

# ANNUAL REPORT

(APRIL 2016 - MARCH 2017)

62<sup>ND</sup> CONVOCATION ISSUE

24 December 2017

यादवपूर विश्वविद्यालय



**JADAVPUR UNIVERSITY**  
KOLKATA 700032  
INDIA

**ANNUAL REPORT 2016-17**

JADAVPUR UNIVERSITY  
KOLKATA 700032

DECEMBER 24, 2017

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## যাদবপুর বিশ্ববিদ্যালয়

**PROFESSOR SURANJAN DAS**  
**VICE-CHANCELLOR**  
 অধ্যাপক সুরঞ্জন দাস  
 উপাচার্য



**JADAVPUR UNIVERSITY**  
**KOLKATA-700 032,INDIA**

**OFFICE OF THE VICE-CHANCELLOR : AUROBINDO BHAVAN ANNEXE**

### PREFACE

The University has crossed yet another milestone in sustaining its continuous march towards academic excellence in consonance with the principles of equity and justice. A perusal of the National Ranking Framework of the Government of India indicates that our University occupies the 1<sup>st</sup> position among State Universities, 5<sup>th</sup> among all Universities, 9<sup>th</sup> among engineering institutions and 12<sup>th</sup> in the overall category. This attainment has been possible because of the academic commitment of my faculty, the adroitness of our officers, the dedication of our employees and sincerity of my students and research scholars. The present Annual Report captures the various facets of the University's achievements for the year 2016-2017. I am sure that despite financial and infrastructural constraints – typical for all State Universities – our University will be able to not only maintain but enrich its position in the academic map of India and of the world.

I take this opportunity of putting on record the expertise of Mr. Abhijit Sen and his colleagues without which the present Report could not have been published. I do hope that the practice of publishing the Annual Report on the Convocation Day will continue in the coming years.

*Suranjan Das*

Suranjan Das  
 24 December

यादवपूर विश्वविद्यालय

PROFESSOR ASHISH S. VERMA, PH.D  
PRO-VICE-CHANCELLOR



JADAVPUR UNIVERSITY  
KOLKATA-700 032,INDIA

OFFICE OF THE PRO-VICE-CHANCELLOR : AUROBINDO BHAVAN ANNEXE

November 08, 2017

**MESSAGE**

It is great to know that we are preparing an Annual Report for Jadavpur University on the occasion of 62<sup>nd</sup> Annual Convocation. As we know that Jadavpur University religiously observe its annual convocation on 24<sup>th</sup> December every year. December 24<sup>th</sup> has its own significance for 2 major reasons : i) Jadavpur University was founded on December 24, 1955, and ii) 24<sup>th</sup> December is also the birth date of the founder Vice-Chancellor of Jadavpur University i.e. Prof. Triguna Sen.

As per my understanding and believes that the Annual Report of an institution is always considered as the mirror image of the institutional growth and progress. This report always provides us the information about our achievements, milestones and major accomplishment in various area during last one year. One of the most important achievements of this year for Jadavpur University is the NIRF ranking.

The progress and achievements of an academic institution like ours is the result of hard work and commitment for the excellence by various stakeholders of the university ecosystem. Apart from academic achievements, this report will also provide us the information about various extra-curricular activities of the university.

I would like to thank to everyone whose hard work, dedication and perseverance make it possible to bring such an excellent and accurate annual report for the year 2016-17 at Jadavpur University. Undoubtedly, I feel privileged to be associated with the publication of this Annual Report.

Ashish S. Verma

## যাদবপুর বিশ্ববিদ্যালয়

DR. PRADIP KUMAR GHOSH  
PRO-VICE-CHANCELLOR  
ডঃ প্রদীপকুমার ঘোষ  
সহ-উপাচার্য



JADAVPUR UNIVERSITY  
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## MESSAGE

This year the university is commemorating its 62<sup>nd</sup> anniversary. In this auspicious and solemn occasion it is a privilege to the university to prepare Annual Report (2016-2017) which will be a source of information. Convocation is a special day in the calendar of an institution of learning and also to the students/researchers who are awarded on this occasion.

At the outset, I offer my heartiest congratulation to each degree recipient. Special congratulation to the medal winners for their hard work & their achievements as their contribution to the society is immense.

The present Annual Report is an ample testimony to the academic attainments of students, scholars and faculty members. The report will also provide us the information about various extra-curricular activities of the university. This report could not have been compiled without the tireless efforts of all sections of the university community.

Dear students and research scholars, my best wishes are always with you for your further pursuits. I am sure your contribution will help in the progress of our nation and make your alma mater proud.

I am glad to be associated with the publication of this Annual Report.

My best wishes to you all.

Dr. Pradip Kumar Ghosh  
Pro-Vice Chancellor  
Jadavpur University

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**SPECIAL CONVOCATION  
AND THE  
61<sup>ST</sup> ANNUAL CONVOCATION ADDRESS  
BY  
ANIL D SAHASRABUDHE\*  
JADAVPUR UNIVERSITY  
24 December 2016**

Honorable Governor of West Bengal and the Chancellor of the Jadavpur University, Shri Keshari Nath Tripathi ji, Professor Suranjan Das, Vice Chancellor of the Jadavpur University, Dr. Ashish Swarup Verma, Pro Vice Chancellor, Professor Sabyasachi Bhattacharya and Shri Rudraprasad Sengupta, recipient of the degree of Doctor of Literature (honoris causa); Professor Tapan Misra, Professor Ashutosh Sharma and Professor Kasturi Lal Chopra, recipient of the degree of Doctor of Science (honoris causa), Dr. Pradip Kumar Ghosh Registrar of the University, distinguished members of the court, executive council, faculty members, persons from the media and most important of all – graduating students and their parents.

It's indeed a great pleasure and honor to address the convocation of one of the finest universities in India, the Jadavpur University. I am thankful to the university administration for inviting me on this coveted occasion. It gives me great pleasure to acknowledge the visionary leadership of the university.

We are aware of the rich history of Jadavpur University through 6 decades of its existence as a formal university. But its roots emanate long before along with freedom struggle of India through National Council of Education. Stalwarts like Sir Rash Behari Ghosh, Shri Aurobindo, Gurudev Tagore, Dr. Amartya Sen, Prof. Amitava Bhattacharya are associated with the great traditions of Jadavpur University. Through out its existence, the university has distinguished itself as a pre-eminent institution with excellence as its motto. It is the hard work and dedication of faculty and support staff, devotion to quality, contribution of illustrious alumni, and vision of administration, which are responsible for making this university one of the top ranking universities in India.

My dear young graduates,

At the outset, I would like to congratulate all those receiving their degrees and medals on this momentous occasion, from this great institution. Today marks an important day in your lives and a significant milestone in your life's journey. Entering into this institution facing intense competition, you pursued your academic work with great dedication. By your hard work and by dedication to maintain high standards, you earned your degrees and awards. It is a moment of pride for you as much as it is for your teachers, parents and all those who had contributed in shaping your life so far.

Dear students, there has been rapid expansion in the number of colleges and universities in India during the last two decades. Today we have 50000 plus colleges, both private and government

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\* Chairman, All India Council for Technical Education (AICTE).

and 780 plus universities. While this number has certainly helped in creating access to higher education and also equity to a great extent, with a GER of more than 24.3% (34.2 million students), the quality of education is much below our expectation in most universities with few exceptions. The quality level of education has unfortunately not seen the degree of growth it should have. The industry bodies such as NASSCOM, CI, FICCI keep lamenting about employability of graduates. This has been often leading to under-employment of graduates. Some of the lacunae pointed out by industry are soft skills such as effective communication, team work, discipline, ethical practice among others.

Hence it is not merely the theoretical courses but hands on practice, work experience, living together with people of different backgrounds, human values, accepting differences, critical thinking, analytical ability, appreciating different art forms, music, drama, participation in sports, NCC, NSS etc which are important for holistic development of students. Those universities who have understood this well and acted have made a difference. Educational institutes and universities are the best places where there is equal opportunity for one and all. Universities are the crucibles where lot of churning takes place and apart from knowledge generation, better understanding of life takes place.

It is in this context that Jadavpur University has provided you an enriching experience which will come to your rescue in times of crisis.

I would like to stress on another aspect. That of life long learning or learning to learn. The technology is changing very rapidly. What is taught in colleges becomes outdated by the time one graduates. The interdependence of one discipline of engineering with the other is more relevant today than at any other time. Hence interdisciplinary research is gaining importance. Not only is Mechanical Engineering and Electronics Engineering or Computer Science and Electronics are relevant to each other, but Physics and Philosophy, Psychology and Management, Engineering and Biology are all relevant to each other. It is often said that students are required to be trained for solving problems which are not even known today using technologies which are yet to be invented. One needs to catch up with any new subject or technology as it emerges, else one becomes irrelevant. Learning never stops. Hence strong foundations in basic sciences become important. Today, through MOOCs and internet, knowledge is available on your laptops and mobile devices. Make best use of this revolution. Keep learning, keep abreast with new developments. MHRD has embarked upon a mission to develop an indigenous MOOCs platform "SWAYAM" and the responsibility is given to AICTE. Large number of courses are already on the portal and many more are getting added. This will create an unique learning experience for everyone, for people of all ages and backgrounds, learning from anywhere, anytime from any device and anyone, the best in the world. The UGC and AICTE have already brought in regulations permitting 20% of the courses through MOOCs. Thus the way of learning, the way one gets knowledge are going to be transformed in a big way in coming years.

Quite often we lament that none of our universities figure in the top global rankings. We need to consistently put our efforts to challenge ourselves and create models of excellence in education so that at least 10-20 institutes appear in global top 100 institutes. We need to devise a strategy for enhancing quality in all institutes and create competition. The National Institutional Ranking Framework is a baby step in that direction. One of the parameters which world rankings look at is diversity; diversity in faculty, in students, in the programs offered, courses offered,

nationalities, cultures etc. Next comes the research outcomes and international collaborations and recognition. Most importantly we need to build strong and world-class graduate schools leading to research, masters and PhDs in a very innovative space.

Last year India produced 21830 PhDs while 1,17,301 are pursuing their PhDs.

Although, these numbers have increased by leaps and bounds compared to a decade ago, there is a long way to go. I am pleased to know that Jadavpur University has been focusing on research work and has several programs running in the university, providing incentives to students for research work. We also need to concentrate on the faculty development programs. They need to be trained right from the time of their induction and during their service. We need to empower them, provide support and change their mindset, work ethics and culture. The attitude of not accepting anything but excellence needs to be inculcated.

For challenging and empowering the student community, recently AICTE in association with I4C, MHRD and 25 ministries of the central government has launched a Smart India hackathon. Through this hackathon, digital solutions to several problems plaguing the government departments are sought so as to make the life of a common man comfortable. Another initiative of AICTE has been that of supporting startup culture in technical institutes so that startup ecosystem is developed in India. Recently, honorable President of India launched this policy during the visitors conference.

My dear students, you are among a few fortunate persons who have had access to an educational experience at this renowned institution. This experience will reward you throughout your life. Knowledge is the supreme power. But mere accumulation of basic knowledge is of limited practical use, unless it is translated into innovations, providing economic or social value. It is transfer of knowledge for economic growth that has revolutionized this world. You must look around and see how some of our countrymen are still struggling to make their living. You have to be sensitive to their problems, find innovative solutions, be nationalistic, care for the nature, be scrupulously honest, put in hard work, dedicate your life for the good of the people of our country and fortune will follow you without seeking.

University education leaves a permanent impression on one's life. The learning curve of a student keeps on rising, keeping him/her interested in getting things done and making things work. The life of a student is full of undying zeal to learn and improve the things around him. I am sure that each one of you have different dreams and undoubtedly, you should never give up on your dreams and aspirations. From the bottom of my heart, I wish each one of you success in your future endeavors.

You all are now standing on the threshold of the real adult life. From now on no one will grade you for well or poorly done homework and evaluate your progress. You are free to go your own way, and it will be absolutely different for everyone. Some of you will continue studies on the post-graduate level and become university tutors or scientists. Other might take up a job in the industry. Some others may become entrepreneurs in their own might and create jobs. When graduation studies are over, it is time to create your own lives, and for this you have the whole world at your disposal. The main thing is to look for opportunities that you really like, and have persistence and faith.

To succeed, the first thing you need is to be in good health and a full capacity to work. If your body and spirit are in harmony and perfect condition, you will be able to go after your dreams

while having fun; you will have enough stamina for action in this world. It is the patience, persistence and perseverance, leading to perfection, which plays a decisive role in success. Sometimes, we come across failures in our lives despite our sincere best efforts. One should not worry too much because of failures, but learn lessons from the failures and not repeat the actions that led to the failures. There is no short-cut in life. Please do not indulge in any type of unethical and unprofessional behaviour to achieve success.

One of the hurdles which often works as a speed breaker is our mental block to think and consider higher targets and goals to be impossible. Our beloved former Honourable President Dr. A. P. J. Abdul Kalam said, I quote, “All technological advancements we have today are the outcome of scientific exploration of scientists of earlier centuries. At no time, man was beaten by problems. He strives continuously to subjugate impossibility and then succeeds.”

All of you here today have a long journey ahead. The years and decades to come will offer you incredible opportunities to reshape the world in which you will live, whether as the head of an establishment or a group or a team or as an individual, who helps make things happen. *Leaders are not just the people in charge; they are the ones, who step forward to make a difference.*

The world outside is not as cozy as college life. Be prepared to take a plunge with all earnestness. You have a great opportunity and responsibility. Whether Skill India, Make in India, Digital India, Smart Cities, Unnat Bharat Abhiyan or Start up India, you have an opportunity and a role to play.

The young men and women graduating today are privileged to be part of this historic journey of India to emerge as a world power. The youth will be shaping the future of India. I urge upon you to be the catalyst for change and I am confident that each one of you have the capability to contribute towards the country's growth. I once again congratulate all of you and wish you all the best and am confident that India story will be scripted by you.

Thank you.

Jai Hind.

**Jai Hind**

**SPECIAL CONVOCATION  
AND THE  
61<sup>ST</sup> ANNUAL CONVOCATION ADDRESS  
BY  
PROFESSOR SURANJAN DAS\*  
JADAVPUR UNIVERSITY  
24 December 2016**

**HIS EXCELLENCY SHRI KESHARI NATH TRIPATHI, THE CHANCELLOR OF THE UNIVERSITY AND GOVERNOR OF WEST BENGAL; RESPECTED ANIL D. SAHASRABUDHE, RESPECTED SABYASACHI BHATTACHARYA, RESPECTED RUDRAPRASAD SENGUPTA, RESPECTED TAPAN MISRA, RESPECTED ASHUTOSH SHARMA, RESPECTED KASTURI LAL CHOPRA, ESTEEMED MEMBERS OF THE COURT AND EXECUTIVE COUNCIL, MY DISTINGUISHED COLLEAGUES AND DEANS OF FACULTIES, ESTEEMED PRO-VICE CHANCELLOR AND REGISTRAR, DISTINGUISHED GUESTS AND THE ALUMNI, FRIENDS FROM THE MEDIA, AND MY DEAR STUDENTS**

On my own behalf and on behalf of the entire University community I take this opportunity of warmly welcoming you to the 61<sup>st</sup> Annual Convocation of a University which continues to play a pioneering role in the enrichment of our country's knowledge economy and nation-building process. I put on record our deep gratitude to His Excellency Shri Keshari Nath Tripathi for kindly agreeing to preside over the august function. Your Excellency Sir, since I assumed my present office in July 2015 you have provided me with a guiding hand in meeting the challenges of university governance, and I do look forward to receiving the same in the remaining years of my tenure. I also sincerely thank our nation's eminent expert in science and technology Professor Anil Sahasrabudhe, currently the Chairman of the All India Council for Technical Education, for kindly consenting to be the Chief Guest and to deliver the Convocation Address. Every convocation enables the University to recognize and celebrate the attainments of leading personalities through the conferment of Honorary Doctorate degrees. This year, too, we propose to honour the country's distinguished historian Professor Sabyasachi Bhattacharya, the esteemed scientist Professor Ashutosh Sharma, the leading expert in technology education Professor Kasturi Lal Chopra, the renowned space scientist Shri Tapan Misra and the celebrated personality in the realm of performing arts Shri Rudraprasad Sengupta. By honouring them the University certainly itself feels deeply honoured.

This year Graduate Degrees will be awarded to 625 students in Arts, 1,128 students in Engineering and Technology and 318 students in Science. Post-graduate degrees will be awarded to 711 students in Arts, 518 in Engineering and Technology and 292 in Science. 165 candidates will receive today their M.Phil degrees. Ph.D. degrees will be conferred upon 214 scholars: 90 in Arts, 125 in Engineering and Technology, 30 in Pharmacy and 214 in Science. 219 medals will be awarded to students and scholars in recognition of their attainments. I sincerely and warmly congratulate the recipients of degrees and prizes after years of hard work.

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\*Address by the Vice-Chancellor, Jadavpur University.

## I. THE UNIVERSITY AND ITS QUEST FOR ACADEMIC EXCELLENCE

For any university the Convocation is a milestone in its constant quest for academic excellence. It provides the institution with an opportunity to recapture its recent attainments and gain a new entry point to plan its future. Your Excellency Sir, I am happy to submit that since the last Convocation of 24<sup>th</sup> December 2015 the University has won new national and international acknowledgements for its academic distinctions. This has been possible due to the collective efforts of the University community and sustenance of our unique tradition to accept modernity but without a blind rejection of tradition, strike a fine balance between traditional and emerging fields of knowledge, and cultivate an interdisciplinary approach to teaching-learning process. I submit some of the highlights of our academic achievements in the past one year that testify to Bengal's polymath Sir Asutosh Mookerjee's vision of the university to be

*a great store-house of learning, a great bureau of standards, a great workshop of knowledge, a great laboratory for the training as well as of men of thought as of men of action. (Convocation Address, University of Calcutta, 1922).*

- The 2017 Times Higher Education World University Ranking and the Times Higher Education BRICS Emerging Economies Rankings have accorded Jadavpur University the first position among all universities of the country.
- The University has been ranked by the National Assessment and Accreditation Council with the highest 'A' Grade with a CGPA credit of 3.68 out of 4.00.
- The University was one of the nation's first universities to be brought under the ambit of the University Grants Commission's scheme of Universities with Potential for Excellence, the second phase of which has been initiated with a financial outlay of Rs.50 crores.
- The University Grants Commission (UGC) has granted ten departments the title of Centre of Advanced Studies, two departments the status of the Department of Special Assistance and five departments the position of Department of Research Support. The Chemistry Department is implementing its DST FIST Programme.
- The University remains the leading partner in the European Union (EU) Project E-QUAL, designed to enhancing Quality, Access and Governance of Undergraduate Education in India. Funded by the European Union to the tune of one million Euros, the project brings together a consortium of six Indian and European universities to develop blended learning materials in four interdisciplinary areas, Critical Thinking, Cultural Studies, Human Ecology, Natural Resource Management and Sustainable Development. The objective of the project is to make a positive intervention in Indian higher education through promotion of Indo-EU Higher Education partnerships and collaborations, which is in accordance with Government of India's plan to internationalise higher education in India and increase access and quality. Under the auspices of the Project a website and course platform are maintained and a bi-monthly online journal titled 'E-QUAL News' is published. The Project is now sought to be linked to the Ministry of Human Resource Development's 'Swayam' initiative.
- Under the Rashtriya Uchchatar Shiksha Abhiyan (RUSA) the University has initiated the process of developing the Eastern Regional Cyber Security Centre.



- A sum of Rs.15 crores – nine from the central and six from the state government — has been sanctioned to begin the construction of Tagore Cultural Complex, possibly the only one of its kind within the country’s University system.
- The University has been able to justify its selection for the second phase of the World Bank’s TEQIP programme through its researches in cutting-edge areas of technological science. The special Centre of Excellence under this programme to undertake researches on ‘Phase Transformation and Product Characterization’ has been granted an extension for another year.
- The University continues to fulfill the mandate of the SYLFF programme which enabled it to receive an endowment of one million US dollars (US\$1,000,000) from Japan’s Nippon Foundation to provide Ph.D. scholarships and grants to our students from Arts Faculty to pursue their researches.
- The University’s School of Cultural Texts and Records – already recognized by the United States Council of Library and Information Resources as one of the world’s ‘best-of-class’ digital scholarship organization — has undertaken the following digitization programmes:
  - (a) Digitization of South Asian Cultural Resources in association with the British Library, UK, and supported by Sir Ratan Tata Trust, Mumbai.
  - (b) Reorganization, Digitization and Cataloguing of the Maulana Abul Kalam Azad collection of Paper Records in collaboration with the Maulana Abul Kalam Azad Institute of Asian Studies, Kolkata.
  - (c) Digitization of Paper Records at the Victoria Memorial Hall, Kolkata.
  - (d) Famine and Death in India and Britain, 1550-1800 in collaboration with Exeter University and supported by AHRC, U.K.
  - (e) Upgrading of the *Bichitra* website, funded by the Jadavpur University.
  - (f) Digitization and Conservation of endangered paper records of the British Indian Association, Kolkata, funded by the Endangered Archives Programme of the British Library, U.K.
  - (g) *Two Centuries of Indian Print* in collaboration with the British Library, U.K.
- The University’s research collaboration with the Government of India’s Defence Research and Development Organization (DRDO) since the 1970s has now found its fruition with the establishment of *Jagadish Chandra Bose Centre for Advanced Technology* (JCBCAT) whose foundation stone was laid on 23<sup>rd</sup> June 2016. The Centre – a DRDO-Jadavpur University Initiative – will develop a Multi-Institute Collaborative Directed Basic Research facility, envisaged to emerge as a centre of excellence in conducting scientific and applied research in directed areas of advanced technology for defence. The Centre will be located in a part of the West Annexe campus (erstwhile National Instruments Ltd. campus) of the University. The JCBCAT will involve all the universities, IITs, NITs and research institutes of the eastern region as well as, the ISI and IISER as participating institutions.
- To commemorate the spirit of Sandipta Chatterjee, a well-known face of television journalism in West Bengal who unfortunately experienced an untimely death, the School of Media,



Communication and Culture launched on 10 December 2015 the *Medianest*, a forum for nurturing new ideas concerning media, politics and ethics. A website [www.medianest.org](http://www.medianest.org) was also started.

- The ‘Eastern Regional Centre for Wasteland Development Programme’ (ERCWDP) – begun in the University in 1989 and subsequently renamed by the Ministry of Environment and Forests, Government of India, as the Regional Centre of National Afforestation and Eco-Development Board (NAEB) — has till date organized 189 workshops and 234 training programmes for the Forest Department officials of West Bengal, Jharkhand, Bihar, Sikkim and Andaman and Nicobar Islands as well as for the grass root level community/organizations. This has benefitted about 1,000 participants. The Centre is registered as one of the 25 Business Incubators under the Ministry of Small and Micro Enterprise, Government of India, for promoting innovative ideas of young entrepreneurs.
- The Centre for Studies and Rehabilitation of Differently Abled Persons has developed an Audio Book Library for the visually impaired students. It is also conducting for such students a basic computer training course and provides 40-character Braille Tactile Reader and scribes for the visually impaired students.
- The School of Women’s Studies was engaged with a variety of research and extension programmes. There has been considerable engagement with associational efforts of domestic workers, focusing on a movement for minimum wages and the right to form trade unions. From the close of 2015 to May 2016, thirteen Occasional Papers were published on numerous issues of domestic workers and auto-rickshaw operators. Members of the School have interviewed in the current year more than 200 respondents in five districts of West Bengal on the problem of child marriage. In another collaborative project with India Foundation for the Arts, Aishika Chakraborty is writing the history of contemporary feminist dance in Bengal. There have been two major publications from the School this year: *Domestic Days* (OUP, 2016) jointly authored by Samita Sen and Nilanjana Sengupta and *Passage to Bondage* (Stree, 2016) edited by Samita Sen. The School organized in April of this year, a major conference on *Women Speak Nation*, with speakers from all over the country, such as Nivedita Menon, Kalpana Kannabiran, Swapan Chakravorty and Jawhar Sircar. An edited volume on this theme by Aishika Chakraborty and Panchali Ray is under contract with Taylor and Francis.
- The School of Energy Studies remains active in developing and enriching knowledge and expertise in ‘Clean and Safe Energy Technologies’ and ‘New and Renewable Energy’. It has developed considerable international reputation for its research publications and patents. The School conducted from the 2<sup>nd</sup> to 14<sup>th</sup> May 2016 an international skill development training programme in the field of Solar Power Engineering in which thirty engineers from Power Department of the Government of Bangladesh participated. The School also provides guidance to post-graduate students in conducting projects relating to Energy Studies.
- The School of Water Resource Engineering is undertaking an EU-India Research Project under Framework FP 77 on Water Sector with seven EU Partners and two Indian Partners. It has also a joint research collaborative programme with Panasonic India Pvt. Ltd. for

development of Arsenic Removal Unit Using Panasonic TiO<sub>2</sub> Photocatalyst and Cost Effective Adsorption Media. The National River Conservation Directorate, Ministry of Environment and Forest and Climate Change, Government of India, entrusted the School with the task of evaluation as Third Party Inspection Agency for River Front Development and Electric Crematorium Works under the National Ganga River Basin Authority for Eastern and North Eastern States.

- The School of Natural Product Studies is currently concerned with such issues related to human health as screening methodologies for drug screening and evaluation, quality control, pharmaco-vigilance, safety surveillance, risk management and marker profiling of medicinal plants. It has also national and international collaborative projects on the development therapeutic leads from natural resources.
- The School of Education Technology and the Strategy Academy Centre for Advanced Studies are jointly offering a programme on 'Post Graduate Diploma in Management and Entrepreneurship' through live and two-way interactive Digital Network. The smart classroom of the School is extensively utilized for recording/editing of the course materials of e-Pathshala of the Department of Sociology, of the E-Qual project and of some projects supported by the UGC's University with Potential for Excellence - Phase II Programme.
- The record of the University's Publication Unit under the stewardship of Professor Abhijit Gupta is most commendable. The Portuguese Government has awarded it a grant of one thousand Euros for publishing a volume of translations of short stories of Rui Zink, and the Japan Foundation has agreed to provide a grant for the translation and publication of *Samudratate Kafka* vol. II by Haruki Murakami. During the past one year the Unit published the following titles:
  - (a) A first-ever translation of Haruki Murakami's *Kafka on the Shore* in Bengali under the title of *Samudratate Kafka*.
  - (b) A translation of stories from Nepalese into English titled *Call of the Hills* with an extensive introduction.
  - (c) A text called *Tamang Selo* focusing on the Tamang Cycle of folk songs.
  - (d) An edited volume on the cosmopolitanism of Rabindranath Tagore.
  - (e) A Bengali translation of Dante's *Inferno* titled *Narak* (to be published in the beginning of 2017).
- The Global Change Programme (GCP) of the University continues to partner with the Inter-Governmental Panel on Climate Change (IPCC), and is at present involved with the preparation of a comprehensive report to ascertain the impact of nature's vulnerability and its mitigation potential in West Bengal.
- Under the initiative of the Education Department Dr. Bishnu Pada Nanda is undertaking a research project to unfold societal attitudes to street children in Kolkata and their subjection to sexual, physical and drug abuse. The project is poised to provide us with new insights on multiple levels of exploitation suffered by such street children.

- Under the Directorship of the Pro Vice-Chancellor, the University's UGC-HRDC organized during the last one year four Orientation Programmes, five Refresher Courses and seven short term Courses where 600 participants in total were involved. The HRDC now has a library to cater to the needs of the participants of Refresher and Orientation Courses.

The University's teaching-learning process is sustained by an effective library system, comprising the Central library, the Salt Lake Campus library and libraries of the Departments, Schools and Centres. We have a collection of 6, 82,701 books, 83,210 bound volumes of subscribed journals and 40,000 non-book materials such as reports, pamphlets, maps and micro-forms. Our library has also a section containing 7,000 volumes of donated books and 8,917 doctoral and 8,631 M.Phil. dissertations of our students. We now have a separate collection on Vietnam, based on a donation received from the West Bengal Chapter of Indo-Vietnam Solidarity Committee. This section was inaugurated on the 4<sup>th</sup> November 2016 by Mr. Tran Quang Tuyen, the Hon'ble Deputy Head of the Vietnamese Embassy in India.

My esteemed faculty members are currently undertaking research projects having a funding of more than thirty six crores of rupees. They are conducting 141 research projects; out of which 16 are UGC Major Research Projects, 57 Department of Science and Technology Research Projects, 14 Department of Bio-Technology Research Projects and 10 Council of Scientific and Industrial Research Projects. Research projects of the University are also supported by the DRDO, Department of Atomic Energy, Board of Research in Nuclear Science, Ministry of Earth Science and Ministry of Mines, Government of India, All Indian Council of Technical Education, Indian Council of Medical Research, Indian Council of Social Science Research, Indian Council of Historical Research, Spices Board and Department of Food Processing Industries and Horticulture, Government of West Bengal. Twenty-one Ph.D. researchers are working under the Visvesvaraya Scheme.

The research findings of our faculty members are adequately reflected in their publications. According to a recent SCOPUS survey Jadavpur University occupies the second position among the universities of the country in terms of journal publications in science and technology over a ten-year period. During the year under present review my colleagues have published 2,772 research papers in international/national/ peer reviewed journals, conference/ seminar/ symposium proceedings, and book chapters. They have also published 128 books/monographs during the same period. As per Scopus data the H-Index of science and technology publications of my colleagues during the last ten years is 115.

My colleagues have received national and international recognitions for their academic expertise. Professor Somnath Ghosh of Civil Engineering Department, and currently Dean of Faculty of Engineering and Technology, has been awarded the prestigious membership of the Institution of Structural Engineers, London. Professor Pratulananda Das of the Department of Mathematics has been nominated a member of The National Academy of Sciences (Allahabad), and elected a Fellow of West Bengal Academy of Science and Technology. Professor Biswajit Mukherjee has been jointly awarded the C.J. Shishoo Award by the Association of Pharmaceutical Teachers of India for outstanding contribution to research in pharmaceutical science in 2016. Professor Sadhan Kumar Ghosh of Mechanical Engineering Department has been recognised as an international expert by the United Nations Centre for Regional Development. He is the

Organizing Chair of the 4<sup>th</sup> 3R International Conference on Materials Cycle 2017 and the Chair Elect of 7<sup>th</sup> International Conference on Solid State Management 2017. Professor Goutam Sutradhar of the Mechanical Engineering Department has been nominated the Vice-Chairman of the Board of Governors of Vivekananda Technical Institute which is being established under the aegis of the Foundry Cluster Development Association. Professor S. Saraswati, of the Department of Construction Engineering served as the President of Indian Concrete Institute and Vice-President of Asian Concrete Federation. Professor Sivaji Bandyopadhyay, Department of Computer Science and Engineering, has received Lokmat National Leadership Award for Best Teacher in Engineering. I put on record the path-breaking research of a young alumnus of the Department of Geological Sciences — Rajdeep Dasgupta, currently at Rice University, USA — in the field of Earth and Planetary Sciences. His work has won a number of prizes and he has been nominated as a Fellow of American Geophysical Union (AGU).

Since the last Convocation our colleagues across faculties have registered their effective presence in national and international conferences and academic meetings. The following list is indicative and not certainly exhaustive.

Dr. Sucheta Bhattacharya, Department of Comparative Literature, delivered a seminar lecture at the National University of Singapore.

Professor Anuradha Roy, Department of History, delivered invited lecture on Rabindranath Tagore at the Institute of African and Asian Studies, Humboldt University, Berlin, Germany. The Indian History Congress 2015 awarded her 'Savitri Chandra Shobha Memorial prize' for best book on literature and culture for her book *Cultural Communalism in Bengal 1936-1952*.

Professor Nupur Dasgupta, Department of History, attended an International Workshop organised by the Scottish Centre for Global History, University of Dundee, UK.

Dr. Sudeshna Banerjee, Department of History, delivered invited public lectures at the Institute of African and Asian Studies, Humboldt University, Berlin, Germany and Faculty of Social Sciences, University of Gottingen, Germany. She has been appointed as Visiting Professor at the Institute of African and Asian Studies, Humboldt University, Berlin, Germany for a semester.

Dr. Tilottama Mukherjee, Department of History, presented a paper at the 4<sup>th</sup> International Congress of Bengal Studies, 2015 at the Tokyo University of Foreign Studies, Japan and another paper in a workshop at Keio University, Japan.

Professor Tapan Sankar Bhattacharyya, Department of Sanskrit, received the Vyasasri National Award, 2016 of the Maharshi Vyasdev National Research Institute, Odisha.

Professor Madhumita Chattopadhyay, Department of Philosophy, delivered a lecture at the International College for Post Graduate Buddhist Studies, International Institute for Buddhist Studies, Tokyo, Japan.

Professor Lopamudra Choudhury, Department of Philosophy, presented a paper in the International Conference on Art for All at the Department of ELT, Typhlology and Alternative Communication, The John Paul II Catholic University of Lublin, Poland.

Professor Sashinungla, Department of Philosophy, presented a paper at the International Workshop at Nordic Institute for Asian Studies, Copenhagen, Denmark.

Dr. Moushumi Guha, Department of Philosophy, delivered a colloquium lecture at the Department of Philosophy, Carleton University, Ottawa, Canada.

Dr. Maitreyee Datta, Department of Philosophy, presented a paper at the 1<sup>st</sup> International Conference on Application in Trento, Italy.

Dr. Smita Sirker, Department of Philosophy, presented a paper at 15<sup>th</sup> Congress on CLMPS 2015 at the University of Helsinki and attended a Workshop in Hamburg, Germany.

Dr. Manas Ghosh, Department of Film Studies, presented papers at the K. U. Leuven University, Belgium; the Centre for South Asian Studies at Paris, France; Fudan University, China and University of Cambridge, U.K.

Dr. Moinak Biswas, Department of Film Studies, presented a paper at the 4<sup>th</sup> International Conference of Bengal Studies at the Tokyo University of Foreign Languages, Japan. Dr. Biswas was invited to participate in the 11th Shanghai Biennale in November, 2016 as an artist.

Dr. Madhuj Mukherjee, Department of Film Studies, presented papers at the International Conference on Revising Politics in Indian Film II at the Harvard University, U.S.A. and the Inter-Asia Cultural Studies Society Conference, Indonesia.

Professor Ananda Lal, Department of English, delivered invited lecture on “The Arts in India” at the Augustana College, U.S.A.

Professor Abhijit Gupta, Department of English, delivered invited lectures on “The Academic Book of the South” at the British Library, London and on “The Evidence of the Title-Page” at the University of Chicago, U.S.A.

Professor Paromita Chakravarti, Department of English, delivered invited lecture at the Centre for Gender and Sexuality, University of Amsterdam, The Netherlands. She also presented a paper at the Heidelberg University.

Professor Amlan Dasgupta, Department of English, presented a paper on Digital Archives at a Workshop at the Oxford University Centre for the Environment.

Professor Joyashree Roy, Department of Economics, delivered invited talk at the Regional Forum on Climate Change at the Bangkok-Asian Institute of Technology, Thailand; Institute of Advanced Studies in Sustainability, Germany and at Oslo, Norway. She also presented papers at Galle, Sri Lanka; Bristol, U.K.; Paris, France; Berkley, U.S.A.; New Orleans, U.S.A. and Cambridge, U.K.

Professor Gautam Gupta, Department of Economics, presented a paper on “Land Acquisition” at Dr. Sun Yat-sen University, China.

Professor Tridib Chakraborti, Department of International Relations, delivered special lecture on “My experience at Dublin” and another public lecture at the Dublin City University, Dublin, Ireland. Professor Chakraborti was selected as a visiting Professor of the ICCR’s Chair of Political Science and International Relations at the Dublin City University, Dublin, Ireland.

Professor Anindya Jyoti Majumdar, Department of International Relations, delivered public lecture at the Palmetto Club, Columbia, South Carolina, USA. He received the prestigious Fulbright Nehru Academic and Professional Excellence Fellowship at the Walker Institute of International and Area Studies, University of South Carolina, Columbia, USA.



Professor Rajib Bandyopadhyay, Department of Instrumentation and Electronics Engineering, presented paper at the 16<sup>th</sup> International Symposium on Olfaction and Electronic Nose (ISCON, 2015) at Dijon, France. He has been elected as the President of International Society of Automation (ISA), Kolkata Chapter.

Dr. Susmita Ghosh, Department of Computer Science and Engineering, delivered a lecture at the School of Bioinformatics and Systems Biology, King Mongkut's University of Technology, Thonburi, Thailand.

Professor Ujjawal Maulik, Department of Computer Science and Engineering, delivered lectures at the Cornivus University, Budapest, Hungary and University of Ljubljana, Slovenia.

Professor Debesh Kumar Das, Department of Computer Science and Engineering, attended 6<sup>th</sup> ASQED 2015 at Kuala Lumpur, Malaysia and 10<sup>th</sup> IEEE IDT 2015 at Jordan.

Dr. A.S. Chowdhury, Department of Electronics and Telecommunication Engineering, delivered lectures at the Institute of Computing, University of Campinas, Brazil and Institute of Mathematics and Statistics, University of Sao Paolo, Brazil.

Professor Chandan Kumar Sarkar, Department of Electronics and Telecommunication Engineering, delivered invited lecture at the ICMAT 2015 Conference at Singapore.

Professor Subir Kumar Sarkar, Department of Electronics and Telecommunication Engineering, delivered keynote address at the ICEEE 2015 at Rajshahi University, Bangladesh.

Dr. Sayan Chatterjee, Department of Electronics and Telecommunication Engineering, participated in the IEEE Radio 2015 at Mauritius.

Dr. Pratyusha Rakshit, Department of Electronics and Telecommunication Engineering, participated in the IEEE Congress 2015 at Sendai, Japan.

Professor Amit Konar, Department of Electronics and Telecommunication Engineering, has been nominated as a prestigious Fellow of National Academy of Engineers (FNAE) in 2015.

Professor Amitava Gupta, Department of Power Engineering, acted as Resource Person at the Annual meeting of the International Nuclear Security Educators' Network at the International Atomic Energy Agency (IAEA), Vienna.

Dr. A. Kundu, Department of Metallurgical and Material Engineering, delivered lectures at the Department of Chemical and Materials Engineering, University of Idaho, USA and School of Mechanical and Materials Engineering, Washington State University, USA.

Professor D. Ghosh, Department of Metallurgical and Material Engineering, presented a paper in TMS 2016 at Nashville, Tennessee, USA.

Professor T. K. Pal, Department of Metallurgical and Material Engineering, has developed a new coated electrode for welding armour steel and has filed for patenting.

Professor Chiranjib Bhattacharjee, Department of Chemical Engineering, delivered invited lectures at the Norwegian University of Science and Technology, Norway and Institute of Mechanics, Bulgarian Academy of Sciences, Sofia, Bulgaria.

Professor Ranjana Chowdhury, Department of Chemical Engineering, delivered invited lecture at the University of Stavanger, Norway.

Dr. U. Sarkar, Department of Chemical Engineering, presented papers at the 4<sup>th</sup> International Conference on HYMA 2015 in Spain, 5<sup>th</sup> International Conference on ASEE 2015 in Malaysia and ECO-BIO 2016 at Rotterdam, Netherlands.

Dr. Rajat Chakraborty, Department of Chemical Engineering, presented a paper at the International Conference on AEDCEE, Bangkok.

Professor Kunal Roy, Department of Pharmaceutical Technology, delivered invited lecture in a Conference at the Jackson State University, USA. He has been recognised as one of the Top Ten Authors in the list of Active Researchers in the subjects of Chemistry and Pharmacology, Toxicology and Pharmaceutics in the Bibliometric Analysis published by DST, GOI.

Professor Samiran Chattopadhyay, Department of Information Technology, delivered a lecture at the Anglia Ruskin University, UK.

Dr. Sruti Gan Choudhuri, Department of Information Technology, delivered invited lecture at the University of Montreal, Canada.

Dr. Paramita Bhattacharjee, Department of Food Technology and Biochemical Engineering, presented a paper at the 15<sup>th</sup> European Meeting on Supercritical Fluids at Essen, Germany.

Professor Sudipta De, Department of Mechanical Engineering, a core committee member of the Global Change Program of Jadavpur University was invited to present achievements of the international collaborative project with title 'Road map for decarbonisation of Indian energy system: exploring innovative solutions' under the Indo-Norwegian Cooperation Program at the Joint Working Group Seminar on Higher Education and Research Collaboration, India-Norway on 16<sup>th</sup> September at Oslo, Norway. He also visited University of Stavanger, Norway under the same Indo-Norwegian Cooperation Programme.

Professor Sadhan Kumar Ghosh, Department of Mechanical Engineering, delivered invited lectures among others at Aston University (UK); Newcastle University (UK); HK Baptist University (Hong Kong); Kyonggi University (Korea); Seoul National University (Korea); Asian Institute of Technology, (Thailand); Kunming University(China). He also received Excellence Paper Award, 2015 at the International Conference on Waste Management and Technology at Tsingua University, China. He was invited as an international expert by the United Nations Centre for Regional Development. He has developed academic collaborations with Tsinghua, Beijing and Hefei Universities of China, with Danang University of Vietnam, with the National University of Laos, University of Novi Sad of Serbia and the University of Perugia of Italy.

Professor Nandadulal Bairagi, Department of Mathematics, received the UGC Research Award 2014-2016.

Dr. Sukhendu Kar, Department of Mathematics, delivered invited talk at the International Conference on Mathematics and Mathematics Education (ICMME 2016) at the Education University, Hong Kong.

Professor Subir Sarkar, Department of Geology, delivered invited lecture and chaired a plenary session at the 2<sup>nd</sup> International Palaeography Conference at Beijing, China.

Dr. Anupam Ghosh, Department of Geology, presented two papers at the XIX INQUA Congress at Nagoya, Japan.

Dr. Dipankar Mandal, Department of Physics, presented papers at the International Conference on Nanomolecules 2015 in Manchester, U.K. and Arizona, U.S.A. He has developed an organic Nano-Piezoelectric Device, a new flexible biocompatible nanogenerator made with fish scales, that can harvest energy from everyday motion and turn it into electrical power. Mr. Sujoy Kumar Ghosh, PhD scholar of Dr. Mandal, has participated in the 66<sup>th</sup> Lindau Nobel Laureate Meeting from 26 June to 1 July 2016 at Lindau Germany.

Dr. Partha Pratim Ray, Department of Physics, attended the 25<sup>th</sup> International Photovoltaic Science and Engineering Conference at Busan, Korea.

Dr. Debotosh Bhattacharjee, Centre for Microprocessor Application for Training, Education and Research, chaired a technical session and presented a paper in TENCON – 2015 at Macau. He also presented papers at the 23<sup>rd</sup> International Conference on Computer Graphics, Visualisation and Computer Vision 2015 at Plzen, Czech Republic and the 7<sup>th</sup> International Conference on Computational Intelligence, Communication Systems and Networks at Riga, Latvia.

Professor Nandini Mukherjee, Department of Computer Science and Technology, attended 15<sup>th</sup> IEEE/ACM International Symposium on CCGrid 2015 at Shenzhen, China and 9<sup>th</sup> International Joint Conference on Biomedical Engineering Systems and Technology at Rome, Italy.

Dr. Ram Sarkar, Centre for Microprocessor Application for Training, Education and Research, has been selected for Fulbright-Nehru Post-doc Fellowship at the University of Maryland, USA.

Dr. Subhadip Basu, Centre for Microprocessor Application for Training, Education and Research, has been selected as Visiting Professor at the University of Lorraine, France and also received Research Award from the UGC for 2016-2018.

Dr. Piyali Basak, School of Bioscience and Engineering, presented papers at the EMN meeting on smart and multifunctional material at Berlin, Germany and European Chapter meeting of the Tissue Engineering and Regenerative Medicine International Society at Uppsala, Sweden.

Dr. Pankaj Kumar Roy, School of Water Resource Engineering, presented a paper at the Conference on ASET at Bangkok, Thailand.

Professor Asis Mazumdar, Water Resource Engineering, acted as President (Engineering Science Section) of 103<sup>rd</sup> Indian Science Congress.

Professor K.K.Chattopadhyay, School of Materials Science and Nanotechnology, presented a paper at the 9<sup>th</sup> International Conference on Research in Engineering, Technology and Sciences at Imperial College, London, and another paper at the Joliot-Curie Conference at Murray Edward College, Cambridge. He has been awarded Dr. Meghnad Saha Gold Medal by the Asiatic Society. He has also filed one of his research outcome for patenting.



Dr. Pulok K. Mukherjee, School of Natural Product Studies, delivered invited lectures at the 16<sup>th</sup> International Congress of Ethnopharmacology at Yulin (China), 15<sup>th</sup> International Congress of the International Society for Ethnopharmacology at Petra (Jordan), and 15<sup>th</sup> Annual International Conference on the Botanicals at Mississippi, (U.S.A.). He has received the Tata Innovation Fellowship of the Department of Biotechnology, New Delhi.

Professor Mihir Kumar Chakraborty, Visiting Professor, School of Cognitive Science, delivered invited lecture at the University of Warsaw, Poland.

Dr. Aparup Konar, Director of Physical Instruction, presented a paper at the 2<sup>nd</sup> International Conference on Recent Technological Advancement & Entrepreneurship in Sports at Varanasi.

Professor Amitava Chatterjee, Department of Electrical Engineering, participated in the IEEE International Conference on IST 2015 at Macau and the IEEE International Conference on ICIEA at Auckland, New Zealand.

Professor K. Bandyopadhyay, Department of Construction Engineering, presented a paper at the 14<sup>th</sup> Asian Regional Conference at Fukuoka, Japan.

The period under present consideration also saw the organization of fifty seven seminars, conferences, workshops and training programmes at the University, of which eight were of international nature. International programmes were organized among others by the Centre for Distributed Computing, Department of Comparative Literature and Rabindranath Studies Centre, Department of Sanskrit, School of Water Resources Engineering, Centre for the Study of Religion and Society, Centre for Canadian Studies, Department of Construction Engineering and Department of Instrumentation and Electronics Engineering.

This University deserves the credit of pioneering West Bengal's University-Industry Partnership Programme. Through the Industry-Institute Partnership Cell the University remains actively involved with Research and Development Programme, enabling it to earn about Rs.11.5 crores. This Cell has extended consultancy services to such public and private bodies as the Public Health Engineering Department, Government of West Bengal, the Public Works Department, Government of West Bengal, the Central Public Works Department, Eastern Railways, Prashar Bharati, BSNL, Kolkata Municipal Corporation, State Bank of India, United Bank of India, Haldia Development Authority, Haldia Dock Complex, Life Insurance Corporation of India, Indian Oil, Bridge and Roof, Steel Authority of India, Tata Steel, Larsen and Toubro, Simplex Projects, Simplex Infrastructures, and Diamond Beverages. I particularly congratulate my students for taking the initiative of setting up the Entrepreneurship Development Cell which should herald a new phase for Start-Up programmes in the University.

Jadavpur University and NIELIT, Kolkata, have signed a Memorandum of Understanding to jointly offer career oriented certificate courses. The first course on 'Skill Development Training on Electricity and Safety Practices' – initiated by the Electrical Engineering Department – was successfully conducted in 2016. The remarkable response received by it has prompted the University not only to continue this course but also to offer another course on 'Skill Development Training on Installation and Maintenance of Electrical and Electronics System' from 09/01/2017 with a duration of six months.

The performance of our Placement Cell, revamped with University's own resources, is certainly laudable. Through the Cell over a thousand offers were received from such reputed companies as Accenture, Amazon, Adobe, Deloitte, Ernest and Young, Goldman Sachs, Honeywell, IBM, Infosys, ITC, Larsen and Toubro, Maruti, Microsoft, Oracle, Philips, PWC, Reliance, Rolls Royce, Samsung, Siemens, Star, TCS, Texas Instruments, VISA, Viacom 18, WIPRO and Zee TV. One of our students received a compensation package worth Rupees one crore from Google. But I do believe we need to develop a Finishing School to prepare our students to more effectively meet the demands of the job market. I would also urge the Placement and Training Cell to undertake exercises for the benefit of social science and humanities students.

The University administration remains aware of the urgent need to fill up academic vacancies to sustain our quest for academic excellence. Since I assumed office on 15 July 2015, we have been able to recruit twenty Assistant Professors and three Associate Professors. These were related to vacancies which had been already advertised. Subsequently, 83 academic posts were advertised, and the recruitment will take place once a legal hurdle is crossed. Since the last Convocation 125 faculty members were promoted to Professorships and 24 to Associate Professorships under the Career Advancement Scheme. We also have a significant number of vacancies in the non-teaching sector. I am happy to report that these vacancies have been advertised and the process of recruitment has been initiated. However, we have been able to promote 70 non-teaching staff colleagues to their respective higher pay band under the Career Advancement Scheme (CAS). We are also discussing with the Government the issues of the CAS and additional increments for receiving Ph.D. degrees for my officer colleagues, which they richly deserve.

I compliment my colleagues for attaining academic excellence despite acute scarcity of space and absence of adequate infrastructure. The shortage in class-room and laboratory space has attained serious proportion consequent to the additional reservation of seats for students from backward social groups. To address the space issue we are approaching the State Government for financial assistance. Meanwhile, with the help of the UGC we are trying to create a composite building for the Arts Faculty in the Main Campus and extend the floor space and optimally utilise the space in the existing buildings of the two campuses. We are also renovating a few other buildings in both the campuses by utilising the XII Plan grant of the UGC. A grant from the Ministry of Human Resource Development, Government of India, is also being utilised for constructing a new Technology Bhavan in the main campus. The striking disparity in the realm of infrastructure between our university and central universities is certainly regrettable, although in terms of input-output ratio the academic excellence of my colleagues have outstripped the national average in the university sector.

## **II. THE UNIVERSITY AND THE INTER- NATIONALISATION OF HIGHER EDUCATION.**

During the past one year Jadavpur University has signed 21 Memorandum of Understandings (MOU) with 21 international institutions of higher learning. Some of the notable ones are with The University of Pisa (Italy), Aston University, University of Southampton and University

of East London (UK), Yunnan Normal University and Jiangsu University (China), Universitatea Tehnica "Gheorghe Asachi" Din Iasi (Romania), Asian Institute of Technology (Thailand), University de Sevilla, España (Spain), the State University of New Jersey, (USA) and the University of Free State (South Africa). The School of Energy Studies has developed collaboration with the Yunnan Normal University and Jiangsu University of China in the field of solar power engineering. It is also exploring areas of collaboration with the Newcastle University and the University of Surrey under the auspices of the UK's Royal Society's Global Challenge Research Program. Through the UGC-UKIERI Scheme the University has become linked to such British universities as the Cardiff University, St. Andrews University, Cranfield University, Aston University and the University of Hull. Professor Sudipta De and Professor Jayashree Roy are involved with Indo-Norwegian Cooperation on Global Change. Collaborative research projects are also being undertaken with the University of North Texas (USA); University of Reading (UK); Universitat de les Illes Balears (Spain); University of Oulu (Finland); Ecole Polytechnique (France); Osaka University (Japan); Max Plank Institute of Colloids and Interface and University of Bonn (Germany); University of Illinois, Chicago and University of South Carolina (USA); Lund University (Sweden); University of New Brunswick (Canada); University of Adelaide (Australia).

St. John's University, New York, has just received the United States funded Fulbright-Hays Award, for its proposed programme to bring 12 New York City teachers to the Jadavpur University for learning the Bengali language and studying the Bengali culture. The six week programme is scheduled to run from 1 July to 12 August 2017. We currently have 100 international students enrolled in the University, of whom 62 are pursuing regular courses and 38 language diploma courses. Once the University has its International Students' Hostel the number of foreign students in the campus is poised to rise significantly.

Jadavpur University is a significant participant in the Erasmus Mundas programme, funded by European Commission. Professor Sadhan Kumar Ghosh of the Department of Mechanical Engineering is the Principal Investigator of a collaborative research project with Aston University, UK and Asian Institute of Technology, Thailand under the auspices of this programme. Professor Susmita Ghosh of Department of Computer Science and Engineering is coordinating a Scholarship Project under Erasmus+ programme with Universidad Politecnica de Madrid (UPM - SPAIN) for International Credit Mobility. Under this Scheme, students of Jadavpur University can pursue a part of their course curriculum in some European Universities with full financial support. Professor Samiran Chattopadhyay is the Indian Coordinator of three Erasmus Mundus International Mobility Programmes, funded by Education Audiovisual and Culture Executive Agency under European Commission. In each of these programmes, there are about 17 partner countries from Asia and Europe. The total value of these programmes is Euro 8.5 million. About forty students from India, of which 90% are from Jadavpur University, have visited or are scheduled to visit partner European Universities for Post Graduate, PhD and Post-Doctoral studies. Faculty mobility between Jadavpur and European universities also take place in a regular basis. Such interactions have resulted in joint research initiatives and publications and organization of international conferences. Professor Subrata Mukhopadhyay, Department of Chemistry and former Dean of Science, and Dr. Sanjay Gopal Sarkar, Joint Registrar, visited

the Babes-Bolyai University, Cluj, Romania under the Erasmus+ programme for strengthening academic tie-up. Ms. Poulami Roy (Ph.D. Scholar), Ms. Madhurima Mazumder (PG student), Ms. Gargi Chatterjee (PG student) and Ms. Rhitama Basak (UG student) are scheduled to be in the Babes-Bolyai University for one semester during 2016-17. Under another Erasmus+ programme for 2016-17 Somak Mukherjee and Utsa Dasgupta – both Ph.D. scholars have been selected to join the exchange programme with the University of Bologna, Italy.

The University hosted delegations from several overseas Universities and Government agencies to explore possibilities of academic collaboration. I particularly mention the fruitful Round-Table that Jadavpur University hosted on 10 November 2016 with a select group of British and Indian Vice-Chancellors to discuss issues concerning Indo-British academic cooperation. Our University cooperated with the School of Chinese Language, Kolkata, to be a lead partner in the Chinese Education Fair held in Kolkata on 25 and 26 November 2016.

### **III. THE UNIVERSITY AND ITS COMMUNITY**

The University has sustained its tradition of fostering a complementary relationship between academic, co-curricular and extra-curricular activities. I congratulate my students and colleagues in the Sports Board for collectively overcoming the impediments of inadequate infrastructure to win laurels for the University. Subhankar Pramanick, a student of UG-1, Department of International Relations, won the Gold Medal in Rifle 50 meter prone event in the International Shooting Sports Federation Junior World Cup held at Gabala, Azerbaijan in September 2016. He is preparing to represent the nation in 2020 Olympics. Abhimanyu Mitra, a student of UG-1, Department of Physics, participated in the World Junior Circuit Indian Junior and Cadet Open (Premium) Table-Tennis Championship held at Indore in September 2016. He also won the title in Junior Boys and Junior Boys Doubles at the 77<sup>th</sup> Junior and Youth National and Inter-State Table Tennis Championship held from 24-29 November 2015 at Dharmshala. He even received the Bronze Medal in the IIEVEN Sports 2015 India and Junior and Cadet Open ITTF World Junior Circuit Premium Event held at Indore from 9 to 13 September 2016. Shweta Brahmachari, a student of UG-1, Department of International Relations, represented India in the Asian Junior Rowing Championship 2016 held in Thailand from 20<sup>th</sup> October, 2016. Neha Ghosh won Silver Medal and Shreen Ghosh won Bronze Medal in 500 meters Indoor Rowing at the BRC Inter-College Championship, 2015. Tania Debnath of UG-1 of International Relations Department participated in the NCC National Games (Basketball) held between 15 and 26 October 2016 at New Delhi. Debmalya Chakraborty and Shiladitya Bhadury have been selected to participate in the trial for West Bengal Combined University Cricket Team in P.Sen Memorial Trophy Tournament. Our University Table Tennis (Women) team secured 3<sup>rd</sup> position and the Chess team (Men and Women) won the 4<sup>th</sup> place in the East Zone Inter University Tournament 2016-17 and both the teams have been qualified for All India Inter University Competition 2016-17.

Between 25<sup>th</sup> and 31<sup>st</sup> December 2015 the students and teachers of the Department of Physical Education conducted a leadership camp at Shimurali village of Nadia District where physical activities and athletic competitions were organised for the local children. On this occasion my students in the Post Graduate Diploma in Yoga Therapy course organized a Health Awareness and Check-Up camp which evoked a keen local response. The students of the same Department

also joined the All Bengal Inter Physical Education Institutes Cultural and Athletic Meet at Visva-Bharati on 29<sup>th</sup> and 30<sup>th</sup> March, 2016, securing the 1<sup>st</sup> position in the March Past and winning 15 medals in individual athletic events.

In response to the request of the Ministry of Human Resource Development, Government of India, the University celebrated the *Azadi 70* from the 9<sup>th</sup> to the 23<sup>rd</sup> of August 2016 in which about 600 members of the University community participated. Jadavpur University, which had won the National Championship in the 12<sup>th</sup> National Youth Parliament Competition held 23 September 2015, repeated its feat at the 8<sup>th</sup> June 2016 Youth Parliament held at the Parliament Library Building, New Delhi. The University received the Running Trophy of the Youth Parliament Championship. Jadavpur University Model United Nations (JUMUN) was organized by the Debating Society on 31<sup>st</sup> March, 1<sup>st</sup> and 2<sup>nd</sup> April, 2016. Our Science Club continued its free tutorial programme for the under-privileged children. The Mountaineering and Hiking Club, the Music Club, the Photography Club, the Quiz Forum, the Chess Club, the Art and Literary Society organized their own activities throughout the year and successfully participated in inter-university competitions. Agnidhra Gain won the third position in Light Vocal Solo, Rahul Kalikotey the second place in Western Vocal Solo, Utsav Biswas and Shreyan Chatterjee the third rank in Debate and Tanmoy Koley the second position in Cartooning and third place in Collage at the 30<sup>th</sup> AIU Inter-University East-Zone Youth Festival hosted by the Tezpur University. Rahul Kalikotey was also awarded the third position at the Mysore University National Youth Festival.

The values of equity and access have remained the cardinal principles of University governance. We try to remain particularly alive to these codes in matters relating the students for whom we all exist. Between 1<sup>st</sup> April 2015 and 31<sup>st</sup> March 2016 the University granted full-free studentship to 571 students, half-free studentship to 169 students and Endowment Scholarships to 45 students. Three students received the prestigious ABB Jurgen Dormann Foundation Scholarships; three of our students won the AREVA (France) Scholarship to pursue Ph.D. course in Nuclear Engineering. Sixteen needy but meritorious girl students are enjoying the Udayan Shalini Fellowship. We have also been able to extend one-time financial assistance to 143 needy students. It is indeed a matter of deep regret that we are unable to provide hostel facilities to all deserving students. At the present moment 1157 boys and 467 girls are being accommodated in 10 men's hostels and four girls' hostels. However, with the UGC's financial support we are constructing another floor of the New Boys' Hostel. We have also submitted a proposal to the State Government for financial assistance for adding another floor to the Girls' Hostel in the Main Campus. These are but small steps towards addressing the issue of hostel accommodation for our students.

It certainly goes to the credit of the University community for fulfilling its social obligations to the broader sections of the civil society. Our National Service Scheme (NSS) unit remains associated with health, pulse polio immunisation and blood donation camps, value education workshops, cleanliness programmes, Yoga and Meditation programmes and Education and Literacy meets both in urban and rural areas. The NSS Unit conducted slum development programmes at Baghajatin Rabindra Palli and Thakurpukur. Our NSS student-volunteers —



Nazbul Gazi, Samip Sinchuri and Devapriti Jana — participated in the national Republic Day Parade at Rajpath, while their compatriots — Samit Naskar, Sankari Das, Payel Giri, Dipa Sarkar, Koyel Kar, Subrata Khetri and Ranjit Jana — joined the State Republic Day parade at Red Road. Subrata Khetri, Ranjit Jana, Nazbul Gazi, Subhankar Halder, Biswendu Ghosh, Devapriti Jana, Dipti Zimba, Koyel Kar, Sankari Das and Madhavi Mandal of the NSS unit were selected for the Adventure Programme at the Atal Bihari Vajpayee Institute of Mountaineering and Allied Sports, Hatkoti, Himachal Pradesh. Ms. Sona Shohal and Ms. Sulagna Saha were active participants at the National Integration camp for women at the University of Mumbai. Our faculty members have also remained active with the NSS. Dr. Atanu Saha joined the Training of Trainers Regional Workshop on prevention of Substance (Drugs) Abuse at North East Hill University; Dr. Goutam Sarkar and Dr. Arun Mahata attended the Training of Trainers on Life Skills at Ranchi.

The University NSS unit conducted Swachh Bharat Abhijan programme in the campus and its neighbourhood. It also celebrated Rabindra Jayanti, the World Environment Day, the Banomahotsab Week, the Independence Day and National Youth Day. The birthday of A. P. J. Abdul Kalam, former President of India, was commemorated on 13 August, 2015. The NSS unit, too, organised seminars on ‘Life and works of Asutosh Mookerjee’, ‘Drug Abuses’, ‘Significance of National Integrity and Communal Harmony’ and ‘Value Education’.

Mention needs to be made of other social outreach activities conducted by the University. The Department of Adult, Continuing Education and Extension organised three courses on Sewing and Tailoring for the rural underprivileged women and two courses on Sewing (basic) for the street children and vocational courses for the deaf and differently-abled persons. Utilising the financial support from the UGC, our faculty members and officers are carrying out 11 “Extension Activities” in various parts of the State which are directly beneficial for the common people and the society. The Department of Computer Science and Engineering donated its low-end computers to the NGOs engaged with the spread of computer literacy. I hope other Departments of the University will imbibe the spirit demonstrated by my colleagues from the Computer Science and Engineering Department.

On 21 October 2016 the University in collaboration with the West Bengal Fire and Emergency Services organised a workshop-cum live demonstration on ‘Awareness in fire safety and recent technology’ which was attended by Shri Sobhandeb Chattopadhyay, Hon’ble Minister of Power and Non-Conventional Energy Sources, Government of West Bengal, Mr. Sanjoy Mukherjee, the Director-General of Fire Services, Government of West Bengal, and experts from West Bengal Fire and Emergency Services and Kolkata Police Disaster Management Group.

The University has always cooperated with the regulatory bodies to undertake exercises for the benefit of the stakeholders in higher education. The latest instance was the hosting on 23 September 2016 the Eastern Regional Consultative meeting of the UGC’s Seventh Pay Review Committee (PRC) for revision of pay scales and other service benefits of the academic staff of the universities and colleges. The Chairman of the Committee Professor V. S. Chauhan and his team interacted with a wide range of Vice-Chancellors, representatives of teachers and

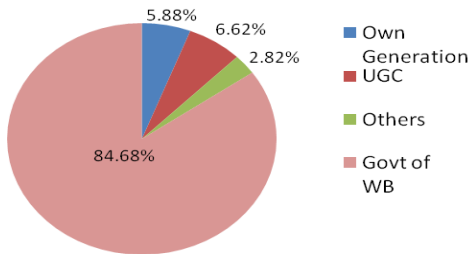
officers of universities and colleges as well as with Principal Secretaries of Education Department of the concerned states of the region.

During the period under consideration we have been able to initiate the development of an indigenous software for the University's management system. This has been possible because of the initiative taken by Centre for Distributed Computing and the support received from all sections of the University community. We remain committed to making university administration student friendly, transparent and accountable.

The University shares with other state universities severe financial constraints. This is inevitable in view of the distorted nature of central funding for state universities where about 65% of the UGC funding goes for the few central universities. Not unnaturally, out of the University's annual outlay of Rs.260.01 crores in 2015-16, the state government's share accounted for as much as 73.12%, while that of the UGC's a paltry 13.62%. The University's own generation of fund during the same period rose to Rs.16.6 crores representing 6.40% of the annual outlay – an increase from 5.79% from the last financial year.

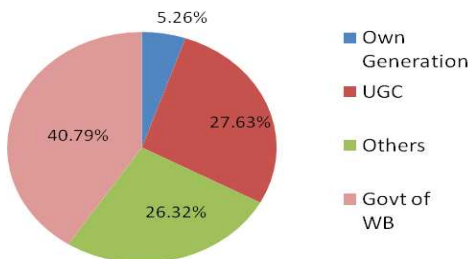
In 2016 alone the University could strengthen its endowment fund by Rs 30,04,243/- (Rupees Thirty Lakhs Four Thousand and Two Hundred Forty-Three only) for scholarships, stipends, awards and lectures. However, without the continuous financial support from the Government of West Bengal the Jadavpur University would not have been able to uphold and enrich its academic profile. On behalf of the University community I put on record my deep gratitude to the state government for this support and we do look forward to receiving the same in the coming days to maintain our onward march to excellence.

Jadavpur University  
Pie-Chart Showing Revenue Receipts 2014-15 [Recurring]



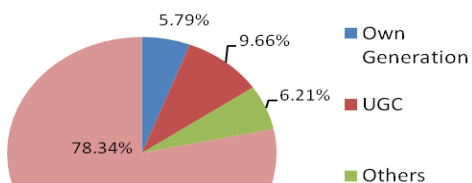
Description	Rs. in Crore	Percentage %
<b>Own Generation</b>	13.23	5.88
<b>UGC</b>	14.9	6.62
<b>Others</b>	6.34	2.82
<b>Govt of WB</b>	190.6	84.68
<b>Total</b>	225.07	100

Pie-Chart Showing Capital Receipts 2014-15 [Non-Recurring]



Description	Rs. in Crore	Percentage %
<b>Own Generation</b>	2.00	5.26
<b>UGC</b>	10.50	27.63
<b>Others</b>	10.00	26.32
<b>Govt of WB</b>	15.50	40.79
<b>Total</b>	38	100

Pie-Chart Showing Total University Receipts 2014-15



Description	TOTAL	Percentage %
<b>Own Generation</b>	<b>15.23</b>	5.79
<b>UGC</b>	<b>25.40</b>	9.66
<b>Others</b>	<b>16.34</b>	6.21
<b>Govt of WB</b>	<b>206.10</b>	78.34
<b>Total</b>	263.07	100.00



**JADAVPUR UNIVERSITY  
KOLKATA-700 032**

**Endowments for Scholarship/Reward/lecture instituted in the year of 2015**

Sl. No.	Name of the Scholarship Name & Address of Donor's	Endowments (Rs.)
1..	Late Debrupa Bal Scholarship	Rs.4,00,000/-
2.	Prof. Debesh Chakraborti Mem Lecture	Rs. 2,50,000/-
3.	Ranjabati Sircar Mem. Lecture	Rs. 3,00,000/-
4.	Late Sandipta Chatterjee Scholarship	Rs. 5,00,000/-
5.	Kshitish Chandra – Shobharani Banerjee Memorial Scholarship	Rs.6,00,000/-
6.	Anadi Mohan Banerjee & Shova Banerjee Memorial Scholarship	Rs. 4,00,000
7.	Late Putul Devi Memorial Scholarship	Rs. 6,00,000
8.	Late Rajeshwar Ghosh & Late Hiranmoyee Ghosh Memorial Scholarship	Rs. 6,00,000
9.	Late R N Bhotika Memorial Reward	Rs. 1,00,00,000
10.	Late Ginia Devi Memorial Reward	Rs. 1,00,00,000
<b>Total: Rupees Two Crore Thirty-six Lakh and Fifty Thousand only</b>		<b>Rs. 2,36,50,000/-</b>

The alumni represent the link between the past, present and the future of any university. We are fortunate in having alumni who have distinguished themselves in different walks of life in India and abroad. With the help of the Registrar I have already initiated a move to mobilise the alumni support for the University's development agenda. During the past one year the Alumni Association based in the campus has provided financial assistance between Rs.40 and Rs.50 lakhs to 600 needy and meritorious students. Discussions have been initiated with the Mumbai, Delhi and Bengaluru Chapters of the Alumni Association to raise fund for observing the 60<sup>th</sup> anniversary of the University in a befitting manner. I am confident that the Vice-Chancellor's Address in the next Convocation will be able to highlight substantial alumni support for the University's onward march to newer heights of excellence. We also propose to felicitate in January or February 2017 one alumnus from each of the Departments and Schools to commemorate our 60<sup>th</sup> year. This should be an important entry point in strengthening the University's link with the alumni.

#### IV CHALLENGES FOR INDIA'S HIGHER EDUCATION

Convocation is surely a day of celebration for all sections of the university community. But it should also be an occasion when the young minds leaving the campus need to be alerted on issues confronting the nation and society. In this context I propose to share my thoughts on some of the challenges for India's higher education, which today stands on the brink of a new take-off point. With about 29.6 million students, 0.8 million teachers, over 700 universities and 36,000 colleges, India's higher education sector has already become second in size to China, so much so that we are now talking about the 'massification' of higher education in our country. But has this phenomenal expansion been in tune with the principle of equity and access? Perhaps not.

The Gross Enrolment Ratio in India has barely reached 21%, when the world average is 32%, and that for countries in transition and the developed world the figures are respectively 57% and 76%. The recently published N.V. Varghese and Garima Malik eds. *India Higher Education Report 2015* (Routledge: London and NY: 2016) reinforces the picture of a limited social base of the Indian higher education system. Within the enrolled students the gender gap is 6% with female disadvantage. Students from the upper classes and social castes, especially from the urban areas, continue to dominate the higher education scene. The system is also plagued by regional disparities. While 33% of the colleges in the country are located in the south India, the ratio varies from 24% to 18%, 15%, 8% and 2% respectively in central, western, northern, eastern and north-east. Settlement clusters with a population varying from 10,000 to 1,00,000 do not have colleges or universities within a reasonable distance. (Centre For Policy Research in Higher Education, National University of Educational Planning and Administration, Background Documents for its Executive Committee Meeting, 26 February 2014, p.4). Even the distribution of students across various faculties is dichotomous, 38% of the enrolled students remaining confined within the portal of liberal arts. What is of greater concern is exceptionally low share of female students in science, commerce, medicine, and technology, their ratio respectively being 28%, 16%, 4.20% and 11%.

The Government of India seeks to enhance the GER to 30% by the end of the 12<sup>th</sup> Five Year Plan. This would require an additional enrolment of 14 million, of which 10.5 million (75%) is proposed to be in the private sector (P. Duraisamy, 'Quantitative expansion of higher education in India' in *India Higher Education Report 2015*, p.86). Already more than 60% of students are enrolled in aided and unaided private institutions. (Ibid) The percentage goes up if we also consider the self-financing courses in government institutions, a phenomenon aptly described as 'privatisation of public institution' (N.V. Verghese, 'Private Higher Education: The Global Surge and Indian Concerns' in IDFC Foundation, *India Infrastructure Report 2012: Private Sector in Education* (Routledge, New Delhi: 2013, pp.145-56). But this phenomenal growth of the private sector is at odds with the principle of equity. The high tuition fee has kept the underprivileged sections outside the ambit of private institutions. According to one study while students from the top 20% of the society in terms of consumption expenditure filled up more than half of the seats in such institutions, only 4% of the slots go to the bottom 20% of the society. The Scheduled Tribe and Scheduled Caste students roughly comprise respectively 4 and 10% of the students in private institutions. The rise of the private sector has thus 'become

a source of inequality' instead of "serving as an instrument of equal opportunity" (Sukhadeo Thorat, 'Higher Education policy in India: emerging issues and approaches' in *India Higher Education Report 2015*, p.33). At a time when in our country "the simple co-efficient of correlation between growth rate in GDP and growth rate in total public expenditure on higher education is very low, that is, 0.18," (Jandhyala B.G. Tilak, 'A decade of ups and downs in public expenditure on higher education in India' in *India Higher Education Report 2015*, p.311) public-private partnership in our higher education is perhaps unavoidable. But we need to oversee that the entry of private capital does not lead to commercialization of higher education, and to ensure this the role of state, as the *World Declaration on Higher Education* (2013) clearly stated, 'remains essential'.

The country's higher education also suffers from an inverse relationship between quantitative growth and qualitative improvement. The 2016-17 *Global Competitiveness Report of the World Economic Forum* has accorded India's Higher Education and Training a low 81<sup>st</sup> rank among the 140 economies surveyed. It is thus not unnatural that 76% of colleges do not satisfy the section 2(f) of the UGC criteria. Again, only about 32% of the accredited universities have been rated 'A' or above and merely 9% of the colleges accredited have been graded 'A' or above. (*National Policy on Education, Report of the Committee for Evolution of the New Education Policy, Government of India, 30/4/16*, p.126). Equally distressing is the *Aspiring Minds National Employability Report of January 2016* which found 80% of the 1,50,000 engineering graduates of 2015 from 650 colleges were not directly employable. Analysts also stress a narrow base of 'research intensity' for university education. (V.V. Krishna and Swapan Kumar Patra, 'Research and innovation in universities in India' in *India Higher Education Report 2015*, p.170). While only 3.2% of the universities account for 50% of our country's research output in science and technology, merely 4.7% of the existing universities won at least five patents for the period 1990 and 2013 (*Ibid.*, p.173). This fact indicates a wide gap between a microscopic minority of research-based universities and the preponderantly teaching universities. The unity of teaching and research, especially in science and technology, is unfortunately lacking in our country too. To a large extent this has been the result of an artificial barrier that exists between the centrally funded science laboratories/institutes and the universities, resulting in the former cornering 95% of the National Gross Expenditure on Research and Development (*Ibid.* p.182.). To make our higher education globally competitive we need to urgently rectify this institutional imbalance, improve the teacher-student ratio which is 24:1 compared to 9.5:1 in Sweden, 13.6:1 in the USA, 16: 8 in China, 17:4 in Canada, 18:1 in the UK and the Russian Federation and 16:3 in Argentina, increase and not decrease research fellowships, address the dichotomies between central and state universities, and implement the Kothari Commission's recommendation of allocating at least 6% of the Gross Domestic Product for education. I welcome the introduction of the National Ranking Framework for Indian universities. But mere ranking is not enough. The Universities at the top of national and international ladder require to be provided with additional incentives and flexibility of governance to enable them to compete internationally. At the same time India's constructive participation in internationalization of higher education is called for.

In recent years considerable stress is being laid on university-industry partnership. This is certainly crucial for transforming inventions to innovations, and The All India Council for

Technical Education is also undertaking new initiatives in this matter. But our captains of industry must be forthcoming in taking the present share of the GDP in Research and Development spending from a little more than 1% to a respectable height to enable India to have its rightful place in international knowledge economy. The stress on utilization of information and communication technology (ICT) in current thinking on higher education is understandable. But ICT can be a complementary to and not a substitute for direct teaching and engaging mode, especially when the ‘overall internet penetration’ in the country was expected to reach in 2015 merely 28% of the one billion plus population, only 9% of which being rural (Sunetra Sen Narayan and Shalini Narayanan eds. *India Connected: Mapping the Impact of New Media* (Sage: New Delhi 2016, p.223). We need to be cautious that the drive for information technology does not create a new social divide – the digital divide. The Draft of the New Education Policy also underlines the importance of Skill Development. But Skill Development training needs to be a dynamic and continuous process so that the development and adaptability of skills become coterminous. We have also to be careful that the trainees of skill development do not become ‘ghettoized’ or ‘marginalized’ in the higher education scenario. Equally challenging for the policy framers will be the need to harmonise the pursuit of science, technology and skill development with the value of studying and researching the humanities, which is crucial to “human well-being of any civilized society”. (Paul Smith, ‘Mobilising the Humanities: The twenty-first-century challenge to the humanities’ in Mary Stiansy and Tim Gore eds. *Going Global: Inclusion, innovation, impact*, Vol.4, (IOE Press: London 2015). At the same time, the other issue the New Education Policy is required to grapple with is how to make our higher education socially inclusive as well as ‘academically discriminating’ (Andre Beteille, *Universities at the Crossroads*, OUP: Delhi, 2016, p.16).

However, the fundamental question that requires to be debated is what should be the goal of our higher education. Are we to be merely concerned with preparing our students to serve the market economy? Or, should we seek to create inclusive and critical citizens, equipped to question distortions in our nation-building process and suggest remedial measures to address them. Sarvepalli Radhakrishnan in his *Education Commission Report* aptly reminded us that “education is a universal right, not a class right”, a right that should make universities sites of creativity and experimentation with ideas. Bertrand Russell in his *Sceptical Essays* aptly recalled:

*Freedom in education has many aspects. There is first of all freedom to learn or not to learn. Then there is freedom as to what to learn. And in later education there is freedom of opinion. (Bertrand Russell, Sceptical Essays, George Allen & Unwin, London, 1960 ed., p.195).*

No university today can insulate itself from the socio-political currents of the time. In fact, a constructive relationship with the society is the hallmark of a university with excellence. But are we sure that even after 70 years of independence have we been able to ‘sanitize’ our students with ‘values and action’ required either for sustaining and strengthening our legacy of tolerance and cultural pluralism or fighting for national unity and a democratic and just society? Perhaps not. In fact, time has come to re-orient the social goal of our higher education so that it enables its practitioners to practice ‘freedom’, empowering them, as Paulo Freire envisages:

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*(to) deal with critically and creatively with reality and discover how to participate in the transformation of their world. Paulo Freire, Pedagogy of the Oppressed (Penguin: Harmondsworth, 1982 ed., p.14)*

Certainly pertinent here is also Swami Vivekananda's warning that anyone who has received education but ignores the deprived is a 'traitor'.

By 2030 India will have the world's youngest population, with one in every four world graduates projected to be products of the Indian higher education system (*India Higher Education Report 2015*, p.9), and this is all the more reason why we need to re-orient our higher education with a proper social goal. With its rich nationalist inheritance and its constant efforts to creatively engage itself with the civil society, Jadavpur University should play an inventive role in this respect.

Let me conclude by extending on behalf of the University heartiest congratulation to my dear students who will be receiving their hard earned and well-deserved degrees, medals and prizes. Many of you will now be treading along hitherto unexplored trails. But I am confident that, fortified with the excellent education you have received from one of the nation's best universities, you will succeed in meeting your future challenges. I do hope you will keep the University's flag flying in whichever profession you join, and wherever you remain. I also implore upon you to fulfil your national and social obligations to the best of your ability. My dear students, your thirst for knowledge should not end with the degrees that you will be receiving today, but you may remind yourselves of Albert Einstein's advice 'not to stop thinking'.

Our Father of the Nation Mahatma Gandhi, too, had also remarked in the same spirit:

*Persistent questioning and healthy inquisitiveness are the first requisites for learning of any kind. (Harijan, 19-1-1947, cited in R.K. Prabhu and U.R. Rao eds. The Mind of Mahatma Gandhi: Encyclopaedia of Gandhi's Thoughts, Navajivan Mudralaya, Ahmedabad, 1966, p.360).*

My dear students, the degree you will be receiving today is like 'a lighted match' and each one of you is 'a fuse'. Hence, you are fully empowered to oppose the commoditization of education and make education an instrument to promote the cause of social justice.

Shri Aurobindo Ghosh, one of the founding fathers of the National Council of Education Bengal which was the precursor of our University, had envisioned our institution to be

*the nucleus of a nation of the new India which is to begin its career after this might and sorrow and trouble, on that day of glory and greatness when India will work for the world. (Cited in Dilip Kumar Sinha, Some Aspects of Inclusive Education (Parichay Prakashan: Kolkata 2014, p.102).*

On this auspicious day, as we meet on the occasion of the 61<sup>st</sup> Convocation of our cherished institution, let us commit ourselves to the realisation of this dream. I am confident that the expertise of the teaching community, the dedication of my students and scholars, the leadership of the Deans of Faculties, the adroitness of my officer colleagues, the devotion of their supporting staff, and the feeling of responsibility among my employees will enable the University to reach

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newer heights of excellences in the coming days. I record my gratitude to all sections of the university community for helping me and guiding me to discharge my duties.

Your Excellency Sir, you may please recall that in my 2015 Address to the Convocation I had stressed my obligation to be the Vice-Chancellor for all sections of the University community. I have been trying to play this role to the best of my ability since I assumed my office under stressful circumstances. But the moment I realise my inability to discharge the coordinating role in university governance, I shall not hesitate to offer to step down. I hope this unfortunate eventuality will not arise, reposing my faith in the collective wisdom of the university community. After all, Gurudev Rabindranath Tagore had exhorted us:

কিন্তু মানুষের প্রতি বিশ্বাস হারানো পাপ, সে বিশ্বাস শেষ পর্যন্ত রক্ষা করব। আশা করব, মহাপ্রলয়ের পরে বৈরাগ্যের মেঘমুক্ত আকাশে ইতিহাসের একটি নির্মল আত্মপ্রকাশ হয়তো আরম্ভ হবে এই পূর্বাচলের সূর্যোদয়ের দিগন্ত থেকে। আর এক দিন অপরাজিত মানুষ নিজের জয়যাত্রার অভিযানে সকল বাধা অতিক্রম করে অগ্রসর হবে তার মহৎ মর্যাদা ফিরে পাবার পথে।

[সভ্যতার সঙ্কট]

Thank you and wishing you all a very happy and peaceful 2017.

24 December, 2016

Suranjan Das.  
Vice-Chancellor.

★★★

SECTION A  
[As on 31.03.2017]

ADMINISTRATIVE PROFILE

***Annual Report 2016-17***



## **GENERAL INFORMATION OF JADAVPUR UNIVERSITY**

Jadavpur University has a long and distinguished heritage. The years 1905-06 are memorable in the history of Bengal and indeed in that of India. The attempt by the Government to partition Bengal led to a countrywide agitation and an intense nationalist movement which, though political at the outset, had important economic and cultural implications. The economic aspect of the movement found expression in the production and use of *swadeshi* goods. The cultural impact was felt in the regeneration of Indian art and music, but most of all in a reaction against the prevalent system of education and the devising of an alternative planned entirely on national lines and directed towards serving the national interest.

It was in this way that the National Council of Education, Bengal, was started in 1906 'to impart education—literary and scientific as well as technical and professional—on national lines and exclusively under national control, not in opposition to, but standing apart from the existing system of primary, secondary and collegiate education, attaching special importance to a knowledge of the country, its literature, history and philosophy, and designed to incorporate the best oriental ideals of life and thought, the best assimilable ideals of the West and inspire students with the genuine love for and desire to serve the country.'

The foundation of the National Council of Education, Bengal, was made possible by the munificence of three generous donors, Raja Subodh Chandra Vasu Mallik, Brojendra Kishore Roy Chowdhury of Gouripur and Maharaja Surya Kanta Acharyya Chowdhury Bahadur of Mymensingh. The first President of the National Council of Education was Sir Rash Behari Ghose, and in its early days, nearly all notable figures of the time were associated with it – some of whom, such as Rabindranath Tagore and Aurobindo Ghosh, later won international recognition.

In 1906, the year of the foundation of the National Council of Education, Bengal, another association was set up known as the Society for the Promotion of Technical Education in Bengal, also under the presidentship of Sir Rash Behari Ghose, with the aim of imparting scientific and technical education to the people of India to further industrial progress. Under the auspices of this Society, the Bengal Technical Institution (later known as the College of Engineering and Technology, Bengal) was started, financed mainly by Sir Taraknath Palit. In 1910, the Society for the Promotion of Technical Education in Bengal was amalgamated with the National Council of Education, Bengal.

The National Council of Education, Bengal, started with courses in Arts, Science and Technology courses, but finding the public demand for the latter more insistent, the Council came to devote almost all its resources to technical education through its College of Engineering and Technology. In 1921, the Council had the good fortune to receive a donation of about 13 lakhs of rupees under the will of Sir Rash Behari Ghose. This bequest enabled the Council in 1924 to construct a number of buildings and workshops on its present site at Jadavpur. Besides the donations and endowments of the founders mentioned above, the Council also received a sum of about 10 lakhs of rupees as donations from various other persons. The present site itself is a gift of the Corporation of Calcutta, which leased out 64 acres of land to the Council at a nominal rent.

At the time of Independence in 1947, the College of Engineering and Technology, Bengal, was virtually functioning as a university. In view of this fact, and in order that the degree of the National Council of Education, Bengal, might receive statutory recognition, the Government of West Bengal with the concurrence of the Government of India enacted the necessary legislation for the establishment of a University at Jadavpur under the name of JADAVPUR UNIVERSITY, which started life on 24 December 1955.

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A new Jadavpur University Act was passed in 1981. It aimed 'to reconstitute the Jadavpur University to enable it to function more efficiently as a University encouraging and providing for instruction, teaching, training and research in various branches of learning and courses of study, promoting advancement and dissemination of knowledge and learning, and extending higher education to meet the growing needs of society and to make the constitution of various authorities or bodies of the University more democratic, consistent with the objectives of the National Council of Education, Bengal and the Dawn Society.'

### **FOUNDERS**

We recall with pride and gratitude the names of the great men who conceived of, established and nurtured the National Council of Education, Bengal, the precursor to the University.

- Tarak Nath Palit (1831-1914)
- Sir Gooroodas Banerji (1844-1918)
- Sir Rash Behari Ghose (1845-1921)
- Basanta Kumar Basu (1850-1935)
- Surya Kanta Acharyya Chowdhury (1851-1908)
- Gopal Chandra Sinha (1852-1926)
- Haradaya Nag (1853-1942)
- Byomkesh Chakravarti (1855-1929)
- Promatho Nath Bose (1855-1935)
- Sir Ashutosh Chaudhury (1860-1924)
- Acharya Prafulla Chandra Roy (1861-1944)
- Acharya Satish Chandra Mukhopadhyay (1865-1948)
- Satyananda Basu (1866-1948)
- Hirendranath Dutta (1868-1942)
- Sakharam Ganesh Deuskar (1869-1912)
- Aurobindo Ghosh (1872-1950)
- Abdul Rasul (1872-1917)
- Brojendra Kishore Roy Chowdhury (1874-1957)
- Raja Subodh Chandra Vasu Mallik (1879-1920)
- Bidhan Chandra Roy (1882-1962)
- Benoy Kumar Sarkar (1887-1949)

### **CHANCELLORS/PRESIDENTS**

- Bidhan Chandra Roy (24.12.1955-1.7.1962)
- Triguna Sen (2.7.1962-24.10.1962)
- Satish Chandra Bhattacharyya (4.6.1967-24.12.1967)
- Arun Kumar Mukherjee (25.12.1967-6.12.1969)
- Triguna Sen (7.12.1969-25.4.1970)
- Sudhir Chandra Chakraborty (10.4.1971-20.12.1971)

### **STATE GOVERNORS AS CHANCELLORS (EX-OFFICIO)**

- Anthony Lancelot Dias (21.12.1971-5.11.1977)
- Sankar Prasad Mitra (10.9.1974-5.10.1974);  
[officiated during absence on leave of Anthony Lancelot Dias]
- Tribhuban Narayan Singh (6.11.1977-11.9.1981)
- Bhairab Dutta Pande (12.9.1981-9.10.1983)

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- Anant Prasad Sharma (10.10.1983-15.8.1984)
- Satish Chandra (Officiating, 16.8.1984-30.9.1984)
- Uma Sankar Dikshit (1.10.1984-12.8.1986)
- Saiyid Nurul Hasan (12.8.1986-1.3.1989)
- T. V. Rajeswar (3.3.1989-6.2.1990)
- Saiyid Nurul Hasan (7.2.1990-13.7.1993)
- K. V. Raghunath Reddy (14.7.1993-23.2.1998)
- A. R. Kidwai (24.2.1998-18.5.1999)
- Shyamal Kumar Sen (Officiating, 22.5.1999-3.12.1999)
- Viren J. Shah (4.12.1999-13.12.2004)
- Gopal Krishna Gandhi (14.12.2004-14.12.2009)
- Devanand Konwar (Officiating, 14.12.2009-24.01.2010)
- M. K. Narayanan (24.01.2010-30.06.2014)
- D.Y. Patil (03.07.2014-17.07.2014)
- Keshari Nath Tripathi (24.07.2014-Continuing)

#### **VICE CHANCELLORS**

- Triguna Sen, (24.12.1955-31.7.1966, Rector/Vice Chancellor)
- Hem Chandra Guha (1.8.1966-31.7.1970)
- Gopal Chandra Sen (Officiating, 1.8.1970-30.12.1970)
- Anil Kumar Majumdar (1.1.1971-15.8.1971)
- Arabinda Nath Basu (16.8.1971-20.11.1979)
- Manindra Mohan Chakrabarty (21.11.1979-31.8.1985)
- Santosh Kumar Sarkar (1.9.1985-28.2.1986)
- Sankar Kumar Sen (1.3.1986-12.4.1991)
- Ajit Kumar Pal (Officiating, 13.4.1991-5.8.1991)
- Pratip Kumar Mukherjee (6.8.1991-31.12.1993)
- Subodh Chandra Som (31.12.1993-29.6.1998)
- Ashok Nath Basu (29.6.1998-29.06.2006)
- Shyamal Kanti Sanyal (30.06.06-14.10.2007)
- Pradip Narayan Ghosh (15.10.07-14.04.2012)
- Abhijit Chakrabarti (15.04.2012-31.07.2012)
- Souvik Bhattacharyya (1.08.2012-27.10.2013)
- Abhijit Chakrabarti (28.10.2013 : for 6 months  
28.04.2014 : for 6 months  
10.10.2014 - 18.01.2015)
- Ashish S. Verma (Officiating, 19.01.2015 - 15.07.2015)
- Suranjan Das (16.07.2015 - Continuing)

#### **REGISTRARS**

- P. C. V. Mallik (1955-30.6.73)
- A. K. Gupta (1.7.73-1.6.88)
- B. Banerjea (26.8.88-31.10.97)
- R. Bandyopadhyay (27.12.97-31.08.2008)
- S. C. Chakraborty (Officiating, 1.09.2008-19.01.2009)
- P. K. Ghosh (20.01.2009-31.08.2017)
- P. P. Lahiri (Officiating, 01.09.2017 - Continuing)

## **THE CAMPUS**

The University stands on 60 acres of land on 188 Raja Subodh Chandra Mallik Road at Jadavpur in South Kolkata (apart from its new 7.6 acre adjacent new campus). It is 8 km by rail from Sealdah Station, 15 km by road from Howrah Station, 25 km by road from Netaji Subhas Chandra Bose International Airport, and 3 km by road from the Metro Railway Terminus at Tollygunge. The campus is close to Jadavpur Railway Station, and is approachable by public transport from all parts of Kolkata.

Various other research and academic institutions have grown up around the University, creating a belt of scientific and academic activity. Among these centres are the Indian Institute of Chemical Biology, the Central Glass and Ceramic Research Institute (both CSIR laboratories), the Indian Association for the Cultivation of Science, the academic complex of the National Council of Education, Bengal, the Regional Institute of Printing Technology, the Acharya P. C. Ray Polytechnic, and other organizations of repute. The campus itself houses the Department of Electronics Accredited Computer Courses (DOEACC) Centre and the headquarters of the Indian Institute of Chemical Engineers.

## **SECOND CAMPUS**

The rapid growth of the University created a demand for more space. The Government of West Bengal granted the University 21.3 acres of land at Block IB, Plot No.8, Bidhan Nagar (Salt Lake City), Kolkata 700 098, 13 km away from the main campus at Jadavpur. Here, the University plans to promote an area of 5 lakh sq ft in the form of a building complex to accommodate various departments, as well as an administrative office, seminar halls, staff quarters etc. A library, hostel and computer centre have already come up at the site. At present, the following departments function from the Second Campus: Construction Engineering, Information Technology, Instrumentation Engineering, Power Engineering and Printing Engineering. The campus has a well-equipped gymnasium and a cricket ground that hosts state-level tournaments. The Eastern Regional Office of the UGC and the Inter-University Consortium for Atomic Energy are also located on this campus.

## **WEST ANNEX CAMPUS**

National Instruments Limited (NIL) was a Central Public Sector Enterprise under the Ministry of Heavy Industries and Public Enterprises, Govt. of India. NIL was engaged in the field of sophisticated Optical, Opto-Mechanical and Opto-Electronics Instruments manufacturing and maintenance and in the year 1992 it was referred to BIFR (Board of Industrial and Financial Reconstruction) under section 15(1) of the Sick Industrial Companies Act, 1985 as a sick industry.

The Jadavpur University and the University of Calcutta expressed interest in taking over the assets, liabilities and manpower of NIL for further expansion of their academic activities. Government of West Bengal decided in favour of Jadavpur University in view of close proximity of its main campus to NIL.

A meeting of all the stakeholders of the company, the representatives of the Govt. of India, Govt. of West Bengal, Regional Provident Fund Commissioner, Jadavpur University and workers/officers Union/ Association was held on 24.06.2005 to consider the proposal of taking over assets, liabilities and manpower of NIL.

BIFR, based on the draft scheme submitted by the operating agent, the State Bank of India, and an affidavit submitted by the Jadavpur University, prepared a scheme for revival of the sick company, the NIL, which included transfer of assets and liabilities of NIL along with transfer of existing employees with effect from 01.04.2007 in favour of Jadavpur University for utilization of the company's infrastructure for R&D purpose of the JU and the Board approved the said scheme on 04.08.2008.

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Accordingly, NIL was transferred to Jadavpur University by an agreement made between NIL and the JU on the basis of the direction of BIFR, G.O.I and Govt. of West Bengal on and from 01.01.2009.

The erstwhile NIL campus is now the third campus of the JU and is known as West Annex Campus of the University.

Jadavpur University with its strong research culture and experienced faculty has been associated with DRDO since 1970s. Notable contributions are in Control, Guidance, Fault Tolerance of Missile Systems and Information Security. A Multi-Institute Collaborative Directed Basic Research facility will be created as “Jagadish Chandra Bose Centre for Advanced Technology : A DRDO-JU Initiative” (JCBCAT) with generous funding from DRDO. This joint venture is envisioned to emerge as a centre of excellence in conducting scientific and applied research in directed areas of advanced technology for defence. The Centre will be located in part of the West Annex Campus (erstwhile National Instruments Ltd. Campus) of the University. The JCBCAT will involve all the universities, IITs and NITs and research institutes of the region as well as ISI and IISER as participating institutions.

The University has many plans for expansion in the new campus. For example, setting up a Business Incubator, an Institute of Management Studies, Tagore Research Centre etc. Classes of few of the new courses are already going on in the campus and few other new plans are still in the pipeline.

### **JURISDICTION**

The local limits of jurisdiction of the University extend to a radius of three and a half kilometres from the place where the University has its administrative nucleus.

Further, statutory provisions have been made so that any college or institution situated beyond the statutory area may also apply to the University for affiliation or recognition of any course or courses of study leading to a degree, diploma or certificate. The University may, subject to such conditions and restrictions as it may, with the approval of the State Government, think fit to impose, affiliate to itself, or recognize the course or courses of study conducted by, such college or institution, and admit the latter to all privileges of the University.

The colleges and institutions currently affiliated to the University are: Institute of Business Management under the control of National Council of Education, Bengal, and J.D. Birla Institute of Home Science, Kolkata. Further, the following institutions have been recognized as those at which research may be conducted leading to the Ph.D. degree of the University: Saha Institute of Nuclear Physics; School of Tropical Medicine, Kolkata; VECC (Bhabha Atomic Research Centre), Kolkata; Indian Association for Cultivation of Science, Kolkata; Indian Institute of Chemical Biology; Central Glass and Ceramic Research Institute; Bose Institute; Indian Statistical Institute, Kolkata; Jute Technological Research Laboratory; Chittaranjan National Cancer Research Centre; S.N. Bose National Centre for Basic Sciences; All India Institute of Hygiene and Public Health.

### **EMBLEM**

The University adopted for its seal and emblem a design of three lamps encircled in lotus petals, executed under the direction of Nandalal Bose (1883-1966). The lamp represents knowledge, while the three flames are emblematic of intellectual training, integration of emotion, and imagination and spiritual development. The petals in the periphery represent philosophy, the fine arts and culture.

### **FEATURES**

Jadavpur University is primarily a unitary teaching and research university, grouped into the three facilities of Arts, Science, and Engineering and Technology. It also has statutory authority to affiliate other institutions. All authority is vested in one body, the Court of the University which has four main advisory Councils: the Executive Council and the three Faculty Councils for Postgraduate



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and Undergraduate Studies. Advisory Committees under the authority of the Court include the Boards of Studies, the Finance Committee, the Working Committee, the Planning and Development Committee, and such other authorities as may be established under the statutes.

The Court functions on broad-based democratic principles and norms. It comprises representatives of University teachers, officers, non-teaching staff, students, research scholars, registered graduates and affiliated colleges. It also has one member each from the registered trade unions, primary school teachers' association and secondary school teachers' association within the territorial jurisdiction of the University. Besides these, the Court has *ex-officio* members from the senior ranks of Central and State Government bodies and institutions; three representatives of donors; and four elected members from the National Council of Education, Bengal, in addition to the President of the Council.

The University has three Faculties: Arts, Science, and Engineering and Technology with 35 departments under them: 12 in Arts, 17 in Engineering and Technology, and 6 in Science. Some of these departments have contributed to the development of new disciplines in the country, such as Chemical Engineering, Comparative Literature, International Relations, Film Studies and Production Engineering. The University has also evolved an interdisciplinary and interfaculty system of Schools devoted primarily to research but in some instances offering taught courses; as well as a number of Centres for research, primarily within a given discipline but branching outwards towards interdisciplinary work.

In 2001, the University Grants Commission declared Jadavpur University as one of five leading 'universities with potential for excellence'. An exceptional number of departments have been identified by the UGC as Departments of Special Assistance and Centres of Advanced Studies, or for its COSIST programme. Recently, the Department of Science and Technology, Government of India, has identified a number of departments for its FIST programme. Besides, a number of projects are granted every year by the CSIR, the MHRD, the DST, the DBT, the DOD, the ICMR, the ICSSR and other funding agencies. An index of such research activities is the increasing participation by teachers of the University in national and international conferences, not to mention the increasing number of conferences hosted every year at Jadavpur.

These awards and honours are at least in part the result of some notable features of the internal organization of the University:

- (i) a close relationship between teacher and taught, with a joint Student-Teacher Committee in each department;
- (ii) close links with *ex-students*;
- (iii) lively extra-curricular activities;
- (iv) a tutorial system.

This unitary University is in spirit and intention, though not in actual fact, a residential institution, and as such lays emphasis on the development of corporate life among the students. Students are expected to participate in co-curricular activities to realize their potentials, enrich their personality, and further the ends of corporate life.

What we want here is not merely to give you a little information, not merely to open to you careers for earning a livelihood, but to build up sons for the motherland to work and to suffer for her. That is why we started this College and that is the work to which I want you to devote yourselves in future. What has been insufficiently and imperfectly begun by us, it is for you to complete and lead to perfection.

[From the speech by Aurobindo Ghosh delivered on 22 August, 1907 before the students and teachers of Bengal National College.]

## **VISION AND MISSION**

### **VISION**

The National Council of Education, Bengal, was established in 1906 in the wake of the nationalist movement. It was led by intellectuals, statesmen and the middle-class intelligentsia, and its aim was to cultivate the best of global learning and technology in order to build a self-reliant industrial base for India. Bengal Technical Institute was among the educational institutions founded by NCE, Bengal. Its mission was to impart training to Indian students in the appropriate technology so that the country could produce indigenous consumable materials. This Institute, later renamed College of Engineering and Technology, was in turn converted to Jadavpur University in 1955. The founders believed that the Technology Faculty could not sustain itself without active Faculties of the Basic Sciences and the Humanities. While playing a vital role in technical education in the country, the University may be said to rest on three pillars-Technology, Science and Arts. Jadavpur University is at present an internationally recognised premier university of the country. It is an urban university with a global perspective and is dedicated to creating leaders who will fashion a more humane and just world. Following in the footsteps of its predecessor, the University not only engages itself in teaching and research of international quality, but also provides societal services for the benefit of rural and urban populations. The programmes are directed towards achieving excellence in education and extending the benefits of improved technology to the society as a whole. The faculty members are encouraged to add value to the courses so that students can secure employment or attempt entrepreneurship. Extension programmes and several other courses provide opportunities for the drop-outs at different levels to continue their education. The objective is that they should be able to earn a living and derive the impersonal pleasure of learning at the same time. The University also contributes in evolving modes of digital distance education as part of the National Mission on Education.

### **MISSION**

- The University wishes to grow further as a diverse and socially responsible learning community, providing a high quality of scholarship and equal opportunity for all. The University's core values include a commitment to:
- The highest standards of excellence in teaching, research, creative expression and service to the community;
- Advanced learning as a humanising social practice rather than as a competitive exercise;
- Regarding the production and dissemination of knowledge as inseparable goals;
- Upholding the principle that the culture of reason and learning is indivisible from a concern for the world beyond the campus;
- Maintaining principles of democratic governance and intellectual and institutional freedom;
- Abiding by principles that do not discriminate on the basis of religion, race, caste, gender and economic status.



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**COURSES OFFERED**

**A. FACULTY OF ARTS**

- 1 Master of Philosophy in Bengali
  - 2 Master of Philosophy in Cognitive Science
  - 3 Master of Philosophy in Comparative Literature
  - 4 Master of Philosophy in Economics
  - 5 Master of Philosophy in English
  - 6 Master of Philosophy in History
  - 7 Master of Philosophy in International Relations
  - 9 Master of Philosophy in Sanskrit
  - 10 Master of Philosophy in Sociology
  - 11 Master of Philosophy in Women's Studies
  - 12 Master of Philosophy in Linguistics
  - 13 Master of Philosophy in Education
  - 14 Master of Philosophy in Philosophy
  - 15 Master of Philosophy in Oceanography & Coastal Management
- 
- 1 Master of Arts in Bengali
  - 2 Master of Arts in Comparative Literature
  - 3 Master of Arts in Economics
  - 4 Master of Arts in English
  - 5 Master of Arts in Film Studies
  - 6 Master of Arts in History
  - 7 Master of Arts in Political Science with International Relations
  - 8 Master of Arts in Philosophy
  - 9 Master of Arts in Sanskrit
  - 10 Master of Arts in Sociology
  - 11 Master of Arts in Education
  - 12 Master of Library & Information Science
  - 13 Master of Library & Information Science in Digital Library
  - 14 Master of Physical Education
- 
- 1 Bachelor of Arts in Bengali
  - 2 Bachelor of Arts in Comparative Literature
  - 3 Bachelor of Arts in Economics
  - 4 Bachelor of Arts in English

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- 5 Bachelor of Arts in History
- 6 Bachelor of Arts in Philosophy
- 7 Bachelor of Arts in Political Science
- 8 Bachelor of Arts in Sanskrit
- 9 Bachelor of Library & Information Science
- 10 Bachelor of Physical Education
- 11 Bachelor of Commerce (J.D. Birla Institute)
- 12 Bachelor of Education
- 13 Bachelor of Arts in Sociology

### **OTHER COURSES (OFFERED BY THE DEPARTMENTS/CENTRES/SCHOOLS)**

- 1 Department of International Relations : One year Diploma Course in Human Rights and Duties Education
- 2 Department of Sociology :
  - a) First degree-level course in Applied Sociology,
  - b) PG Diploma course in Society, Religion and Social Work.
- 3 Bhasacharya Suniti Kumar Chatterji Centre for Language Studies : One year certificate course on Voice Training and Speech Production.
- 4 Centre for Counselling Services and Studies in Self- Development :
  - a) UGC - Sponsored 3 year Career Oriented Certificate course on Stress Management,
  - b) 2 year PG Diploma course in Counselling and Stress Management
- 5 Centre for Translation of Indian Literatures (CENTIL) :
  - a) One year Certificate course in Translation as a Skill.
- 6 Centre for Yoga :
  - a) Post-graduate Diploma in Yoga Therapy
- 7 School of Languages and Linguistics :  
PG-Diploma course on Introduction to Linguistics
- 8 ICPR Centre for Buddhist Studies  
Certificate course in Buddhist Studies recommended by ICPR

## **B. FACULTY OF ENGG. & TECH.**

### **POST-GRADUATE COURSES**

- 1 Master of Computer Sc. & Engg.
- 2 Master of Chemical Engg.
- 3 Master of Architecture
- 4 Master of Production Engg.
- 5 Master of Civil Engg.

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- 6 Master of Power Engg.
- 7 Master of Distributed & Mobile Computing
- 8 Master of Control System Engg.
- 9 Master of Technology in Food Tech. & Biochemical Engg
- 10 Master of Automobile Engg.
- 11 Master of Technology in Nano Sc. & Tech.
- 12 Master of Technology in Instrumentation & Electronics Engg.
- 13 Master of Technology in Computer Tech. (6-Semester - Evening)
- 14 Master of Mechanical Engg.
- 15 Master of Electrical Engg.
- 16 Master of Metallurgical Engg.
- 17 Master of Water Resources & Hydraulic Engg. (4-Semester - Day)
- 18 Master of Water Resources & Hydraulic Engg.(6-Semester - Evening)
- 19 Master of Technology in Intelligent Automation and Robotics (6-Semester – Evening)
- 20 PG Diploma in Risk Management & Financial Engg
- 21 Master of Technology in I.T. (Courseware Engg.)
- 22 Master of Technology in Material Engg.
- 23 Master of Electronics & Tele. Comm. Engg.
- 24 Master of Biomedical Engg.
- 25 Master of Technology in VLSI Design & Micro Electronics Tech. (6-Semester - Evening)
- 26 Master of Multimedia Development
- 27 Master of Energy Sc. & Tech.
- 28 Master of Technology in Software Engg.
- 29 Master of Nuclear Engg.
- 30 Master of Illumination Engg.(4-Semester)
- 31 Master of Bioprocess Engineering
- 32 Master of Environmental Biotechnology
- 33 Master of Laser Technology
- 34 Master of Illumination Tech. & Design. (6-Semester – Evening)
- 35 Master of Printing Engg. & Graphic Communication.
- 36 Master of Construction Engg. (6-Semester - Evening)[Structural Repair & Retrofit Engg.]
- 37 Master of Pharmacy
- 38 Master of Clinical Pharmacy & Pharmacy Practice
- 39 Master of Computer Application
- 40 Master of Business Administration
- 41 Master of Engineering in Industrial Metallurgy (two Years)

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### **UNDERGRADUATE COURSES**

- 1 Bachelor of Architecture
- 2 Bachelor of Chemical Engg.
- 3 Bachelor of Civil Engg.
- 4 Bachelor of Computer Sc. & Engg.
- 5 Bachelor of Construction Engg.
- 6 Bachelor of Electrical Engg.
- 7 Bachelor of Electronics & Telecommunication Engg.
- 8 Bachelor of Food Tech. & Biochemical Engg,
- 9 Bachelor of Information Technology
- 10 Bachelor of Instrumentation & Electronics Engg.
- 11 Bachelor of Mechanical Engg.
- 12 Bachelor of Metallurgical Engg.
- 13 Bachelor of Pharmacy
- 14 Bachelor of Power Engg.
- 15 Bachelor of Printing Engg.
- 16 Bachelor of Production Engg..
- 17 Bachelor of Technology (Instrumentation & Electronics Engg.)
- 18 Bachelor of Business Administration (J.D. Birla Institution)
- 19 Bachelor of Education (Special Edn.) with Specialisation in Locomotor Impairment and Neuro-Muscular Disorder.
- 20 Bachelor of Education (Special Edn.) with Specialisation in Mental Retardation.
- 21 5-Year Evening Engg. Degree Courses:
  - a) Bachelor of Civil Engg.
  - b) Bachelor of Electrical Engg.
  - c) Bachelor of Mechanical Engg.

### **OTHER COURSES (OFFERED BY THE CENTRES)**

- 1 Centre for Computer Aided Design :
  - a) One year P.G. Diploma in applied GIS and Remote Sensing,
  - b) One year Diploma in Multimedia and Animation,
  - c) Auto CAD with AutoLisp,
  - d) Structural Analysis and Design,
  - e) Advanced 3D Modelling.
- 2 Centre for Welding Technology :
  - a) Certificate course in Welding Inspection and Testing,
  - b) Training course for Welders (MMAW / TIG / Pipe Welding) / Supervisors,
  - c) Six Module-based Post -Diploma course for Engineers.

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**C. FACULTY OF SCIENCE**

**POST-GRADUATE COURSES**

- 1 Master of Philosophy in Oceanography and Coastal Management (See under Faculty of ISLM)
- 2 Master of Science in Applied Geology
- 3 Master of Science in Biotechnology
- 4 Master of Science in Chemistry (Day & Evening) 2-year Day Course/3 year Evening Course
- 5 Master of Science in Electronics Sc.
- 6 Master of Science in Composite Home Sc. (Human Development, J.D. Birla Inst.)
- 7 Master of Science in Home Sc. (Resource Management, J.D. Birla Inst.)
- 8 Master of Science in Home Sc. (Textiles and Clothing, J.D. Birla Inst.)
- 9 Master of Science in Home Sc. (Food and Nutrition, J.D. Birla Inst.)
- 10 Master of Science in Mathematics (Day & Evening) 2-year Day Course/3 year Evening Course
- 11 Master of Science in Physics (Day & Evening) 2-year Day Course/3 year Evening Course
- 12 Master of Science in Instrumentation Science

**UNDERGRADUATE COURSES**

- 1 Bachelor of Science in Chemistry
- 2 Bachelor of Science in Geological Sciences
- 3 Bachelor of Science in Geography
- 4 Bachelor of Science in Home Sc. (J.D. Birla Inst.)
- 5 Bachelor of Science in Food Science & Nutrition Management (J.D. Birla Inst.)
- 6 Bachelor of Science in Textile Science, Clothing & Fashion Studies (J.D. Birla Inst.)
- 7 Bachelor of Science in Interior Designing (J.D. Birla Inst.)
- 8 Bachelor of Science in Human Development (J.D. Birla Inst.)
- 9 Bachelor of Science in Mathematics
- 10 Bachelor of Science in Physics

**OTHER COURSES (OFFERED BY THE DEPARTMENTS/CENTRES)**

- 1 Department of Physics : Post-M.Sc. Diploma in Medical Physics

**COURSES (OFFERED BY INTERDISCIPLINARY SCHOOLS)**

- 1 School of Cultural Texts and Records :
  - a) Post-Graduate Certificate course in Editing and Publishing.
  - b) PG Diploma course in Digital Humanities and Cultural Informatics
- 2 School of Languages :
  - a) M.Phil and M.A. in Linguistics
  - b) Certificate courses in Bengali, French, German, Italian, Korean, Portuguese, Spanish, Hindi, Functional Communicative English, Japanese
  - c) Diploma courses in Bengali, French, German, Italian, Portuguese, Spanish, Hindi, Japanese, Sanskrit.
  - d) Advanced Diploma Courses in Bengali, Sanskrit, Portuguese, French, Japanese
  - e) Certificate Course in Linguistic

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- 3 School of Women's Studies :
  - a) M. Phil in Women's Studies,
- 4 School of Bioscience and Engg. : Master of Engineering in Biomedical Engg.
- 5 School of Education Technology :
  - a) Master in Multimedia Development,
  - b) M. Tech. in IT (Courseware Engg.)
- 6 Multimedia Digital Distance Education Mode
  - a) PG Diploma in Multimedia and Web Technology,
  - b) PG Diploma in Risk Management and Financial Engg.
- 7 Distance Mode
  - a) M.A. in Environment and Development Distance Mode
- 8 School of Energy Studies :
  - a) M. Tech. in Energy Science and Technology,
- 9 School of Material Science and Nanotechnology :
  - a) M.Tech. in Nanoscience and Technology.
- 10 School of Mobile Computing and Communication :
  - a) M. Tech in Distributed and Mobile Computing.
- 11 School of Nuclear Studies and Application :
  - a) Master of Engineering in Nuclear Engineering.
- 12 School of Water Resources Engg. :
  - a) Master of Engineering in Water Resources and Hydraulic Engg.
- 13 School of Environmental Studies :
  - a) M.Tech in Environmental Bio-Technology
  - b) Post-graduate Diploma in Environmental Management and Regulations
- 14 School of Oceanographic Studies :
  - a) M. Phil in Oceanography and Coastal Management,
  - b) PG Diploma in Remote Sensing,

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### **UNIVERSITY OFFICERS**

[As on 01.11.2017]

1. **Professor Suranjan Das** : Vice-Chancellor (16.07.2015 - Continuing)
2. Dr. Ashish S. Verma : Pro Vice-Chancellor (15.12.2014 - Continuing)
3. Dr. Pradip Kr. Ghosh : Pro Vice-Chancellor (19.08.2017 - Continuing)
4. Professor Subhasis Biswas : Dean, Faculty of Arts
5. Professor Chiranjib Bhattacharjee : Dean, Faculty of Engineering and Technology
6. Professor Subrata Nath Koner : Dean, Faculty of Science
7. Professor Samita Sen : Dean, Faculty of Interdisciplinary Studies,  
Law & Management
8. Dr. Partha Pratim Lahiri : Registrar (Officiating, w.e.f. 01.09.2017)
9. Dr. Subir Chandra Chakraborty : Joint Registrar (Salt Lake Campus)
10. Dr. Partha Pratim Lahiri : Joint Registrar
11. Dr. Sanjay Gopal Sarkar : Joint Registrar
12. Dr. Kaniska Sarkar : Asst. Registrar (Main Campus)
13. Dr. Ujjwal Kumar Mondal : Asst. Registrar (Salt Lake Campus)
14. Dr. Satyaki Bhattacharyya : Controller of Examinations
15. Ms. Chandrani Dam : Asst. Controller of Examinations
16. Vacant : Asst. Controller of Examinations (Contractual)
17. Sri Gour Krishna Pattanayak : Finance Officer
18. Sri Debasish Pal : Deputy Finance Officer (On Lien)
19. : Accounts Officer
20. Sri Shiladitya Chatterjee : Accounts Officer
21. : Accounts Officer (Contractual)
22. Sri Dipanjan Raychaudhuri : Audit Officer
23. Dr. Shrabana Ghosh : Chief Librarian (Officiating)
24. Dr. Shrabana Ghosh : Librarian
26. : Associate Librarian
27. Sri Samit Pahari : Information Scientist
28. Dr. Rajat Ray : Dean of Students
29. Dr. Bappa Mullick : Director of Youth Welfare
30. Sri Siddhartha Bhattacharyya : Officer of Placement and Training
31. Dr. Debabrata Saha : Development Officer
32. Prof. Saroj Mondal : Chief University Engineer (Look after)
33. Sri Dinabandhu Tripathi : Asst. Engineer (Civil)
34. Sri Badal Sarkar : Asst. Engineer (Electrical)
35. Sri Indrajit Banerjee : Secretary, Faculty of Arts
36. Dr. Bholanath Karmakar : Principal Secretary, Faculty of Engineering and Technology
37. Dr. Atiskumar Chattopadhyay : Secretary, Faculty of Science
38. Sri Siddhartha Bhattacharyya : Secretary, Faculty of Interdisciplinary Studies, Law  
& Management (Additional Charge)
39. Dr. Kamal Dutta : Chief Medical Superintendent
40. Dr. Aparup Konar : Director of Physical Instruction
41. Dr. Nandini De : Sr. Documentation Officer



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- |                            |  |
|----------------------------|--|
| 42. Ms. Sarbani Goswami    | : Sr. Research Officer                           |
| 43. Ms Samita Bhattacharya | : Officer on Special Duty (Placement & Training) |
| 44. Dr. Ashok Nath Mandal  | : Micro -Analyst                                 |
| 45. Sri Pranab Roy         | : Scientific Officer                             |
| 46. Sri Abhijit Sen        | : Publication Officer                            |

**MEMBERS OF THE COURT  
( As on 1st November, 2017 )**

It is notified information of all concerned that in terms of the **West Bengal University Laws (Amendment) Act, 2011** , the **University Court** is formed with following members .

1. **Chancellor**  
**Sri Keshari Nath Tripathi**  
Hon'ble Governor of West Bengal  
&  
Chancellor, Jadavpur University  
Raj Bhavan,  
Kolkata-700 062.
2. **Vice-Chancellor**  
**Professor Suranjan Das**  
Vice-Chancellor  
Jadavpur University  
Kolkata-700 032.
3. **Pro-Vice-Chancellor**  
**Dr. Ashish S. Verma**  
Pro-Vice-Chancellor  
Jadavpur University  
Kolkata-700 032.
- 3(a). **Pro-Vice-Chancellor**  
Dr. Pradip Kumar Ghosh,  
The Pro-Vice-Chancellor  
Jadavpur University  
Kolkata-700 032
4. **Dean, Faculty of Arts**  
**Prof. Subhasis Biswas**  
Jadavpur University  
Kolkata-700 032.
5. **Dean, Faculty of Engg. & Technology**  
**Prof. Chiranjib Bhattacharjee,**  
Jadavpur University  
Kolkata-700 032.

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6. **Dean, Faculty of Science**  
**Prof. Subrata Nath Koner**  
Jadavpur University  
Kolkata-700 032.
7. **Dean, Faculty of Interdisciplinary Studies, Law & Mangement**  
**Prof. Samita Sen**  
Jadavpur University  
Kolkata-700 032.
8. **Smt. Madhumita Roy, IAS**  
Secretary,  
Higher Education Department  
Government of West Bengal  
CS Branch  
Bikash Bhavan  
Salt Lake City  
Kolkata-700 091.
9. **Sri Samir Kumar Ghosh**  
Finance Department, Audit Branch  
Government of West Bengal  
Bikash Bhavan  
Salt Lake City  
Kolkata-700 091.
10. **Nominee of Chairman**  
**Sri Manojit Mandal**  
West Bengal State Council of Higher Education  
147-A, Rash Behari Avenue  
Kolkata-700 029
11. **President**  
West Bengal Council of Higher Secondary Education  
9/2, Block – DJ, Sector-II  
Salt Lake, Kolkata-700 091.
12. **Md. Fazle Rabbi**  
**President**  
West Bengal Board of Madrasa Education  
'Begum Rokeya Bhavan'  
19, Haji Md. Mohsin Square  
Kolkata-700 016.
13. **President**  
West Bengal Board of Secondary Education  
DJ-8, Sector-III  
Nivedita Bhawan  
Salt Lake, Kolkata.

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14. **Prof. Sabyasachi Basu Ray Chaudhury**  
**Vice-chancellor,**  
Rabindra Bharati University  
Kolkata-700 050
15. **Prof. A. K. Ray, Director**  
Indian Institute of Engineering Science & Technology, Shibpur  
P.O. Botanical Garden, Shibpur, Howrah, West Bengal, India - 711103
16. **Prof. Anil Sukla**  
**Deputy Secretary**  
NCTE, HQS, Wing II Hans Bhawan  
1, Bahadur Shah Zafar Marg  
New Delhi-110002

**FACULTY COUNCIL OF ENGINEERING & TECHNOLOGY**

**REPRESENTATIVES OF THE DEPARTMENTS**

17. **Adult Continuing Education & Extension**  
**Sri Santwan Chattopadhyay [Head]**  
Jadavpur University  
Kolkata-700 032.
18. **Architecture**  
**Prof. Sanjib Nag [Head]**  
Jadavpur University  
Kolkata-700 032.
19. **Chemical Engg.**  
**Prof. Kajari Kargupta [Head]**  
Jadavpur University  
Kolkata-700 032.
20. **Civil Engg.**  
**Prof. Arup Guha Niyogi [Head]**  
Jadavpur University  
Kolkata-700 032.
21. **Computer Sc. & Engg.**  
**Prof. Ujjwal Maulik [Head]**  
Jadavpur University  
Kolkata-700 032.
22. **Construction Engg.**  
**Prof. Kaushik Bandyopadhyay [Head]**  
Jadavpur University  
Kolkata-700 032.
23. **Electrical Engg.**  
**Prof. Subrata Paul [Head]**  
Jadavpur University  
Kolkata-700 032.

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24. **Electronics & Telecommunication Engg.**  
**Prof. P. Venkateswaran [Head]**  
Jadavpur University  
Kolkata-700 032.
25. **Food Tech. & Bio-Chemical Engg.**  
**Prof. Uma Ghosh [Head]**  
Jadavpur University  
Kolkata-700 032.
26. **Information Technology**  
**Dr. Bibhas Chandra Dhara [Head]**  
Jadavpur University  
Kolkata-700 032.
27. **Instrumentation & Electronics Engg.**  
**Prof. Rajanikanta Mudi [Head]**  
Jadavpur University  
Kolkata-700 032.
28. **Mechanical Engg.**  
**Prof. Dipankar Sanyal [Head]**  
Jadavpur University  
Kolkata-700 032.
29. **Metallurgical & Material Engg.**  
**Prof. Pravash Chandra Chakraborti [Head]**  
Jadavpur University  
Kolkata-700 032.
30. **Pharmaceutical Technology**  
**Prof. Biswajit Mukherjee [Head]**  
Jadavpur University  
Kolkata-700 032.
31. **Power Engg.**  
**Prof. Amitava Datta [Head]**  
Jadavpur University  
Kolkata-700 032.
32. **Printing Engg.**  
**Prof. Kanai Chandra Paul [Head]**  
Jadavpur University  
Kolkata-700 032.
33. **Production Engg.**  
**Prof. Arunanshu Sekhar Kuar [Head]**  
Jadavpur University  
Kolkata-700 032.

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**FACULTY COUNCIL OF ARTS**  
**REPERESNTATIVES OF THE DEPARTMENTS**

34. **Bengali**  
**Prof. Sekhar Kumar Samaddar [Head]**  
Jadavpur University  
Kolkata-700 032.
35. **Comparative Literature**  
**Prof. Samantak Das [Head]**  
Jadavpur University  
Kolkata-700 032.
36. **Economics**  
**Prof. Arpita Ghose (Dhar) [Head]**  
Jadavpur University  
Kolkata-700 032.
37. **Education**  
**Dr. Bishnupada Nanda [Head]**  
Jadavpur University  
Kolkata-700 032.
38. **English**  
**Prof. Abhijit Gupta [Head]**  
Jadavpur University  
Kolkata-700 032.
39. **Film Studies**  
**Prof. Abhijit Roy [Head]**  
Jadavpur University  
Kolkata-700 032.
40. **History**  
**Prof. Rup Kumar Barman [Head]**  
Jadavpur University  
Kolkata-700 032.
41. **International Relations**  
**Dr. Kakoli Sengupta [Head]**  
Jadavpur University  
Kolkata-700 032.
42. **Library & Information Science**  
**Prof. Udayan Bhattacharya [Head]**  
Jadavpur University  
Kolkata-700 032.
43. **Philosophy**  
**Prof. Atashee Chatterjee Sinha [Head]**  
Jadavpur University  
Kolkata-700 032.

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44. **Physical Education**  
**Dr. Gopal Chandra Saha [Head]**  
Jadavpur University  
Kolkata-700 032.
45. **Sanskrit**  
**Prof. Tapan Sankar Bhattacharyya [Head]**  
Jadavpur University  
Kolkata-700 032.
46. **Sociology**  
**Prof. Dalia Chakrabarti [Head]**  
Jadavpur University  
Kolkata-700 032.

**FACULTY COUNCIL OF SCIENCE**  
**REPRESENTATIVES OF THE DEPARTMENTS**

47. **Chemistry**  
**Prof. Kalyan Kumar Das [Head]**  
Jadavpur University  
Kolkata-700 032.
48. **Geography**  
**Dr. Lakshmi Sivaramakrishnan [Head]**  
Jadavpur University  
Kolkata-700 032.
49. **Geological Sciences**  
**Prof. Subrata Karmakar [Head]**  
Jadavpur University  
Kolkata-700 032.
50. **Instrumentation Science**  
**Prof. Anup Kumar Ghosh [Head]**  
Jadavpur University  
Kolkata-700 032.
51. **Life Science & Bio-Tech.**  
**Prof. Parimal Karmakar [Head]**  
Jadavpur University  
Kolkata-700 032.
52. **Mathematics**  
**Prof. Ashish Kumar Sarkar [Head]**  
Jadavpur University  
Kolkata-700 032.
53. **Physics**  
**Prof. Argha Deb [Head]**  
Jadavpur University  
Kolkata-700 032.

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54. **Vacant**  
Five teachers elected by the teachers of the Departments under the Faculty Council for Post Graduate and Under Graduate Studies in Engineering and Technology from amongst themselves as may be prescribed by Statutes
55. **Vacant**  
Five teachers elected by the teachers of the Departments under the Faculty Council for Post Graduate and Under Graduate Studies in Arts from amongst themselves as may be prescribed by Statutes
56. **Vacant**  
Five teachers elected by the teachers of the Departments under the Faculty Council for Post Graduate and Under Graduate Studies in Science from amongst themselves as may be prescribed by Statutes
57. **Vacant**  
One representative of the Officers of the University.
58. **Vacant**  
One representative of Non-teaching Employees
59. **Representative: National Council of Education, Bengal**  
**Sri Himendu Biswas**  
National Council of Education, Bengal  
Jadavpur University  
Kolkata-700 032.

**Nominated Members**

60. **Prof. Bimal Roy, Ex- Director**  
Indian Statistical Institute,  
201, B.T. Road,  
Kolkata-700 108.
61. **Prof. Bikash Sinha, Ex- Director**  
Saha Institute of Nuclear Physics  
Homi Bhabha Professor, OAE  
2/4B, Sarat Base Road  
Kolkata -700020
62. **Prof. H Devraj, Vice-Chairman**  
University Grants Commission  
Bahadur Shah Zafar Marg.  
New Delhi-110 002



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63. **Prof. Goverdhan Mehta, Emeritus Professor**  
Hyderabad University,  
Hyderabad-500 046

64. **Prof. M.C. Chattapadhyay,**  
Retired Professor of Chemistry,  
Allahabad University,  
264-A, Allenganj,  
Allahabad-211002

**Special Invitee**

65. **Dr. Partha Pratim Lahiri**  
**Registrar (Acting)**  
Jadavpur University  
Kolkata-700 032.

66. **Sri G.K. Pattanayak**  
**Finance Officer**  
Jadavpur University  
Kolkata-700 032.

67. **Vacant**  
Any official of Expert in  
any field or eminent  
educationist, whom the  
University may require  
for advice , consultation  
or assistance, may be  
invited to attend the meeting

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**MEMBERS OF THE EXECUTIVE COUNCIL  
(As on 1st November, 2017)**

1. **Vice-Chancellor [Ex-Officio Member]**  
Professor Suranjan Das  
Jadavpur University
2. **Pro-Vice-Chancellor [Ex-Officio Member]**  
Dr. Ashish S. Verma  
Jadavpur University
3. **The Pro-Vice-Chancellor [Ex-Officio Member]**  
Prof. Pradip Kumar Ghosh,  
Jadavpur University  
Kolkata-700 032
4. **Smt. Madhumita Ray, [IAS]**  
Additional Secretary,  
Higher Education Department  
Government of West Bengal  
CS Branch  
Bikash Bhavan, Salt Lake  
Kolkata-700 091
5. **Sri Samir Kumar Ghosh**  
Financial Advisor Government of West Bengal  
Higher Education Dept.  
Bikash Bhavan ,  
Salt Lake  
Kolkata-700 091
6. **Sri Manojit Mandal**  
Nominee, Chairman of  
West Bengal State Council of Higher Education  
147-A, Rashbehari Avenue,  
Kolkata-700 029  
(Dept. of English)  
Jadavpur University
7. **Prof. Subhasis Biswas**  
**Dean, Faculty Council of Arts**  
Jadavpur University  
Kolkata-700 032
8. **Prof. Chiranjib Bhattacharjee**  
**Dean, Faculty Council of Engg. & Technology**  
Jadavpur University  
Kolkata-700 032
9. **Prof. Subrata Nath Koner,**  
**Dean, Faculty Council of Science**  
Jadavpur University  
Kolkata-700 032
10. **Prof. Samita Sen**  
**Dean, Faculty Council of Interdisciplinary Studies, Law & Management**  
Jadavpur University  
Kolkata-700 032

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11. **Prof. Udayan Bhattacharya**  
**Head, Dept. of Library & Information Sc.**  
Jadavpur University  
Kolkata-700 032
12. **Prof. Parimal Karmakar,**  
**Head, Dept. of Life Sc. & Biotechnology**  
Jadavpur University  
Kolkata-700 032
13. **Prof. Ashis Kumar Sarkar**  
**Head, Dept. of Mathematics,**  
Jadavpur University  
Kolkata-700 032
14. **Prof. Dipankar Sanyal**  
**Head, Dept. of Mechanical Engg.**  
Jadavpur University  
Kolkata-700 032
15. **Prof Pravash Chandra Chakraborti**  
**Head, Dept. of Met. & Mat. Engg.**  
Jadavpur University  
Kolkata-700 032
16. **Prof. Biswajit Mukherjee**  
**Head, Dept. of Pharmaceutical Technology**  
Jadavpur University  
Kolkata-700 032
17. **Prof. Atashee Chatterjee Sinha**  
**Head, Dept. of Philosophy,**  
Jadavpur University  
Kolkata-700 032
18. **Dr. Gopal Chandra Saha**  
**Head, Dept. of Physical Education**  
Jadavpur University  
Kolkata-700 032
19. **Prof. Argha Deb**  
**Head, Dept. of Physics**  
Jadavpur University  
Kolkata-700 032
20. **Prof. Amitava Datta**  
**Head, Dept. of Power Engg.**  
Jadavpur University  
Salt Lake Campus
21. **Prof. Kanai Chandra Paul**  
**Head, Dept. of Printing Engg.**  
Jadavpur University  
Salt Lake Campus
22. **Prof. Arunanshu Sekhar Kuar**  
**Head, Dept. of Production Engg.**  
Jadavpur University  
Kolkata-700 032

\*\* Tenure of Membership in Executive Council for members belongs to S.L. No. 10 to 21 is one year for each department.

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23. **Vacant**  
Three teachers, of whom at least one shall be Professor, elected by the teachers of the Department under the Faculty Council for Post-Graduate and Under-Graduate Studies in Engg. & Tech. from amongst themselves.
24. **Vacant**  
Three teachers, of whom at least one shall be Professor, elected by the teachers of the Department under the Faculty Council for Post-Graduate and Under-Graduate Studies in Arts from amongst themselves.
25. **Vacant**  
Three teachers, of whom at least one shall be Professor, elected by the teachers of the Department under the Faculty Council for Post-Graduate and Under-Graduate Studies in Science from amongst themselves.
26. **Vacant**  
One Teacher not below the rank of Associate Professor, elected by the teachers of the Schools under the Faculty Council of Interdisciplinary Studies Law & Management from amongst themselves
- Nominated Members (Chancellor's Nominee)**
27. **Prof. Suva Sankar Sarkar**  
Vice Chancellor,  
Netaji Subhas Open University, DD-26, Sector-1,  
Salt Lake City  
Kolkata-700 064
28. **Prof. Narendra Kumar Singh Gaur,**  
**Ex-Professor of Physics**  
**Allahabad University**  
**Former Minister of Higher Education,**  
15/3 Stanley Road, Tashkhand Marg,  
Civil Line,  
Allahabad-211 001
29. **Dr. Partha Pratim Lahiri,**  
**Registrar (Actg.)**  
Jadavpur University  
Kolkata-700 032.
30. **Sri G. K. Pattanayak (Invitee)**  
**Finance Officer**  
Jadavpur University  
Kolkata-700 032.

## **Annual Report 2016-17**

### **CENTRAL LIBRARY**

Phone : + 91-33-2414-6866 / 6460  
+ 91-33-2335-6578 (SL Campus)  
Int. : 2457-2522  
Int. : 6109 / 6110 (SL Campus)  
Chief Librarian : Dr. Shrabana Ghosh (Officiating)  
E-mail : chief librarian@jadavpuruniversity.in

The University Library System comprises the Central Library, Salt lake Campus Library, Departmental Libraries and the Libraries attached with different Schools and Centres for higher studies; along with Centre for Digital Library and Documentation.

The Central Library of Jadavpur University is housed in the three-storied building on Jadavpur Campus. Its shelving space and working space is about 36,000 sq. ft. (approx.) and is extended by new construction of four-storied building Annex Building (each floor 5500sq. ft). There are more than 14 service units/sections in Central Library to run the total library system. The Check counter, Membership Registration, Circulation Section, Book Dispatch Section, General Reading Room, Bound volume Section (mezzanine floor) are located in the ground floor of the Old Building. The first floor has the BKSO Section, Old and Rare Section, Serials Section, Binding Section, Office of the Chief Librarian and the Xerox Section. The second floor has the Cataloguing Section, Reference Section, Labeling Section and the Librarian's room. The ground floor of the Annex Building houses the Bound Volume Journals. The Centre for Digital Library and Documentation including the Learning Resource Center is operational in the first floor of the Annex building; the 2<sup>nd</sup> floor has the Bound Volume Journals (Science & Bengali) and the 3<sup>rd</sup> floor houses the Theses Section. The Central Library has eight reading rooms, carrels, and an alcove for bound volume journals. The total sitting arrangement is near about 800 readers at a time.

There is a separate library building on the Second Campus at Salt Lake. Total floor area of the library is near about 6,940 sq. ft. in ground floor. The first floor of the library building is nearly completed with same floor area of ground floor. The total sitting arrangements in the reading rooms for the readers are 80 seats; 5 for faculty members and 75 for student members at a time respectively. The users sitting arrangements in the first floor reading room will be comparatively increased.

The Centre for Digital Library and Documentation has been established in November 2003 in the first floor of the new Annex Building of Central Library under the Potential for Excellence Program-I of UGC. The Digital Library has a Learning Resource Centre (LRC) with 60 Nos. of terminals, 8 Nos. of servers and one reading room for users. The Digital Library Data Management Software *D-space* has been installed & now it is in operation.

All the facilities of Digital Library are available on the Salt Lake Campus Library which is linked with the Central Library. There are two servers for managing the Digital Library connectivity & 6 terminals for Learning Resource Centre for students.

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Most of the Departments have Departmental Libraries. Reading and borrowing facilities in the appropriate manner are given in the Departmental Libraries to the faculty members and students, scholars of the Department. All the computers in the campus are connected through LAN and are IP address authenticated so that all e-resources can be accessed from all the computers.

On Salt Lake Campus, there are 5 (five) Departments, 1 (one) School and 1 (one) Centre (Nuclear Engineering) in Power Engineering Dept. under the Faculty of Engineering and Technology of the University. There is an Academic Staff College (UGC). There are no department libraries at Salt Lake Campus. But the Academic Staff College and Centre for Mobile Computing and Communication each has separate library. All Faculty Members, Students, Research Scholars, Officers and Non-Teaching staff members are enjoying library service facilities from only one Campus Central Library. Since 1989, all Library Administrative and library functions are systematically organized and done by Salt Lake Campus Library following the integrated and uniform library rules, under the Jadavpur University library system, separately.

A considerable part of the Library's collection consists of gifts from individuals and institutions, the largest book donation having been from Sri Uday Kumar Das, Kumar S. C. Nandy of Cossimbazar, NCE Bengal, the British Council, USIS, Asia Foundation, the late A. K. Chanda, Srinath Das, Hemchandra Dasgupta, Hemendraprasad Ghosh, Prof. Triguna Sen, Prof. Gopal Sen, Taraknath Das, Sudhindranath Datta and others. The gift collections contain a good stock of old materials valuable for research in the Humanities and Social Sciences.

The Central Library has about **6,54,540 (approx.)** volumes of books , **82,154** bound volumes of journals, **9147** theses, **8631** dissertations, **3000** standards & **37,000** items of non-book materials such as reports, pamphlets, maps and micro-forms. In addition to that, Salt Lake Campus Library has about **33, 105 (approx.)** volumes of books.

The total number of books added during April 2016 to March 2017 were **4242** in Central Library and **313** in Salt Lake Campus Library. The total number of theses accessioned and catalogued are **230** and **275** respectively. The total number of theses uploaded in **Sodhganga** is **105**.

The total number of journals subscribed by Central Library in **Print** is **213** (approx.), **Online** is **3555**(approx.) and **Print + Online** is **44**. The total number of journals subscribed by Salt lake Campus Library in **Print** is **48** (approx.), **Online** is **18** and **Print +Online** is **7**. The University has access to **9314** (approx.) **Online** journals from **eSodhSindhu (INFLIBNET)** .

The total number of **E-books** subscribed in 2016-17 are **LNCS 610, LNP 20, Ebrary 142618** (approx.).

The total number of books catalogued is **4451** (approx.), labelled **6499** (approx.) and dispatched **4007** (approx.).

The total number of books issued is **24981** (approx.) and returned is **21234** (approx.).

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The number of users visited General Reading Room and Reference Section is **16497** (approx.) and **3480** (approx.) respectively.

The total number of users in Centre for Digital Library and Documentation is **7633** (approx.); the users' service provided through pendrive/CD is **1619**; and total Question Papers uploaded is **507**.

The total number of Library Members in Central Library is about **10,500**. Out of total number of Library Members, Salt Lake Campus has about **1200** members. In the year 2016-17, approximately **3315** members were added in Central Library and approximately **250** members were added in Salt Lake Campus Library.

Databases of books, journals and theses etc. are created and being updated. The databases are also available through the university website [www.jaduniv.edu.in] on the internet. Facilities for searching Databases and Internet are also available to all users in the different floors of Central Library and also through all network enabled computers in both the campuses.

### **Activities of Central Library**

**Vietnam Book Corner** : Vietnam Book Corner was opened at the Reference Section of Central Library, Jadavpur University on November 4 , 2016 with an aim of boosting cultural exchanges between the two countries. Some of the books were collected by the India-Vietnam Solidarity Committee in West Bengal; and others were donated by the Vietnamese Embassy in India and the Vietnamese Ministry of Information and Communications. A total number of 186 books were donated on the occasion.

At the launching ceremony of the space at Jadavpur University, Professor Suranjan Das –Vice Chancellor of the University – spoke highly of the traditional and longstanding friendship between India and Vietnam, stating that the opening of the corner was a practical move to encourage Indian students to study Vietnamese history and culture. He expressed the hope that the two countries would step up exchanges and cooperation in research and training.

**Sixth Internship Programme of BLISC students** : A three month training of the BLISc passed students under the Sixth Internship Programme (July-September) was organised in the different Sections of Central Library and Departmental Libraries.

**Seminar under TEQIP** : A one-day seminar entitled “Libraries and Technological Changes: Today and Tomorrow” for the professional library staff members of Jadavpur University was organised on 30<sup>th</sup> March, 2017 under TEQIP II. The professional staff of Central Library, Salt Lake Campus Library and Departmental Libraries participated in the programme.

### **Seminar/Workshop/Symposium Attended**

Dr. Shrabana Ghosh, Chief Librarian (Officiating) and Mr. Samit Pahari, Information Scientist participated in the Workshop on Institutional Digital Repository for National Digital Library (NDL) of India on March 10-11, 2017, Jointly organised by University Library, University of Calcutta and NDL Project, IIT Kharagpur

Dr. Shrabana Ghosh, Chief Librarian (Officiating) acted as the Jt. Coordinator in the one-day seminar entitled “Libraries and Technological Changes: Today and Tomorrow” for the professional library staff members of Jadavpur University organised on 30<sup>th</sup> March, 2017 under TEQIP II.



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**Participation in iETD Conference of INFLIBNET-** Dr. Swaguna Datta and Mr. Sukanta Patra, professional staff members of Central Library participated in the iETD National Conference on “Evolving ETDs to Knowledge Repositories” organized by Information and Library Network (INFLIBNET) from 5<sup>th</sup> -7<sup>th</sup> October, 2016 at INFLIBNET Centre, Gandhinagar, Gujarat.

### **DAY CARE CENTRE**

Int. : 2457-2950

Coordinator : Prof. Nilanjana Gupta

Jadavpur University Day Care Centre (JUDCC) began its operations on September 1, 2011. High demand from the university community and satisfactory performance of the Centre have ensured filling up of all the seats quickly after the establishment of the Centre. The University has decided to allot additional space for the Centre for accommodating the children whose parents have applied for registration of their wards but have been waiting for a long time. The renovation work in the additional space on the ground floor of the Multi-Storey Teachers' Quarters has been completed and the purchase of furniture and other accessories is in progress.

Children aged between one and twelve stay at the centre. There are 15 wards registered as 'regular' and 3 wards using the Centre on 'casual' basis. Some of the children come from their schools and some from home. They engage in games as well as various creative activities daily.

Round the year, the Day Care Centre organizes various programmes including recitation, singing, painting, dance, plays, story-reading, creative writing and sports. It celebrated 'Rabindra-Nazrul Sandhya' on 11 June, 2016. The Annual Cultural Program was organized on 16 January, 2017. The children rehearsed for each of these programs enthusiastically and put up performances that were enjoyed by all. A Carom competition was held on 16 November, 2016. The Annual Sports was held on 10 December, 2016. The magazine of JUDCC *Kochi Kanchader Haat* was published on 11 March, 2017.

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**MEMORANDUM OF UNDERSTANDING  
(April 2016 to March 2017)**

<b>Sl.No</b>	<b>MoU/MoA Between</b>	<b>Date of Execution/ Duration</b>	<b>Contact Person(s)/ Address</b>	<b>Scope of Work</b>	<b>Remarks / E.C. Resl.</b>
G-01	Indian Institute of Cerebral Palsy(IICP) & Jadavpur University,	12.04.2016	HOD, ACEE, JU	Two year course in B.Ed.Special Education (Multiple Disabilities) for one Academic Session. Photocopy is at hand.	
F-02	Rutgers, The State University of New Jersey, NJ, USA & Jadavpur University,	13.04.2016	Dr. Shyamal Roy, Chemical Engg. Dept., JU	To enhance collaboration with individuals interested in related research activities and to provide access for scientists to the publicly funded research facilities. Photocopy is at hand.	
G-03	Shri Partha Pande & Jadavpur University,	15.04.2016	Shri Sanjay Gopal Sarkar, Jt. Registrar (Academic), JU	Endowment for awarding a scholarship to be named after "Smt. Bani Pande Engineering Scholarship". Original signed copy is in hand.	
F-04	American Scientific Publishers & Jadavpur University,	18.04.2016	Mr. Manilal Murmu, Chief Librarian, JU Library Site	License Agreement Photocopy is at hand.	
G-05	INFLIBNET Centre And JU	22.04.2016	Shodhganga: repository of Indian Electronic Theses and Dissertations. Original copy is at hand.		
F-06	First Amendment to Sub-contract between University of Southampton & Jadavpur University,	02.05.2016	Dr. Tuhin Ghosh, School of Oceanographic Studies, JU	With effect from the date of this First Agreement, the End Date shall now extend to 30 <sup>th</sup> December, 2016. Photocopy is at hand.	
F-07	Jiangsu University, Zhengjiang, China And Jadavpur University.	12.05.2016	VC	Field of research, teaching collaboration Photocopy is at hand.	
G-08	St. Thomas Technical Training Centre And JU	24.05.2017	DACEE	One year Full Time Technician Training course on "Air-Conditioning and Refrigeration". Photocopy is at hand.	
G-09	Indian Institute of Cerebral Palsy	24.05.2016	DACEE	One year Full Time Technician Training course on "Air-Conditioning and Refrigeration Photocopy is at hand.	
F-10	Institute of Chines Studies, Delhi And JU	01.06.2016		Original copy is at hand.	
F-11	Yunnan Normal University, Kunming, China And Jadavpur University	13.06.2016	V.C.	Multi cooperation between faculty members, departments and other affiliated institutes and programs. 5 years. Original copy is at hand.	
G-12	See-2007 Homi Bhabha National Institute And Jadavpur University	15.06.2016		To enhance collaborative research in the areas of mutual interest, both in extent and scope by using the medium of research students enrolled in the Partner Institutes. Original copy is at hand.	
F-13	The Adam Mickiewicz University, Poznan, Poland And JU	16.06.2016		Co-operation in the fields of scientific research and develop academic contacts between faculty members of both institutions. Photocopy is at hand.	

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- F-14 Bishwa Bandhan Foundation for Cerebral Palsy, Surich And J.U 17.06.2016 V.C. Provide a one-stop platform for information and support on Cerebral Palsy. Original copy is at hand.
- G-15 St. Thomas Technical Training Centre And JU 17.06.2016 DACEE Technical Training Course on “Computer Hardware” Photo copy is at hand.
- G-16 TMC Institute of Learning And JU 17.06.2016 DACEE Vocational Course on “Industrial Practice” Photo copy is at hand.
- F-17 Yunnan Normal University, Kunming, China And JU 20.06.2016 Research, teaching and collaboration Original copy is at hand
- F-18 University of Free State, South Africa And Jadavpur University, 30.06.2016 Dr. Pulok Kr. Mukherjee, Pharmaceutical Tech. Student and Faculty member exchange programme.5 years Photocopy is at hand.
- G-19 National Institute of Pharmaceutical Education and Research (NIPER) And Jadavpur University. 30.06.2016 Dr. Pulok Kr. Mukherjee, Pharmaceutical Tech. Joint Research activities Photocopy is at hand.
- G-20 TAAB Biostudy Services And Jadavpur University, 11.07.2016 Analysis of Drug, medicine samples from different companies. 5 years Photocopy is at hand.
- G-21 Sage Publications India Pvt. Ltd. And Jadavpur University, 11.07.2016 Director Women Studies Publishing a book entitled “Voices and Verses of the Talking Stars: Women of Indian Cinema and Beyond by Madhujā Mukherjee. Original copy is at hand.
- F-22 University of East London, United Kingdom And Jadavpur University, 12.07.2016 Dr. Pulok Kr. Mukherjee, Pharmaceutical Tech. Student and Faculty member exchange programme. 5 years Photocopy is at hand.
- G-23 Indian Institute of Technology, Roorkee And Jadavpur University, 12.07.2016 Dr. Pulok Kr. Mukherjee, Pharmaceutical Tech. Joint research activities. 5 years Photocopy is at hand.
- G-24 Sri Ramachandra University, Chennai And Jadavpur University, 12.07.2016 D r . Pulok Kr. Mukherjee, Pharmaceutical Tech. Student and Faculty member exchange programme.5 years Photocopy is at hand.
- G-25 Prariksa Co. And Jadavpur University, 15.07.2016 Placement Officer Placement preparation programme for undergraduate students Xerox copy is at hand.
- G-26 Dynavision Digitech Pvt. Ltd. And Jadavpur University 26.07.2016 DACEE P.G. Diploma in Data Science & Industrial Application For the Session 2016-2017. Xerox copy is at hand.
- G-27 Manovikash Kendra Rehabilitation and Research Institute for the Handicaped And JU 28.07.2016 DACEE Two years course in B.Ed. Photo copy is at hand.
- F-28 Ministry of Information and Broadcasting And JU 16.08.2016 Redio, JU Original copy is at hand.
- F-29 Ming chi University of Technology, Taiwan And JU 03.09.2016 Subhas Ch. Panaj, ME Faculty exchange Programme. Original copy is at hand,

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- G-30 Indian Institute of Ceribral Palsy And Jadavpur University 08.09.2016  
DACEE Web Designing and Publishing Xerox Copy is at hand.
- G-31 Indian Institute of Ceribral Palsy And Jadavpur University 08.09.2016  
DACEE Office Management Xerox Copy is at hand.
- G-32 HYATT Regency And Jadavpur University 18.09.2016  
Registrar Special Corporate Rate Offer Original letter is at hand.
- G-33 DBT, Ministry of Science and Tech. And JU 26.09.2016  
Dr. Mehabub Rahaman, Dept. of Chemical Engg. Project entitle Clean Water and Health. Photo copy is at hand.
- G-34 The University Grants Commission And JU 16.11.2016  
Dr. Kaustuv Das, Dept. of Physics Faculty Recharge Programme Photocopy is at hand.
- G-35 GLA University Mathura And JU 21.11.2016  
Academic co-operation E.C. Resol. No.10 dated 05.07.2016
- G-36 Ministry of Housing and Urban Poverty Alleviation And JU 23.11.2016  
Photo copy is at hand.
- G-37 Guru Nanak Institute of Technology And JU 07.12.2016  
T.K. Chatterjee Photocopy is at hand.
- G-38 DBT And JU 07.12.2016  
Dr. Subhas Chandra Mandal Photocopy is at hand.
- G-39 TCS Foundation 23.12.2016  
Nandini Mukherjee Academic co-operation Photocopy is at hand.
- F-40 The Port and Airport Research Institute And JU 28.12.2016  
Prof. Sugata Hazra Technical cooperation in the fields of biogeochemistry in Indian Estuaries Original copy is at hand.
- G-41 Alphabet Books & Jadavpur University 07.01.2017  
Mahuya Sarkar, , JU Publication of edited vol. entitled 'Environment and the Adivasi World.' Original copy is at hand.
- G-42 Tata Consultancy Services Ltd. And JU 13.01.2017  
Bhibas Ch. Dhara Salt Lake Campus User oriented ME Programme Photocopy is at hand.
- G-43 Dr. Anamika Ray Memorail Trust And JU 31.01.2017  
Radio JU Survey Programme Photocopy is at hand.
- F-44 American Jewish World Service And JU 03.02.2017  
Sumita Sen Love, Law and Labour: Child Marriage in West Bengal Original copy is at hand.
- P-45 Alphabet Books And JU 07.02.2017  
Mahua Sarkar, Dept. of History Publication of Book entitled "Environment of Adivasi World. Original copy is at hand.
- P-46 IICP And JU 20.02.2017  
DACEE Certificate course in Basic Management of Cerebral Palsy Photo copy is at hand

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- P-47 National Insurance Co. And JU 28.02.2017  
Group Medicine Policy Original copy is at hand.
- P-48 Suryodaya Books And JU 28.03.2017  
Aparajita Mukherjee Publishing a book provisionally entitled "Sri Aurobindo on Body, Mind and Human Condition. Photo copy is at hand.

### **NATIONAL SERVICE SCHEME (N.S.S.)**

Phone : +91-33-2414-6151  
Fax : (033-2414-6151)  
Int. : 2457-2502  
Co-ordinator : Dr. Anupam Deb Sarkar

The motto of the National Service Scheme is 'NOT ME BUT YOU'. It is in the line of this motto, the NSS unit of J.U., under the co-ordination of the Dr. Anupam Debsarkar does various activities of the body emphasizing on community and student welfare and to develop a sustainable sensitivity in the student-volunteers towards their fellow beings, the underprivileged and the challenged. The activities are categorized into two parts - Regular activities and Special Camps. Jadavpur University's N.S.S. activities from April, 2016 to 31<sup>st</sup> March, 2017 are mentioned below:

#### **A. Major Achievements (2016-2017)**

##### **i) International Youth Exchange Programme, China**

NSS Student volunteers from Jadavpur University viz. Miss Devapriti Jana (International Relations, P.G.-II), participated in the Inter National Youth Exchange Programme at Republic of China organized by Ministry of Youth Affairs and Sports Department, Government of India, during the period 18<sup>th</sup> to 24<sup>th</sup> June, 2016.

##### **ii) Adventure Programme**

##### **Atal Bihari Vajpayee Institute of Mountaineering & Allied Sports (ABVIMAS), Hatkoti, Kharapather, Himachal Pradesh**

NSS Student volunteers from Jadavpur University viz. Mr. Ranajit Jana (Philosophy, P.G.-II), Mr. Nazbul Gazi (Philosophy, P.G.-II), Mr. Samip Sinchuri (Sociology, P.G.-II), Mr. Santu Bera (Education, M.Phil), Mr. Bikash Chandra Ghorai (B.Ed.,U.G.-I), Miss. Shradha Rai (Sociology, P.G.-II), Miss Dipa Sarkar (Education, P.G.-II), Miss. Mousumi Biswas (Education, P.G.-II), Miss Rina Banerjee (Education, P.G.-II) and Miss. Kumkum Mondal (Education, P.G.-II) were selected for the Adventure Programme at Atal Bihari Baipayee Institute of Mountaineering & Allied Sports (ABVIMAS), Hatkoti, Kharapather, Himachal Pradesh from 5<sup>th</sup> to 14<sup>th</sup> October, 2016 under the supervision of Miss. Sanjita Sarkar, as a official of NSS, J.U.

**iii) East Zone Pre-Republic Day Camp: Yuva Abash, Yuva Bharati Krirangan, Salt Lake, Kolkata**

NSS student volunteers from Jadavpur University viz. Mr. Milind Khatiwada (Comparative Literature, U.G-II), Mr. Tanmoy Mallik (Philosophy, UG-II) and Mr. Sandeep Kumar (Chemical Engineering UG-II) were selected for the East Zone Pre-Republic Day Camp at Yuva Abash, Yuva Bharati Krirangan, Salt Lake, Kolkata from 10<sup>th</sup> to 19<sup>th</sup> November, 2016.

**iv) Republic Day Camp, Rajpath, Delhi**

NSS student volunteer from Jadavpur University viz. Mr. Milind Khatiwada (Comparative Literature, U.G.-II) was selected for the Republic day Camp, Rajpath, Delhi from 1<sup>st</sup> to 31<sup>st</sup> January, 2017.

**v) Republic Day Camp, Red Road, Kolkata**

NSS student volunteers from Jadavpur University viz. Mr. Raju Sardar (Philosophy, UG-II), Mr. Tanmoy Mallik (Philosophy, UG-II), Mr. Sandeep Kumar (Chemical Engineering, UG-II), Miss. Latika Sardar (Bengali, UG-I) and Miss. Rima Talukder (Philosophy, UG-I) were selected for Republic day Camp, Red Road, Kolkata from 4<sup>th</sup> to 26<sup>th</sup> January, 2017.

**vi) National Integration Camp, Bengaluru**

NSS student Volunteers from Jadavpur University viz. Mr. Samip Sinchuri (Sociology, PG-II), Mr. Mayuk Das (Computer Science, PG), Miss. Sardha Rai (Sociology, PG-II) and Miss. Dipti Zimba (Comparative Literature, PG- II) participated in the National Integration Camp at Bengaluru from 3<sup>rd</sup> to 9<sup>th</sup> January, 2017.

**vii) National Youth Festival, Rohtak, Hariyana**

NSS student volunteers from Jadavpur University viz. Mr. Subhankar Halder (Sanskrit U.G.-III), Mr. Nazbul Gazi (Philosophy, PG-II), Miss. Sweta Ghatak (Sanskrit, UG-II), Miss. Mimi Mondal (Education, B.Ed.), were participated National Youth Festival Camp at Rohtak, Hriyana from 12<sup>th</sup> to 16<sup>th</sup> January, 2017.

**viii) National Integration Camp, Sh. Ramchandra Mission Asram, Amleswer, Dist- Durg, State- Chattisgarh**

NSS student volunteers from Jadavpur University viz. Mr. Puspendu Bikash Sahoo (Philosophy, PG-II) and Miss. Monalisha Bhakta (Education, PG-I) participated in the National Integration Camp at Sh. Ramchandra Mission Asram, Amleswer, Dist- Durg, State- Chattisgarh from 9<sup>th</sup> to 15<sup>th</sup> February, 2017.

**ix) National Integration Camp, Bankura Christian Collage, Bankura, West Bengal**

NSS student volunteers from Jadavpur University viz. Mr. Subhankar Haldar (Sanskrit, UG-III), Mr. Toydul Islam Molla (International Relation, UG-II), Mr. Asif Sardar (International Relation, UG-II), Mr. Josimuddin Seik (Sanskrit UG-I), Mr. Ranajit Jana (Philosophy, PG-II), Miss. Mimi Mondal (Education, B.Ed.), Miss. Taniya Mondal (Sanskrit, UG-I), Miss. Puja Rani Pal (Sanskrit, PG-II), Miss. Sushmita Das (History, UG-I) and Miss. Madhabi Mondal (Library and Information Science) participated in the National Integration Camp at Bankura Christian Collage, from 7<sup>th</sup> to 13<sup>th</sup> February, 2017.

**B. Special Camps (2016-2017)**

1. Colony development, health awareness, drawing competition and blood donation camp at Sarsuna Banerjee Para Adarsha Samity, Banerjee Para Road, Sarsuna, Kolkata-700061, dated 14<sup>th</sup> to 20<sup>th</sup> August, 2016. No. of participants – 50 (Male- 32, Female-18), beneficiaries- 450 (Male- 205, Female-245), blood donors- 72 (Male: 60, Female: 12).



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2. Slum development, health awareness, educational kits distribution camp at Foolar basti, Moti Mistri basti, Sannyashi basti, Kendua Road, Ward no.- 101, Kolkata, dated 21<sup>st</sup> to 27<sup>th</sup> August, 2016. No. of participants – 50 (Male- 26, Female-24), beneficiaries- 236 (Male- 115, Female-121).
3. Health awareness with health check up programme, drawing competition and educational kits distribution with Swachh Bharat Abhiyan programme at Oxford Mission, Barisha, Kolkata-700008, dated 21<sup>st</sup> to 27<sup>th</sup> August, 2016. No. of participants - 50 (Male- 28, Female-22), beneficiaries- 250 (Male- 149, Female-101).
4. Village development including project identification programme at New seminar room, Department of Civil Engg., Jadavpur University and 15 Village of South 24 Parganas, dated 20<sup>th</sup> to 26<sup>th</sup> September, 2016. No. of participants - 50 (Male-30, Female-20).
5. Project identification, health awareness with anti malaria drive programme, drawing competition and educational kits distribution camp at Silpara Yubak Brinda Club, Barisha, Kolkata, dated 25<sup>th</sup> September to 1<sup>st</sup> October, 2016. No. of participants - 50 (Male-30, Female- 20), beneficiaries- 283 (Male- 152, Female-131).
6. Digital India: Programme for computer literacy for economically backward student at Kalikapur, KMC, Ward no.106, Kolkata, dated 26<sup>th</sup> September to 2<sup>nd</sup> October, 2016. No. of participants - 50 (Male-35, Female-15), beneficiaries- 35 (Male- 24, Female-11).
7. Cleaning and beautification programme under “Swachh Bharat Abhiyan” at Jadavpur University Main Campus, dated 4<sup>th</sup> to 10<sup>th</sup> November, 2016. No. of participants - 50 (Male-30, Female- 20).
8. Environment including preservation of natural resource and tree plantation programme at Jadavpur University Main Campus, dated 19<sup>th</sup> to 25<sup>th</sup> November, 2016. No. of participants - 50 (Male-35, Female-15).
9. Health awareness and socio-economic survey at Sakuntala Park, Ward no.-128, Kolkata-700061, dated 18<sup>th</sup> to 24<sup>th</sup> December, 2016. No. of participants – 50 (Male-35, Female-15), beneficiaries- 321 (Male- 190, Female-131).
10. Environment and health awareness programme at Hedayet para, Ward no.- 125, Kolkata-700063, dated 1<sup>st</sup> to 7<sup>th</sup> January, 2017. No. of participants – 50 (Male-35 Female-15), beneficiaries - 223 (Male-121, Female-102).
11. Colony development including project identification and health awareness programme at Barisha Janakalyan Vidyapith, Barisha, Kolkata, dated 8<sup>th</sup> to 14<sup>th</sup> January, 2017. No. of participants - 50 (Male – 35, Female-15), beneficiaries- 354 (Male- 123, Female-231).
12. Colony development programme with health check up and educational kits distribution programme at Dargatala, Ward no.- 125, Thakurpukur, Kolkata, dated 26<sup>th</sup> January to 1<sup>st</sup> February, 2017. No. of participants - 50 (Male- 26, Female-24), beneficiaries – 451 (Male- 220, Female-231).
13. Colony development including project identification and health check up programme at Adarsha Sangha, Adarshanagar, Ward no. 129, Kolkata, dated 29<sup>th</sup> January to 4<sup>th</sup> February, 2017. No. of participants – 50 (Male- 28, Female-22), beneficiaries- 268 (Male-189, Female-79).
14. Colony development including project identification with health check up and educational kits distribution programme at Panch Masjid Road, Paschim Para, Thakurpukur, Kolkata-700063, dated 4<sup>th</sup> to 10<sup>th</sup> February, 2017. No. of participants – 50 (Male- 25, Female-25), beneficiaries- 312 (Male- 192, Female-120).
15. Rural development including project identification with health awareness and educational kits distribution programme and “Swachh Bharat Abhiyan” at Charalkhali, P.O.-



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Chandanpur, P.S.-Hingalgunge Dist.- North 24 Pargana, Pin-743439, dated 10<sup>th</sup> to 16<sup>th</sup> February, 2017. No. of participants – 50 (Male- 35, Female-15), beneficiaries- 442 (Male-260, Female-182).

16. Environment and health awareness programme under “Swachh Bharat Abhiyan” with science awareness and sit and drawing competition programme at Behala High School Banamali Naskar Road, Ward no.-132, Kolkata-700034, dated 25<sup>th</sup> February to 3<sup>rd</sup> March, 2017. No. of participants – 50 (Male-31, Female-19), beneficiaries - 305 (Male- 173, Female-132).
17. Environment enrichment and conservation programme at Jadavpur University 2<sup>nd</sup> Campus and campus premises slum, dated 8<sup>th</sup> to 14<sup>th</sup> March, 2017. No. of participants – 50 (Male-32, Female-18), beneficiaries - 153 (Male- 100, Female-53).
18. Environment awareness, health awareness (dengue) and health check up and educational kits distribution camp at Netaji Basti, Dhakuria, Kolkata, dated 11<sup>th</sup> to 17<sup>th</sup> March, 2017. No. of participants – 50 (Male-29, Female-21), beneficiaries - 250 (Male- 120, Female-130).
19. Environment enrichment and conservation camp at Satjalia, South 24 Paraganas, Sundarban, dated 17<sup>th</sup> to 23<sup>rd</sup> March, 2017. No. of participants – 50 (Male-35, Female-15), beneficiaries- 362 (Male- 202, Female-160).
20. Marine awareness and disaster management camp at Sea Explorers Institute, Outram ghat, Kolkata, dated 21<sup>st</sup> to 27<sup>th</sup> 2017. No. of participants – 50 (Male-26 Female-24).
21. Colony development programme with health awareness and educational kits distribution programme at Dakshin Behala Primary School, Khudiram Pally, Ward no.-126, Kolkata, dated 25<sup>th</sup> to 31<sup>st</sup> March, 2017. No. of participants – 50 (Male- 26, Female-24), beneficiaries- 253 (Male- 186, Female- 67).
22. Environment enrichment and conservation camp at Jadavpur University Main Campus, dated 25<sup>th</sup> to 31<sup>st</sup> March, 2017. No. of participants – 50 (Male-27, Female-23), beneficiaries- 210 (Male- 108, Female-102).
23. Project identification, cleaning and beautification and environment awareness camp at Vill- Ramnagar, P.O.- Dhapdhapi, South 24 Parganas, Pin.-743387, dated 25<sup>th</sup> to 31<sup>st</sup> March, 2017. No. of participants – 50 (Male-32, Female-18), beneficiaries- 502 (Male-250, Female-252).
24. Adult literacy and educational kits distribution with environment awareness camp at Keyatala Basti, Golpark, Kolkata, Pin.-700029, dated 25<sup>th</sup> to 31<sup>st</sup> March, 2017. No. of participants - 50 (Male-30, Female-20), beneficiaries- 150 (Female-150).
25. Health awareness programme with cleaning and beautification programme at Mukundapur mouja, Jagadipota, South 24 Paraganas, dated 25<sup>th</sup> to 31<sup>st</sup> March, 2017. No. of participants – 50 (Male-29, Female-21), beneficiary- 100 (Male- 62, Female-38).

#### **C. Regular Activities (2016-2017)**

1. Blood donation camp at TEQIP building, Jadavpur University Main Campus, Kolkata-700032, dated 6<sup>th</sup> April, 2016. No. of participants – 50 (Male- 35, Female-15), blood donors- 72 (Male – 54, Female-18).
2. Pulse polio immunizing programme at Netaji Basti, Dhakuria, Kolkata, dated 29<sup>th</sup> May, 2016. No. of participants – 20 (Male-10, Female-10), beneficiaries- 58 (Male- 40, Female- 18).
3. World Environment Day at Satin Sen Park, Sarsuna Kolkata, dated 5<sup>th</sup> June, 2016. No. of participants – 322 (Male- 222, Female-100), Sapling distributed- 250.

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4. Celebration of “2<sup>nd</sup> International Day of Yoga” at Jadavpur University Main Campus, Kolkata-700032, dated 9<sup>th</sup> and 21<sup>st</sup> June, 2016. No. of participants – 475 (Male- 296, Female-179).
5. Observation of “Banamahotsab Week” at Jadavpur University Main Campus and Main Hostel, dated 3<sup>rd</sup> to 6<sup>th</sup> July, 2016. No. of participants – 60 (Male- 60), Sapling planted- 200.
6. Observation of “Banamahotsab Week” at Charalkhali, Chandanpur, Hingalgunge Dist.- North 24 Paragnas, dated 7<sup>th</sup> July, 2016. No. of participants – 65 (Male- 35, Female-30), beneficiaries- 255 (Male- 125 Female-130), Sapling distributed- 300.
7. Observation of “Banamahotsab Week” at Barisha, Udayan Pally Club, Silpara, D. H. Road, Kolkata, dated 24<sup>th</sup> July, 2016. No. of participants – 30 (Male- 15, Female- 15), beneficiaries- 104 (Male-78, Female-26). Sapling planted- 50.
8. Celebration of Independence Day at Jadavpur University Main Campus and Netaji Basti, Dhakuria, dated 15<sup>th</sup> August, 2016. No. of participants – 300 (Male- 175, Female-125), beneficiaries- 100 (Male- 56, Female-44).
9. Anti dengue and malaria drive programme at Jadavpur University Main Campus, dated 20<sup>th</sup> August, 2016. No. of participants – 50 (Male- 28, Female-22), beneficiaries- 450 (Male- 250, Female-200).
10. Thalassaemia awareness programme at Santi Sangha Shikha Mandir (Girl’s High School), Ward no- 131, Behala, Kolkata-60, dated 20<sup>th</sup> August, 2016. No. of participants – 20 (Male- 05, Female-15), beneficiary- 340 (Female-340).
11. Rally on ‘Triranga March’ at Jadavpur University Main Campus, dated 21<sup>st</sup> August, 2016. No. of participants – 105 (Male- 66, Female-39).
12. Science talent search programme at Sarsuna High School and Behala Girl’s High School, Kolkata, dated 18<sup>th</sup> September, 2016. No. of participants – 282 (Male- 182, Female-100).
13. Blood donation camp at Gandhi Bhavan, Jadavpur University Main Campus, dated 23<sup>rd</sup> September, 2016. No. of participants – 20 (Male- 15, Female-5), blood donors- 95 (Male- 72, Female-23).
14. Awareness programme on ‘Save the Girl Child’ at New seminar room, Department of Civil Engineering, Jadavpur University Main Campus, dated 24<sup>th</sup> September, 2016. No. of participants – 85 (Male- 56, Female- 29).
15. Pulse polio immunization programme at Netaji Basti, Dhakuria, Kolkata, dated 25<sup>th</sup> September, 2016. No. of participants – 10 (Male- 10, Female-10), beneficiaries-58 (Male- 28, Female-30).
16. Workshop on ‘Social Inclusion through Digital Inclusion’ at New seminar room, Department of Civil Engineering, Jadavpur University Main Campus, dated 28<sup>th</sup> September, 2016. No. of participants – 89 (Male- 54, Female-35).
17. Clothes distribution programme at Behala Club Sarbojanin, Behala, Kolkata, dated 5<sup>th</sup> October, 2016. No. of participants – 25 (Male- 15, Female-10), beneficiaries - 650 (Male- 350, Female-300).
18. Clothes distribution programme at Satin Sen Park, Sarsuna, Kolkata, dated 6<sup>th</sup> October, 2016. No. of participants – 25 (Male- 15, Female-10), beneficiaries- 48 (Male- 26, Female-22).
19. Awareness campaign on ‘Global Warming’ at Kolkata to Palasi, dated 8<sup>th</sup> to 9<sup>th</sup> October, 2016. No. of participants – 56 (Male- 40 Female-16).
20. Workshop on ‘Ill Effects of Drugs Abuse and Addiction’ at Gandhi Bhavan, Jadavpur University Main Campus, dated 25<sup>th</sup> October, 2016. No. of participants – 356 (Male- 216, Female-140).

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21. Awareness programme on 'Anti Superstation and Science' at Parnasree, Ward no.- 131, Behala, Kolkata, dated 2<sup>nd</sup> November, 2016. No. of participants – 15 (Male- 10, Female-05), beneficiaries- 89 (Male- 52, Female-37).
22. Cleaning and beautification programme at Jadavpur University Main Hostel, Kolkata, dated 5<sup>th</sup> and 6<sup>th</sup> November, 2016. No. of participants – 50 (Male- 50).
23. Workshop, Debate, SMS competition on Anti Ragging at TEQIP building, Jadavpur University Main Campus, dated 16<sup>th</sup> November, 2016. No. of participants – 112 (Male- 72, Female-40).
24. Awareness programme on the topic 'E-banking & cashless payment' at New seminar room, Department of Civil Engineering, Jadavpur University, dated 1<sup>st</sup> December, 2016. No. of participants – 65 (Male- 32, Female-33).
25. Youth convention and health awareness programme at Netaji Indoor Stadium, Kolkata dated 28<sup>th</sup> December, 2016 and 7<sup>th</sup> January, 2017. No. of participants – 51 (Male- 26, Female- 25).
26. Exhibition on NSS Activities at Mandir Gate, Ramakrishna Mission Ashram, Narendrapur, dated 20<sup>th</sup> to 22<sup>nd</sup> January, 2017. No. of participants – 40 (Male- 30, Female-10).
27. Observance of National Youth day at K.P. Basu Memorial Hall, Jadavpur University, dated 24<sup>th</sup> January, 2017. No. of participants – 250 (Male- 150, Female-100).
28. Pulse polio immunization programme at Netasji Basti, Dhakuria, Kolkata dated 29<sup>th</sup> February, 2017. No. of participants – 25 (Male- 15, Female-10), beneficiaries- 48 (Male-26, Female-22).
29. Mosquito nets and clothes distribution programme at Moipith, Raidighi, Sundarban, South 24 Paraganas, dated 18<sup>th</sup> February, 2017. No. of participants – 25 (Male-15, Female-10), beneficiaries- 100 (Male- 29, Female-71).
30. Cleaning and beautification programme at New Boy's Hostel, Jadavpur University Main Campus, dated 19<sup>th</sup> February, 2017. No. of participants – 50 (Male- 50).
31. Youth leadership and community development programme at New Seminar Room, Department of civil Engineering, Jadavpur University, dated 24<sup>th</sup> to 28<sup>th</sup> February, 2017. No. of participants – 40 (Male- 21, Female-19).
32. Vivek Chetana Utsav at Ashutosh Hall, University of Calcutta, dated 2<sup>nd</sup> March, 2017. No. of participants – 17 (Male- 12, Female-5).
33. Health check up & awareness programme at Bhai Bhai Sangha, Paner Ara, Ward no.- 125, Thakurpukur, Kolkata-700063, dated 5<sup>th</sup> March, 2017. No. of participants – 30 (Male- 15, Female-15), beneficiaries- 263 (Male- 112, Female-151).
34. Observance of National Science Day at Kalikapur, Ward no.- 106, Kolkata- 700099, dated 5<sup>th</sup> March, 2017. No. of participants – 50 (Male- 30 Female-20), beneficiaries- 250 (Male- 150, Female-100).
35. Rally for save water campaign at Jadavpur University main campus, dated 22<sup>nd</sup> March, 2017. No. of participants – 100 (Male- 55, Female-45).
36. Blood donation camp and free eye check-up programme at Jadavpur University Salt lake Campus, dated 28<sup>th</sup> March, 2017. No. of participants – 46 (Male-24, Female- 22), blood donors-100 (Male- 92, Female-8).
37. Awareness on physical and mental health for senior citizen and cultural programme at Old age home, Panchasayar, Kolkata, dated 29<sup>th</sup> March, 2017. No. of participants – 30 (Male- 16 Female- 14), beneficiaries- 50 (Male- 30, Female- 200).

### **Annual Report 2016-17**

38. Educational kits distribution programme for slum youth at Swami Vivekananda Seba Samity, Arapanch, Sonarpur, Kolkata-700150, dated 30<sup>th</sup> March, 2017. No. of participants – 20 (Male- 15, Female-5), beneficiaries- 60 (Male- 37, Female-23).
39. Blood donation camp at Department of Physical Education, Jadavpur University, dated 31<sup>st</sup> March, 2017. No. of participants – 35 (Male-20, Female- 15), blood donors-100 (Male-94, Female-6).

#### **NSS Unit of J.D. Birla Institute (Affiliated to Jadavpur University)**

##### **i) Annual Sports** (19<sup>th</sup> January 2017)

The Annual Sports of the Institute was organized in collaboration with its NSS-wing and Helping Hands. Special track events were held to encourage inclusive participation of for the underprivileged and deprived children to participate in sporting activities. The event was held at the Mohun Bagan Athletic Ground and children from NGOs like CINI, Save the Children and Hope Foundation. Twenty children from Ektara were trained by the students of JDBI and they put-up a special drill performance at the inaugural ceremony.

##### **ii) International Women's Day** (8<sup>th</sup> March 2017)

The Institute believes in empowering young women in various walks of life. The Department of Human Development of the Institute thus organized a silent walk on the theme “Be Bold for Change” to commemorate International Women's Day. Over five hundred students from the JDBI, ILEAD, Loreto College and NGOs like Karma Kutir and Sanlaap participated in the six kilometer walk from Rabindra Sarobar to the college. The students carried posters with powerful quotes on the theme of the day during the walk.

Ms. Sudeshna Roy - director, actor and writer was the Chief Guest for the occasion. The walk was sponsored by Austin Plywood, while Style Partner sponsored the T-shirts. The event was hosted in association with T2. Other Media partners were Press Trust of India (PTI), Aaj Tak, India Today, Jansatta, Dainik Prayag, Sanmarg and The Echo of India.

##### **iii) Awareness on Women's Issues, Watching Movie, *Pink*** (29<sup>th</sup> of September 2016)

With an aim to empower and educate girls about the need for an egalitarian society, the college arranged for a special screening of 'Pink', a contemporary youth-centric film based on the choices allowed to young women and directed by Aniruddha Roy Chowdhury. The film sledgehammers the message that when a woman says 'no', she means 'no'. It underlines a woman's freedom to handle her own sexuality in her own way. Over one thousand students and staff members watched the film together at INOX multiplex at the Quest mall.

##### **iv) NSS Camp** (24<sup>th</sup> to 31<sup>st</sup> March 2017)

NSS Cell of JDBI (Commerce Department) organized a seven day long camp, 'Education and Recreation' in association with Sahay Children International. The NSS volunteers visited the slums at Ward No. 28 at Narkeldanga North Road to spread awareness on effective communication through the English language. Volunteers also made the children of the slums aware about 'safe' and 'unsafe' touch, benefits of exercise and demonstrated some easy self defence techniques. To engage children and enhance their creativity, volunteers also taught them how to make paper bags. Sit and draw competitions were organized too. About one hundred and twenty seven children in the age group of 8 to 15 from the slums years participated in this programme.

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- v) Anganwadi** (24<sup>th</sup> September 2016)  
2<sup>nd</sup> year Human Development students conducted an awareness programmes on dengue, malaria, worm infestation and diarrhoea at Anganwadi (Ward No. 2 under Tallah Friend's Association) under the ICDS project, Government of West Bengal. Through skits they also demonstrated the importance of cleanliness and discussed social issues for pregnant and lactating women.
- vi) Amitie Trust** (24<sup>th</sup> September 2016)  
M.Sc students of Human Development department visited Amitie Trust, an organization working for the development of transgender communities under the Government of West Bengal to closely interact with members of the trust.
- vii) Blind Boy's Academy** (24<sup>th</sup> September 2016)  
3<sup>rd</sup> year Human Development students visited Ramakrishna Mission Blind Boys Academy at Narendrapur to see the regional braille press and sound recording room. They conducted a workshop on etiquettes for young children of the academy.
- viii) Ektara** (5<sup>th</sup> and 19<sup>th</sup> March 2016)  
1<sup>st</sup> year Human Development students conducted a BMI check-up and also put-up a skit on the 'Importance of Milk' for the children of Ektara Foundation, an NGO working on the right to free and compulsory education for children in the slum areas around Topsia and Tiljala. A fun activity on identification of fruits and vegetables was also conducted.
- ix) Hamari Muskan** (12<sup>th</sup> November 2016)  
2<sup>nd</sup> year Human Development students organized a puppet show, 'From Education to Employment' and a skit, 'Health and Hygiene' for the inmates of Hamari Muskaan, an anti-trafficking organization working in the red light area of Bowbazar, Kolkata.
- x) Help Age** (17<sup>th</sup> September 2016)  
M.Sc students of Human Development department organized an awareness programme on 'Healthy eating for healthy aging' for the elderly at Help Age, a leading NGO working with and for the disadvantaged elderly section of the society. Volunteers conducted counseling sessions for the old women, discussed the diseases they were suffering from and helped them to understand the nutritious food that they should eat. The nutritional status of the inmates was also assessed using the MNA tool.
- xi) Mridul Foundation** (17<sup>th</sup> September 2016)  
3<sup>rd</sup> year Human Development students visited Mridul Foundation, a Rehabilitation Centre that aims to reach out to children and adults with special needs. The volunteers interacted with the children, their parents and also the therapists on various issues.
- xii) Mukti Rehabilitation** (17<sup>th</sup> September 2016)  
M.Sc students of Human Development department visited Mukti Rehabilitation Centre to understand the ill effect of drug addiction and the various intervention programs available for de-addiction. Students also visited the Basha Mukti Rehabilitation for children.
- xiii) Promoting Traditional Indian Art and Craft, Recital through Phad Paintings of Rajasthan** (19<sup>th</sup> February 2017)  
With an attempt to popularize this lesser known art-form of Rajasthan which is almost on a state of extinction the Department of Textile Science Clothing and Fashion Studies invited the artists from the state of Rajasthan with assistance from the Jaipur Virasat Foundation to put up a show on Pabuji Phads during their Graduating Fashion Show 2017.



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The Jaipur Virasat Foundation is a charitable trust since 2002 and is in synergy with UNESCO-Charters on the conservation of tangible and intangible heritage and preservation of cultural diversity. It works with and for traditional artists in Rajasthan and has pioneered a holistic, culture-based and cross-sector approach to livelihood generation through its various activities, events, advocacy forums and networks, along with employing specialist skills and best practices.

Phad or pars are scroll paintings on canvas. They depict the heroic deeds of folk heroes revered as gods, scene by scene. They are made in vivid hues at Shahpura, a princely state in the Bhilwara district of Rajasthan.

#### **xiv) Blood Donation Camp (3<sup>rd</sup> May 2017)**

The NSS-Cell of the college - a wing under Jadavpur University and Helping Hands - the Social Activity Club of the college organized a blood donation, camp in association with Saroj Gupta Cancer Centre & Research Institute (Thakurpukur) and Rotaract Club (Jadavpur). Students and faculty members donated seventy six units of blood.

#### **xv) Eye and Dental Check-up Camps (3<sup>rd</sup> May 2017)**

The NSS-Cell of the college - a wing under Jadavpur University and Helping Hands - the Social Activity Club of the college organized a eye check-up and camp in association with GKB Lens Pvt. Ltd and a dental check-up camp in association with Aesthetica Dental Super Specialty Clinic. Student and staff availed of the testing facilities provided.

#### **xvi) Use of Recycled Waste**

Encouraging students to reuse waste materials and develop a vision for an eco-friendly society, volunteers of the NSS-wing and members of the Nature Club of the Institute collected used sprite plastic bottles and crafted them into pot holders for vertical gardens in the college campus.

Students also make portraits to decorate their labs using recycle e-waste comprising of discarded mother boards, computer discs, keyboard buttons, etc.

### **NSS Unit of Institute of Business Management, Jadavpur University- 2016-2017**

#### **Regular Activities:**

1. Institute of Business Management in collaboration with NSS, JU organized a **Visit of Orphan Home** in March 19, 2017. The volunteers visited "Child Care Home" at Sukantanagr. In the home there were 27 girls among them 7 were mentally or physically retarded. The objectives of such visit were to make the students aware about the socio economic condition and potentialities of these girls. To understand the need of the volunteers for their services. Also to overcome the barrier of class differences and development of self monitoring capacity in a different situation. On that day volunteers arranged and enjoyed lunch with the inmates of the home. 25 volunteers were accompanied by Dr Asit Datta, Director of the institute and Dr Rita Basu.
2. On 30<sup>th</sup> March seminar on "**Youth and Human Values in Modern Society**" was organized at Indumati Sabhagriha of the institute. The first speaker, Ms Leena Bardhan, Secretary of Nobel Mission (a NGO for the deprived people) through her informative speech encouraged volunteers about the scope and pleasure for social work. The second and the last speaker was Mr. Ujjwal Ray of Kolkata Police. Mr. Ray through power point presented the Summit of Mt Everest Expedition. His ornamental speech and explanation was an example of motivation, leadership and team work. Our 106 student volunteers and 30 other members participated in this programme.

### **Special Camp**

1. A special camp on “**Students Awareness on Social Activities in Deprived Areas**” was organized at Tiljola, near Park Circus, during 20<sup>th</sup> to 25<sup>th</sup> March 2017 in collaboration with Society for Community Interventions and Research (SCIR). With the support and guidance of the members – our 50 student volunteers were participated in the following activities.
  - Acted as facilitators for the coaching centre for drop out (deprived girls) students, for class VI to X standard
  - Administrative guidance to the vocational training centre for women empowerment. of financially handicapped local ladies
  - Monitored basic course on computers for the local economically backward youth within the age group of 14 to 25 having minimum 8<sup>th</sup> standard education
  - Adult Education for elderly ladies
  - Served for their library
  - Aware local slum people for proper utilization.



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**NEW PROJECTS**  
**April 2016 - March 2017**

SlNo.	Funding Agency	Title	Co-Ordinator	Starting Date	Cost	Sanc. No.	Status
1	ADL	Project for Development of Test Protocol Standardization and Method Validation of ADLIV Capsules and Individual Plant Extracts	Pulak Kr. Mukherjee	24-01-2017	499450	HPK/Km	26-12-2016
2	CSIR	Autophagy and Aging Functional and Physical Association of Human Premature Aging Syndrome Protein Wrn	Parimal Karmakar	26-07-2016	1980000	EMR/2016/001151	14-03-2017
3	CSIR	Uncovering Nuclear Machinery Involved in the Turnover of Ribosomal and Other Non-Coding RNAs in Saccharomyces Cerevisiae	Biswadip Das	1/6/2016	3996000	No.38(1427)/16/EMR-II	17-05-2016
4	CSIR	Water Wave Scattering by Obstacles of Various Geometrical Configurations	Sudeshna Banerjee	1/6/2016	1646000	25(0253)/16/EMR-II	20-05-2016
5	CSIR	Collodial and Solution Behaviour of Carbohydrate Based Polymer in Presence of Surfactant, Electrolyte and Non-Electrolyte Including Solvent	Soumen Ghosh	1/6/2016	1896000	01(2853)/16/EMR-II	12/5/2016
6	CSIR	Strategies for Dereplication of Novel Anti Diabetic Leads From Myrica Esculenta : A Skkim Himalayan Plant	Saikat Dewanjee	1/12/2016	2296000	02(275)/16/EMR-II	6/12/2016
7	CSIR	Time Dependent Nonlinear Structure in Plasmas in the Frame Work of Lagrangian Fluid Description	Monoranjan Khan	7/4/2017	990000	No.03(1384)/16/EMR-II	1/12/2016
8	DAE	Physical Behaviour of Natural Silicates and Oxides and its Implication in Environmental Studies: A Computational Approach	Nibir Mondal	14-07-2016	3773850	36(2)/14/25/2016-BRNS/36025	7/7/2016
9	DBT	Chemical Profiling of Joha and Black rice of NER for Nutritional Nutraceutical Parameters and Aromatic Compounds	Subhash Ch. Mondal	27-10-2016	3896000	DBT-NER/AGRI/29/2015( Group-2)	27-10-2016
10	DBT	Studies on the Interaction of Antimicrobial Peptide with Phospholipid Membranes	Sanat Karmakar	29-06-2016	4305000	BT/PR8475/BRB/10/1248/2013	21-06-2016
11	DFPI	Studies on Y Irradiation of Lutein and Serotonin Melatonin Rich Agro Commodities for Extension of Shelf Lives of the Produces and Design of Novel Therapeutic Food Supplements Using the Irradiated Produces	Paramita Bhattacharjee	16-09-2016	3750000	1351/FPI&H/9R(H)/-1/2016	16-09-2016
12	DST	Neurocognitive Physics Approach to Study Music Induced Emotion Using Biocensors	Dipak Ghosh	11/2/2016	611890	860(Sanc.)/ST/P/S&T/4G-3/2013	15-01-2016
13	DST	Copper Complexes in Biomimetics and Oxidation Catalysis	Mahammad Ali	22-01-2016	596800	809(Sanc.)/ST/P/S&T/4G-9/2014	4/1/2016
14	DST	Design and Development of Chemical Molecules to Protect Radiation Chemical and Photo Induced DNA Damage	Kalyan Kr. Mukherjee	4/3/2016	711800	849(Sanc.)/ST/P/S&T/9G-31/2013	11/1/2016

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SI No.	Funding Agency	Title	Co-Ordinator	Starting Date	Cost	Sanc. No.	Status
15	DST	Chemistry of Rhenium Incorporating Polydentate Lendends Synthesis Characterization Optical Properties and DFT Studies	Kajal K. Rajak	22-01-2016	786300	808(Sanc.)/ST/P/S&T/4G-5/2014	4/1/2016
16	DST	Platinum Metal-Based Light-Harvesting Assemblies with Ployheterocyclic Ligands:Designing of Functional Materials	Sujoy Baitalik	30-01-2016	3230000	EMR/2015/001163	18-01-2016
17	DST	Photophysical Investigations of the Effects of Nano-Clay Minerals on Artificial Biomembrane Prepared by Langmuir-Blodgett Method	Pabitra Kumar Paul	7/3/2016	2700000	SB/EMEQ-142/2014	8/2/2016
18	DST	Novel Cyclometalated Complexes of Platinum Group Metals:Structure, Electroluminescence and Catalytic Aspects	Tapan Kr Mondal	21-01-2016	1987250	YSS/2015/001533	7/1/2016
19	DST	Study of Emplacement and Evolution of Granitic Rocks in Transpressional Ductile Shear Zone From Parts of the Western Margin of Delhi Fold Belt,Rajasthan	Sadhana Mahato	12/2/2016	800000	EMR/2015/000204	22-01-2016
20	DST	Potential Therapeutic use,Implication and Comparative Study of Nano Curcumin Nicotine Induced Physiochemical Stress in Protein Malnourished Female Population	Krishna Chattopadhyay	3/5/2016	2360800	DST/KIRAN/SoRF-PM/013/2015(G)	9/5/2016
21	DST	Synthesis and Characterization of Nano Structured Silicon Nitride	Sampriya Narayanan	5/2/2016	338800	NSAI/SoRF-I/2015-16/10	20-01-2016
22	DST	In Vitro and In Vivo Screening of Phytoconstituent Against Streptozotocine Induced Metabiloc Disorder	Pallab Kanti Halder	23-11-2016	1463000	673(Sans.)/ST/P/S&T/15G-17/15	9/11/2016
23	DST	Tailored Nanostructure and Nanocomposite Oxide Materials for Steam and Dry Reforming of Methane	Arup Gayen	18-01-2017	6115230	EMR/2016/001811	26-12-2016
24	DST	Unusual Fluorescence Anisotropies of Probes in Protic Solvents a New Horizon Towards Salvation	Nitin Chattopadhyay	23-12-2016	4774000	EMR/2016/001087	25-09-2016
25	DST	Cyclic Plastic Deformation Behaviour of 304LN Austenitic Stainless Steel Room Temperature to 550deg C	Amrita Kundu	9/9/2016	3951675	ECR/2016/000260	30-08-2016
26	DST	Fabric Analysis and Tectonic Stress Determination in the Rocks of Chitradurga region Implications for Upper Crustal Fluid Flow	Tridip Mondal	1/2/2017	1068200	ECR/2015/000079	13-01-2017
27	DST	Performance Modeling of a Combined System of Phycoremediation with a Fixed Film Bioreactor for the Treatment of Dairy Industry Waste Water	Sunita Adhikari	1/10/2016	4292440	ECR/2016/000688	29-09-2016
28	DST	Emergent Dynamics in Ecological Networks Spreading of Disease and Its Control	Nandadulal Bairagi	6/2/2017	2070915	EMR/2016/001078	13-01-2017
29	DST	To Assess the Contribution of PTEN and its Post Translational Modulation in DNA Repair Sub Pathways	Parimal Karmakar	22-03-2017	4070000	EMR/2016/001151	14-03-2017

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SI No.	Funding Agency	Title	Co-Ordinator	Starting Date	Cost	Sanc. No.	Status
30	DST	Theoretical Study on Dark Matter Gravastar and Wormhole Spacetimes	Farook Rahaman	15-03-2017	803000	EMR/2016/000193	23-02-2017
31	DST	Strategic Assessment of Traditional Bandel Cheese and its Production for Economic Development of Local People	Debabrata Bera	27-12-2016	1857000	792(Sans)/ST/P/S&T/1G-16/2016	6/12/2016
32	DST	Reduced Grapheme Oxide Sulfonated Polybenzimidazole Nano Composite for Fuel Cell Electrolyte and Supercapacitor Application	Priyanka Ghosh	31-12-2016	1850000	SR/WOS-A/ET-40/2016(G)	28-12-2016
33	DST	Dst Fist Programme	Samaresh Bhattacharyya	4/7/2016	49000000	SR/FST/CSII-032/2014(G)	31-05-2016
34	MNRE	A Wind Solar Hybrid Microgeneration Scheme Suitable For Wide Speed Range And Grid Isolated Remote Applications	Debasish Chatterjee	17-02-2017	1573000	24/22/2016-S)	1/3/2017
35	RSSD	A Study of Anti Hyperglycemic properties of Gymnedenia Orchidis Lindl of Orchdaceae Family	Brajadulal Chattopadhyay	1/1/2017	975000	RSSDI/HQ/Grants/2016/470	26-12-2016
36	UGC	Investigations of Crystallographic Structure And Structural Transition For Perovskite BaSrCoFeO Ceramic	Abhijit Chanda	17-03-2017	135000	CSr-IC-BL-89/CRS-206/16-17/910	17-11-2016
[Status "R" indicates Running]							

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**OFFICE OF THE DEAN OF STUDENTS**

Phone : + 91- 33 - 2414-6188  
Int. : 2457-2279/2386  
Dean of Students : Dr. Rajat Ray  
E-mail : deanstudents@jadavpuruniversity.in

**HOSTELS**

**Jadavpur University** is not a residential university. However, we try our best to provide accommodation to needy students from areas outside Kolkata or from other parts of the country.

**No. of Hostels :**

<b>(for Main Campus)</b>	<b>Total No:</b>
• Boys Hostel (UG) – 04 Nos.	600 Boarders
• Boys Hostel (PG) – 03 Nos.	225 Boarders
• Boys Hostel (RS cum PG) – 01 No.	80 Boarders
• G.C. Sen Memorial Chhatrabas– 01 No. (Boys'Hostel) (Physical Education)	105 Boarders
• Women Hostel – 03 No.	540 Boarders

**(for Salt Lake Campus)**

• Salt Lake Campus Hostel (Boys) – 01 No.	280 Boarders
• Salt Lake Campus Hostel (Girls) – 01 No.	70 Boarders

**Name of the Hostel Superintendent as on 31/3/2017 :**

<b>Hostel</b>	<b>Superintendent</b>
• A-1 Block Main Hostel	Sri. Tapan Jana
• A-2 Block Main Hostel	Sri. Tapan Jana
• B Block	Sri. Dipayan Datta
• C & D Block	Sri. Dipayan Datta
• New Block Hostel	Sri. Goutam Mukherjee
• Old P.G. Hostel	Sri. Goutam Mukherjee
• New P.G. cum R. S. Hostel	Dr. Tapan Ray
• New Boys Hostel	Dr. Tapan Ray
• G. C. Sen Memorial Hostel	Dr. Tapan Ray (Officiating)
• Women Hostel -1	Smt. Aparna Kar Chowdhury
• Women Hostel - 2	Smt. Gulsenara Khatun
• Women Hostel – 3	Smt. Keya Roy
• Salt Lake Campus Hostel(Boys)	Sri. Shibsankar Bhunia Sri. Pradip Chakraborty
• Salt Lake Campus Hostel(Girls)	Smt. Ashima Das Prof. Runu Bannerjee(Ray) (Part-Time)

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**FACILITIES AVAILABLE AT EACH HOSTEL:**

# T.T. Room, # Common Room, # Canteen, # Magazine & Newspapers, # Play Ground, # Television, # Visitors Room, # Security Arrangement, # Telephone, # Internet (Partial), # K.M.C. Drinking Water # Water Cooler cum Purifier .

• **L.P.G. as Cooking Fuel at hostel-kitchens:**

All the kitchens of the Jadavpur University Hostels have been equipped with Liquid Petroleum Gas (on subsidized rate) as cooking-fuel. So the cooking at the hostel has become very easy, instantaneous, hygienic, controlled with less time/effect in respect to earlier system (coal).

**\*\*Number of students applied for hostels and students allotted hostel seats in the year 2016-2017**

**U. G. (FRESHERS)**

Category	Applied	Allotted
Boys	280	202
Girls	238	75

**U. G. (NON-FRESHERS)**

Category	Applied	Allotted
Boys	28	28
Girls	36	24

**P. G. (EXTERNAL)**

Category	Applied	Allotted
Boys	125	52
Girls	90	40

**P. G. (INTERNAL)**

Category	Applied	Allotted
Boys	30	30
Girls	52	52

**CONCESSION IN FEES:**

The concession in fees, in terms of full and half-free studentship, are awarded to needy students of the day – courses as well as evening courses (except Engg. evening students) on the recommendation of the University constituted Committee. After due notification by the Dean of Students, application forms, are issued at the beginning of the session, from the Office of the Dean of Students.

- Following no. of students have been granted free-studentship in due year 2016-2017.

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**STATEMENT ON FREESHIP FOR THE SESSION 2016-2017**

	Total App.	Full Free	Half Free	Total No. of Beneficiaries
<b>ARTS</b>				
1. Bengali	82	64	01	65
2. Economics	02	02	-	02
3. Education	84	29	29	58
4. History	20	14	02	16
5. International Relations	25	22	-	22
6. Library Science & Info.	26	16	07	23
7. Philosophy	74	54	-	54
8. Physical Education	73	20	24	44
9. Sanskrit	149	70	38	108
10. Sociology	08	05	01	06
11. Linguistics	01	01	-	01
<b>SCIENCE</b>				
1. Chemistry	21	12	01	13
2. Geological Sciences	02	-	-	-
3. Mathematics	52	32	-	32
4. Physics	35	26	04	30
<b>ENGG. &amp; TECH.</b>				
1. Adult Continuing	20	-	06	06
2. Architecture	02	02	-	02
3. Chemical Engg.	18	10	-	10
4. Civil Engg.	37	21	02	23
5. Comp. Sc. & Engg.	27	20	03	23
6. Electrical Engg.	21	13	-	13
7. E.T.C.E	07	04	-	04
8. F.T.B.E.	09	05	01	06
9. Mechanical Engg.	52	28	03	31
10. Metallurgical Engg.	09	02	02	04
11. Pharmaceutical Engg.	29	20	02	22
12. Production Engg.	13	08	-	08
<b>ENGG. &amp; TECH.(Salt Lake Campus)</b>				
1. Construction Engg.	30	15	11	26
2. Information Technology	35	05	27	32
3. Instrumentation Engg.	25	24	-	24
4. Printing Engg.	12	10	-	10
5. Power Engg.	25	17	03	20

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**Free-Studentship Allotment -**

(SC/ST/OBC/PH/ Minorities = 186  
General Students = 272  
Grand Total = 458 students)

• **FINANCIAL ASSISTANCE:**

One time financial assistance has been given from University's Fund to the needy students for their continuity and effective study at Jadavpur University.

**ARTS**

52 students received financial assistance @Rs. 2000/- each.  
60 students received financial assistance @Rs.3000/- each.  
11 students received financial assistance @Rs.5000/- each.

**SCIENCE**

01 students received financial assistance @Rs. 2000/- each.  
05 students received financial assistance @Rs.3000/- each.

**ENGG. & TECH.**

03 Students received financial assistance @Rs.2000/- each.  
10 Students received financial assistance @Rs.3000/- each.  
01 Student received financial assistance @Rs.6000/- each.

• **SHALINI FELLOWSHIP:**

The Udayan Shalini Fellowship for girls under the organization 'Udayan Care' provides scholarship to the financially poor but meritorious girls for their up-liftment. The fellowship is given directly to the Students concerned by the organisation and the Office of the Dean of Students work as Co-ordinating Centre for Jadavpur University students. In the academic year 2016-17, **Sixteen (16)** girl students of our University are enjoying this fellowship till they continue their study.

- In addition to granting free-ship and awarding Endowment Scholarship / Other Scholarship, few students were financially helped by the University for the Continuity of their study as special cases.

**STUDENTS' UNION & ELECTION OF OFFICE BEARERS**

As it is a unitary University with its teaching Departments, grouped into the three faculties of Arts, Science & Engineering & Technology, the university has three students' unions for the three faculties.

**The Office Bearers of the three Students' Union on and from 01-02-2017.**

**ARTS FACULTY STUDENTS UNION**

**CHAIRPERSON**

SOMASHREE CHOUDHURY,  
INTERNATIONAL RELATIONS/B.A.-III/001400701060

**GENERAL SECRETARY**

DEBRAJ DEBNATH,  
BENGALI/B.A.-II/001500101012



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**ASSISTANT GENERAL SECRETARY (DAY)**

USHASI PAL,  
PHILOSOPHY/B.A.-II/001500901004

**ASSISTANT GENERAL SECRETARY (EVENING)**

TAMAL MALLA,  
SANSKRIT/M.A.-I/001601204041

**FACULTY OF ENGINEERING & TECHNOLOGY STUDENTS' UNION**

**CHAIRPERSON**

SOUGATA SINHA  
MECHANICAL ENGINEERING /B.E.-III/001411201060

**GENERAL SECRETARY**

AVIK DAS  
SCHOOL OF ENERGY SC. & TECH./M.TECH.-I/001630601014

**ASST. GENERAL SECRETARY (MAIN CAMPUS - DAY)**

ARUNASHIS MONDAL  
CIVIL ENGINEERING /B.E.-II/001510401017

**ASST. GENERAL SECRETARY (SALT LAKE CAMPUS)**

K. SRIDHAR  
CONSTRUCTION ENGINEERING /B.E.-III/001410601050

**ASST. GENERAL SECRETARY (MAIN CAMPUS - EVENING)**

SASWATA BANERJEE  
ELECTRICAL ENGINEERING/B.E.-II/001510803005

**SCIENCE FACULTY STUDENTS UNION**

**CHAIRPERSON**

AVIK DAS  
GEOLOGICAL SCIENCES/ M.SC.-I/001620402033

**GENERAL SECRETARY**

PUJA BARMAN  
PHYSICS/ B.SC.-II/001520701057

**ASSISTANT GENERAL SECRETARY (DAY)**

SOUMYADIP SEN  
CHEMISTRY/B.SC.-II/001520101061

**ASSISTANT GENERAL SECRETARY (EVENING)**

PAPI SARKAR  
PHYSICS/M.SC.-I/001620703024

**ANTI-RAGGING ACTIVITIES**

Jadavpur University has accepted all the directions / guideline issued by Hon'ble Supreme Court of India and regulatory bodies to eradicate ragging in the university campuses.

### **Annual Report 2016-17**

Jadavpur University is working intensively from the very beginning of issue of such directions in the year 1998. Following activities (in brief) were taken up in the year 2016-17 to stop ragging in the campuses –

#### **Actions taken for prevention of ragging in the year 2016-2017**

1. The Anti-Ragging Committee and Anti-Ragging Squads (Departmental and Hostels) have been re-constituted as per the latest circular of the UGC on the title “UGC Regulation on Curbing the Menace of Ragging in Higher Educational Institutions, 2009.”
2. There are thirty-six departmental Anti-Ragging Squads, thirteen Hostel Anti-Ragging Squads and two Common Area Anti-Ragging Squads covering both the campuses.
3. The first Anti-ragging Committee meeting with the members of newly constituted body held on 04-05-2016, for taking actions for the year 2016-17.
4. Anti-Ragging Committee Meeting was organized inside the hostel premises on 27-07-2016 at 05:00 P.M. in the Office of A1, A2, B and C&D Block, Main Hostel.
5. First phase of Anti-Ragging Posters & Banners have been displayed in the third week of June, 2016 to create awareness among the university community. Next phase of posterage was made in the month of July, 2016.
6. Issuance of ‘UGC Regulations on Curbing the Menace of Ragging in Higher Educational Institutions, 2009’ in the form of booklet, to all the Head of the Departments was made on June, 2016.
7. Issue of ‘UGC Regulations on Curbing the Menace of Ragging in Higher Educational Institutions, 2009’ in the form of booklet, to all the first year students (2016-17) of the University was made.
8. Circular has been issued by the Registrar of the University on 22-07-2016 about the constitution of the Anti-Ragging Committee and the Departmental & Hostel Anti-Ragging Squads with the names of the Anti-Ragging Committee members and their telephone numbers, wherein the responsibility and accountability of the university community towards curbing the menace of ragging was stated.
9. Registrar of the University has issued notice about the completion of the Freshers’ Welcome Programme within 15 days from the commencement (1<sup>st</sup> Semester) of UG (Freshers) classes and other allied items.
10. Letters have been issued to the affiliated colleges of the University for the Prevention and complete eradication of Ragging, if any, from the Institution with necessary documents.
11. Meeting was organized with all the hostels Anti-Ragging Squad Members for designing general step to stop ragging at the hostel premises at Main Hostel, Jadavpur Campus and Salt Lake Campus.
12. Interactive workshops on the issue of ragging was organized in association with Save (a NGO for Anti-Ragging Activities) held on 16.11.2016 at the university.
13. Interactive Workshop on the issue of Drug Abuse was conducted in association with Narcotics Department, Govt. of India on 25.10.2016 to reduce the probability of incidence of ragging connected with drug addiction.
14. Dean of Students/University Authority addressed all the 1<sup>st</sup> Year students under the Faculty of Arts, Science and Engg. & Technology separately on the issue of Anti-Ragging measures during orientation programme held on the day of commencement of the classes.
15. Departmental Anti-Ragging Squads took necessary action on the issue of ragging at their respective department, under the chairmanship of Departmental Head.

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16. Four numbers of big flex banners containing the names of Anti-Ragging Committee Members were posted in the month of June, 2016. Few more Anti-Ragging Banners, provided by Department of Higher Education, Govt. of West Bengal, were posted at the different places of the university campus.
17. Till date one complaint on ragging has been lodged and after due enquiry no one found guilty.

**STUDENTS FOUND GUILTY OF RAGGING:** No Students found guilty of ragging as per the records.

**OFFICE OF THE DIRECTOR OF PHYSICAL INSTRUCTION  
SPORTS BOARD**

Int : 2457-2309

Director of Physical Instruction : Dr. Aparup Konar

E-mail : dir.phy.ins@jadavpuruniversity.in

**Jadavpur University Sports Achievements & Participation 2016-17:**

**A. East Zone / Zonal Inter – University Sports Tournament:**

<b>Sl Game / Event</b>	<b>Results</b>
1 Basketball (W)	Participated
2 Basketball (M)	Participated
3 Badminton (W)	Participated
4 Badminton (M)	Participated
5 Chess (M&W)	<b>4<sup>th</sup> Position</b>
6 Football (M)	Participated
7 Cricket (M)	Participated
8 Kho-Kho (M)	Participated
9 Kho-Kho (W)	Participated
10 Table Tennis (W)	<b>3<sup>rd</sup> Position</b>
11 Table Tennis (M)	Participated
12 Volleyball (M)	Participated

**B. All India/Inter Zonal Inter – University Sports Tournament:**

<b>Sl</b>	<b>Game / Event</b>	<b>Results</b>
1	Diving (W)	Participated
2	Chess (M&W)	Participated

### **Annual Report 2016-17**

3	American Football (M)	Participated
4	Taekwondo (W)	Participated
5	Taekwondo (M)	Participated
6	Table Tennis (W)	Participated
7	Yoga (M&W)	<i>Team Rank:</i> <b>Women - 35/98</b> <b>Men - 51/100</b>
8	Netball (M)	Participated
9	Ball Badminton (M)	Participated
10	Riffle Shooting (M)	Participated
11	Rowing (W)	Participated

### **C. Sports Performance Other Than Inter - University 2016-17:**

#### **S1 Name of the Competition / Tournament Results**

- 1 2<sup>nd</sup> BRC Inter College Rowing Championship 2017, Women: **1 Gold medal in Indoor Rowing, 2 Silver medals in Double Scull, 4 Bronze medals in Fours**
- 2 Inter College Sports Festival: Xceleration 16, organized by St. Xavier's College  
Women Table Tennis team: **Winners** Men Table Tennis team: **Runners Up**
- 3 Invitation Blind Cricket Match 2017 organized by Rabindra Bharati University Men: **Runners Up**
- 4 Inter College Invitation Table Tennis Tournament 2016 organized by Jadavpur University Sports Board (JUSB), Women: **Winners** Men: **Runners Up**
- 5 Reliance Foundation Youth Sports Inter College Football Tournament 2016 jointly hosted by JUSB as Official Venue Partner, Men: Participated
- 6 Inter University Inter College T-20 Cricket Tournament 2016-17 organized by JU & CU under the aegis of CAB, Men: 2<sup>nd</sup> Round
- 7 Inter University T-20 Cricket Tournament 2016-17 organized by NBU under the aegis of CAB, Men: **Quarter Final**
- 8 Ajoy Ghosh Memorial Trophy Cricket Tournament 2016-17 organized by BU & IIT, Kharagpur under the aegis of CAB, Men: **Semi Final**
- 9 P. Sen Memorial Invitation Trophy Cricket Tournament 2016-17 organized by CAB Men: **Quarter Final** (Two JU Cricket players represented the Combined University XI team)

### **D. Co-curricular Activities 2016-17:**

**Karate Coaching Programme:** Jadavpur University Karate coaching programme is running successfully under supervision of Karate Instructor twice in a week at OAT for all the students including girls of JU with the aim to promote self defense activity in the university.

**Multi-Gym & Fitness Training Centre:** As a University with a vision, Sports Board encourages activities like Multi-Gym & Fitness Training with Weight & Power Lifting for the development and promotion of health & sports performance for all the students under

### **Annual Report 2016-17**

the guidance of Gym Trainers and the University Gymnasium has opened for Ladies in the morning session every Monday to Friday at the Main Campus under the auspices of JU Sports Board.

#### **Project Undertaken / Publication / Paper Presentation / Course Participated by:**

Dr. Aparup Konar: Director of Physical Instruction

#### **Project Undertaken:**

**Title:** *“Assessment of Training and Detraining Effect in Modulating the Specific Immune Response”*. Extension Activity under UGC XII Plan General Development Assistance, Jadavpur University, Kolkata, West Bengal, January, 2017.

#### **Paper Published:**

1. *“Exercise Induced T cell Variation in an Air Polluted Area: A Case Study”*, International Journal of Physical Education, Sports and Health, April 2016; 3(3): 618-621, P-ISSN:2394-1685, E-ISSN: 2394-1693, Khel Journal, Impact Factor (ISRA): 4.69.
2. *“An Evaluation of eight weeks Training with Incorporation of new Strategy and Tactics on Playing ability of CBSE School girls of Kho-Kho discipline”*, International Journal of Yogic, Human Movement and Sports Sciences, July-Dec. 2016; Vol-1, Issue-1, Page No. 86-89, ISSN: 2456-4419, Impact Factor: RJIF 5.18.
3. *“Improvement in Bowling Accuracy of Spin Bowlers to Achieve the Perfect Bowling Action”* Indian Journal of Physical Education and Allied Sciences, Jan. to June, 2017; Vol-2, No.2, Half Yearly, Page No. 619-623, ISSN: 2359-6895, Department of Physical Education, Kakatiya Medical College, Warangal, Telangana, India.

#### **Conference Proceedings:**

1. *“Popularization and Commercialization of University Sports in India”*, Proceedings of 2 Days International Seminar on New Frontiers of Research in Physical Education and Sports Science” 07-08 December, 2016, Department of Physical Education and Sports Science, Jessore University of Science and Technology (JUST), Bangladesh.

#### **Paper Presented:**

1. *“Popularization and Commercialization of University Sports in India”*, 2 Days International Seminar on New Frontiers of Research in Physical Education and Sports Science” 07-08 December, 2016, Department of Physical Education and Sports Science, Jessore University of Science and Technology (JUST), Jessore, Bangladesh.
2. *“Improvement in Bowling Accuracy of Spin Bowlers to Achieve the Perfect Bowling Action”* International Conference on Physical Education, Sports & Fitness (ICPESF-2017), 27-29 January 2017, Department of Physical Education, Kakatiya Medical College, Warangal, Telangana, India.

#### **Workshop/ Training Course Participated:**

1. *“One day Workshop on Talent Identification”*, 26<sup>th</sup> January, 2017, organized by Department of Physical Education, Kakatiya Medical College, Warangal, Telangana, India.
2. *“One day Workshop on Individual Fitness”*, 26<sup>th</sup> January, 2017, organized by Department of Physical Education, Kakatiya Medical College, Warangal, Telangana, India.
3. *“Workshop on Data Analysis by using SPSS”*, 4<sup>th</sup> and 5<sup>th</sup> February, 2017, jointly organized by Department of Physical Education, Vinaya Bhavana, Visva Bharati,

### **Annual Report 2016-17**

Santiniketan and SPSS South Asia Private Limited, Bangalore.

4. **“5 days Awareness Training Programme on Environmental Hazards of Electronic Waste and its Management”**, 16-20 January, 2017, organized by NIELIT, Ministry of Electronics and Information Technology, Govt. of India.
5. **“Two days Workshop on Let’s CHEER”** for the Officers’ of the University under TEQIP Phase II Programme, 24-25 March, 2017 at IBIZA, 24 Pgs(S).

## **SC/ST Cell**

INT : 2457- 2580/2632

Asst. Registrar : Dr. Kaniska Sarkar

(JU Main Campus)

Scheduled Caste and Scheduled Tribes have been identified as the two most backward groups of Indian Society. They include all such castes, races or tribes which have been declared as scheduled castes and scheduled tribes by the Constitution of India under the provisions of Article 341 & 342. According to Census 2011 population of Scheduled Castes at 16.6 per cent and Scheduled Tribes at 8.6 per cent, together are forming a quarter of the total population in India.

Jadavpur University has established a SC/ST Cell in 2007 for the benefit of the University students and employees belonging to SC/ST community. Its function is also to help the students and employees belonging to SC/ST categories to integrate with the mainstream of the University community and to remove difficulties which they may be experiencing. The cell was constituted as a measure of strengthening the implementation machinery for planning, evaluation and monitoring of the policies of the Govt. of India as well as Govt. of West Bengal in the field of higher education and also the programmes of the University Grants Commission with the objective to improve the life style of SC/ST candidates and to lift up them to the general level as compared to the other communities. The cell is monitoring the reservation policies a laid down time to time by the Govt. of West Bengal. It also provides information on fellowship and other activates to the SC/ST candidates. The SC/ST Cell has taken up problems of the SC/ST students and employees with the university authorities and has solved some of them amicably. The cell has been a user friendly counsellor to all SC/ST employees and students. The cell is collecting and furnishing statistical date and other information which the Govt. Of India and UGC as well as other agencies like MHRD, SC/ST welfare and National Commission for SC/ST may seek pertaining to the welfare of the SC/STs allied matters. This cell also replies to the Parliamentary questions on reservation from Lok Sabha and Rajya Sabha in different time.



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This year the University has reconstituted the administrative committee comprising the following persons for the purpose of monitoring the cell smoothly: -

Prof. Suranjan Das, Hon'ble Vice Chancellor, JU	CHAIRMAN.
Prof. Rup Kumar Barman, Department of History, JU	MEMBER, LIASON OFFICER
HoD. Sociology, JU	MEMBER.
HoD. IEE, JU	MEMBER.
Dr. Sujit Kumar Mondal, Department of Comparative Literature, JU	MEMBER.
Dr. Bipan Tudu, Department of IEE, JU	MEMBER.
Prof. Jnan Prakash Naskar, Department of Chemistry, JU	MEMBER.
Dr. Kaniska Sarkar, Asst. Registrar, JU	MEMBER SECRETARY.

### **UGC-HUMAN RESOURCE DEVELOPMENT CENTRE**

Director	: Prof. Ashish S. Verma (Addl. Charge)
Phone	: 033-2335-9349 (Extn. 6209 / 6115)
Tele-Fax	: 033-2335-7069
Mobile	: 086-979-7343
E-mail	: ugchrdcju@outlook.com

Over a period of almost one and half decade time span since inception in 2000, UGC- HRDC (former Academic Staff College) is performing its responsibility for quality enhancement and faculty development of existing teachers and librarians from all over the country. It also organizes programmes on Principals/ Academic Administrator, Research scholars, Nonteaching Staff in tune with the UGC guideline and sanction. The major programmes that the UGC-HRDC, JU usually conducts are Orientation Programmes and Refresher Courses for new entrants and existing teachers and librarians. Apart from above mentioned courses it also organizes various Special Courses such as Summer/Winter Schools, Workshops, Short Term Courses on Research Methodology *etc.* UGC-HRDC, JU has its uniqueness for conducting Refresher Courses, Workshops and Short Term Courses in Engineering disciplines. Participants join HRDC, JU not only from West Bengal but from different corners of the country especially from North East. Though Jadavpur university has its brilliant pool of Resource persons of its own, HRDC also



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invites eminent scholars, Researchers, Academicians, Technical professionals from different reputed institutions from our country as well as abroad.

#### Director (During the reference period):

**Prof. Ashish S. Verma**

**Director (Additional Charge), UGC – HRDC, JU  
and Pro Vice Chancellor, Jadavpur University**

#### Staff Structure:

Designation	Name
<b>Academic Staff</b>	
Deputy Director	Vacant
Assistant Director	Dr. Nandan Bhattacharya
<b>Non-teaching Staff</b>	
Section Officer	Sri Prabir Kr. Chatterjee
Senior Assistant	Vacant
Junior Assistant	Sri Abhisek De
Assistant Librarian	Vacant
Computer Operator	Smt. Chaitali Mukherjee
Peon	Smt. Sumita Modak
Hostel Attendant	Sri Sanjib Mukherjee

In addition logistic support is provided by Sri Babu Pusti and Sri Shyamal Chakraborty.

#### Performance during 01.04.2016 – 31.03.2017

The details of academic activities of the UGC-HRDC, JU are as follows

##### A. Orientation Programme Details 2016-2017:

Sl. No.	Coordinator(s)	Date
61 <sup>st</sup>	Dr. Rajib De Dr. Nandan Bhattacharya	June 13 – July, 11, 2016
62 <sup>nd</sup>	Dr. Subarna Kumar Das Ms. Punyasha Chatterjee	August 29 – September 27, 2016
63 <sup>rd</sup>	Dr. Muktipada Sinha Dr. Nandan Bhattacharya	November 15 – December 12, 2016
64 <sup>th</sup>	Dr. Pankaj Kumar Roy	February 06 – March 04, 2017

##### B. Refresher Course Details 2016-2017:

Sl. No.	Course Title	Department	Coordinator(s)	Date
<b>Subject-specific Refresher Course</b>				
1	<i>VLSI Design and Nanotechnology : Issues and Challenges</i>	Electronics & Computer Science	Prof. Debesh Kumar Das Prof. Subir Kumar Sarkar,	28/11/2016 To 17/12/2016
2	<i>Built Environment &amp; Sustainable Technology (BEST)</i>	Civil Engineering & Architecture	Dr. Suchandra Bardhan Dr. Debashish Das,	02/01/2017 To 21/01/2017
3	<i>Mathematics &amp; its Applications</i>	Mathematics	Prof. Kallol Paul,	02/01/2017 To 21/01/2017

##### Inter-disciplinary Course

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- 4 *Disaster Management* Civil Engineering Dr. Gupinath Bhandari Dr. Pritam Aitch Dr. Tumpa Hazra, 20/10/2016 To 11/11/2016
- 5 *Current Environmental Issues: Impact, Measurement & Mitigation* School of Environmental Studies Dr. Tarit Roychowdhury, 02/01/2017 To 21/01/2017
- 6 *Life Sciences : Life Science & Bio-technology* Dr. Paltu Kumar Dhal Prof. Biswadip Das, 02/01/2017 To 21/01/2017

#### Winter School

- 1 *Nation & Higher Education* : Dept. of History Prof. Mahua Sarkar Prof. Nupur Dasgupta 10/03/2017 To 31/03/2017

#### C. Short Term Course Details 2016-2017:

Sl. No.	Course Title	Department	Coordinator(s)	Date
1	<i>Methodology Program for Research Scholars</i>	Dept. of Economics	Prof. Sushil Halder	14/12/2016 To 20/12/2016
2	<i>Use of Information Resources in Research &amp; Development</i>	Library & Information Science	Prof. Subarna Kumar Das,	05/01/2017 To 11/01/2017
3	Basic Skill of Counselling	Dept. of Education	Dr. Muktipada Sinha	10/01/2017 To 16/01/2017
4	Professional Development Program for Non-Academic Group 'B' and 'C' Staff including UGC Staff (3 Days)	Administration	Dipanjana Ray Chaudhuri	Audit Officer 18/01/2017 To 20/01/2017
5	Workshop for Academic Administrators (2 days)	Administration	Dr. Sanjay Gopal Sarkar	Jt. Registrar (Academic) Not done due to insufficient participants
6	Workshop for scholar on Language & Literature (3 days)	School of Languages and Linguistics	Dr. Samir Karmakar Dr. Atanu Saha	04/10/2016 To 06/10/2016
7	STC on Teachers' Educators (6 Days)	Dept. of Education	Dr. Bishnupada Nanda	03/11/2016 To 09/11/2016
8	Principal Meet (1 Day)	UGC – HRDC, Jadavpur University, Salt Lake Campus	Prof. Amitava Datta Mr. Debasish Pal	25/03/2017

In addition to its regular duty HRDC has also taken the initiative to organize National Symposium on “**Quality Assurance in Higher Education**” this year. Prof. Ashish S. Verma, Pro Vice Chancellor, Jadavpur University and the then Director, HRDC was the chairman and Prof. Suranjan Das, Hon'ble Vice Chancellor, Jadavpur University was the Patron – in – Chief.

#### Synopsis of the Performance

During the period UGC – HRDC, JU has performed 4 Orientation Programmes, 6 Refresher Courses (3 Subject specific Refresher Courses and 3 Inter-disciplinary Course), 1 Winter School, and 7 Short Term Courses. All together approximately 500 teachers and librarians from different colleges and universities and 31 Principals had participated in the above mentioned programmes. UGC – HRDC, JU acknowledges the kind supervision of Prof. Ashish S. Verma, Pro Vice Chancellor, Jadavpur University and the then Director for his valuable involvement and contribution.

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## **Annual Report 2016-17**

### **OFFICE OF THE DIRECTOR OF YOUTH WELFARE**

INT : 2457- 2247

Director of Youth Welfare : Dr. Bappa Mullick

diryw@admin.jdvu.ac.in

### **OFFICE OF THE DIRECTOR OF YOUTH WELFARE**

Jadavpur University students did well in the co-curricular areas in the year 2015-16. There was a steady growth in students' participations at various levels, including students clubs / societies, intra-murals, extra-murals etc, wherein they demonstrated their zeal for participation in cultural, literary, artistic and adventure sports' activities. Students also exhibited their competence, coordination and enthusiasm in organizing of major events independently and while assisting the university. It was heartening to see the camaraderie and understanding amongst the members of various clubs in organizing of events, assisting in finding sponsors, and in sharing of rooms for their sessions. The Science Club, JUMHC, JUPC, QFDS, Music Club and the Chess Club attracted huge memberships, and were the most active clubs with overwhelming participation from the new entrants. Outreach activities of office were also well attended by the students of various clubs and JU students in general.

#### **Details of Major Participations, Achievements and Events:-**

##### **30th AIU Inter-University East Zone Youth Fest at Tezpur Univ., Assam, (3rd-7th Jan. 2016)**

At the AIU East Zone Youth Festival 2015-16 at the Tezpur University in January 2016, Jadavpur University could participate in 16 events with a total contingent of merely 22 students did moderately well in winning 5 prizes and qualifying in 2 events for the nationals. The Participants were –

1. Agnidhra Gain	ChemEngg.	Light vocal
2. Rahul Kalikoey Solo	Intr. Relations	Group Song (Western) & Western
3. J.A.R.Lepcha	Geology	Group Song (Western)
4. SabinaySubba	Metallurgy	Group Song (Western)
5. RaunakFarhaz	Chemistry	Group Song (Western)
6. Milind Khatiwada	Comp. Lit.	Group Song (Western)
7. Nihal Lama	Comp. Lit.	Group Song (Western)
8. Utsav Biswas	Economics	Debate
9. Shreyan Chatterjee	English	Debate
10. SoumyaGuchhait	Civil Engg.	Quiz
11. Saswata Acharya	Pharm. Tech.	Quiz
12. Soumik Chakraborty	Chem. Engg.	Quiz
13. Saket Chowdhury	Mech. Engg.	Elocution
14. Bishwendu Ghosh	History	Mime
15. SantuBera	Education	Mime
16. SahebSamanta	Philosophy	Mime

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17. SubrataKhetri	Philosophy	Mime
18. Ranajit Jana	Philosophy	Mime
19. Debjyoti Das	Economics	Mime
20. TanmoyKoley	Arch. Engg.	Fine Arts
21. ArijitPramanick	Comp. Sc. &Engg.	Fine Arts
22. Debashis Manna	Civil Engg.	Instrument (percussion),

**Team Manager – Mr. Pralay Banerjee**

**Contingent in-charge – Mr. Santanu Biswas**

**Results:**

- |                         |                                   |               |
|-------------------------|-----------------------------------|---------------|
| 1. Light Vocal Solo-    | Agnidhra Gain                     | <b>Third</b>  |
| 2. Western Vocal (Solo) | Rahul Kalikotey                   | <b>Second</b> |
| 3. Debate               | Utsav Biswas & Shreyan Chatterjee | <b>Third</b>  |
| 4. Cartooning-          | Tanmoy Koley                      | <b>Second</b> |
| 5. Collage              | Tanmoy Koley                      | <b>Third</b>  |

• **National Youth Festival at Mysore University, Mysore (15<sup>th</sup> -19<sup>th</sup>Feb. 2016)**

At the AIU National Youth Festival 2015-16, held at Mysore University, Mysore, 74 universities participated with the 1<sup>st</sup> and 2<sup>nd</sup> prize winners of their respective zonals. As expected, the competition was very high and the JU students received a good exposure. The participants were:

- |                         |                 |                        |
|-------------------------|-----------------|------------------------|
| 1. Western Vocal (Solo) | Rahul Kalikotey | <b>Intr. Relations</b> |
| 2. Cartooning-          | Jyfirmoy Biswas | <b>Arch. Engg.</b>     |

**Results:**

- |                         |                 |                        |              |
|-------------------------|-----------------|------------------------|--------------|
| 1. Western Vocal (Solo) | Rahul Kalikotey | <b>Intr. Relations</b> | <b>Third</b> |
|-------------------------|-----------------|------------------------|--------------|

- **Vox Pop 3Annual Freshers' Debate** was organised by the Jadavpur University Debating Society on the 17<sup>th</sup> (prelims) and 19<sup>th</sup> (finals) of August, 2015. In the preliminary round, the students debated on the motion "*Is Chauvinism a precursor to Feminism*"? The students argued on the motion, "*This House Believes That Honey Singh is better than Pink Floyd*" in the Final Round. The Debate was set in an Oxford-Style, and 8 teams qualified to the finals. The Debate was convened by previous years' winners- SouryadeepBasak and Tannishtha Sinha. Mr. Raju Raman and Mrs. Chitralekha De Bakshi, senior teachers of Political Science at the Modern High School for Girls', Kolkata, were the jury for the evening.

**The winners were of Vox Pop Freshers' Debate 2015 were:**

**Best Team:** Dipanwita Ghatak and Srijita Poddar

**Best Speaker-** For the Motion: Utsav Biswas

**Best Speaker-** Against the Motion: Srijita Poddar

**1st Runners Up Team:** Pratiti Mandal and Utsav Biswas

**1st Runners Up-** For the Motion: Annewsa Ghosh and Dipanwita Ghatak

**1st Runners Up-** Against the Motion: Medha Mukherjee

- **Jadavpur Model United Nations (JUMUN) 2016** was organized on 31st March, and 1st and 2nd April, 2016, by the Jadavpur University Debating Society (JUDS). The promotion campaigns of the event, carried out with much gusto, were extremely successful. Prior to

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the simulation, the JUMUN team extensively organized MUN workshops in many reputed educational institutions of the city, such as The Bhawanipore Education Society College, and several schools, in addition to two workshops on campus. This very successful second edition of the conference attracted more than 1,500 delegates from six countries. The executive board consisted of the choicest and most experienced MUN-ers from all over India. Dr. Ashish S. Verma, the Pro- Vice- Chancellor of Jadavpur University, was the honourable Chief Guest of the opening ceremony. There were five committees of the United Nations simulated at JU MUN 2016. The Disarmament and International Security body of the General Assembly (GA-DISEC) of the simulation discussed the pertinent issue of the protection, promotion and development of areas affected by civil unrest. The Human Rights Council (HRC) dealt with the deeply divisive issue of discrimination based on sexual identity, while the more authoritative Security Council (SC) debated the broad agenda of international terrorism. However, the USP of this MUN were its two new committees; the Lok Sabha, which deliberated on the land ordinance passed by the Indian government, and Section 377 of the Indian Penal Code, and the Asian Maritime Organisation for Security and Cooperation (AMOSC), a concept committee where the delegates drafted the mandate and constitution of the body, and decided on voting powers. Each committee saw a variety of international issues being raised, nuanced and detailed discussions being held, and innovative solutions being proposed. The organizers were pleased with the knowledgeable professionalism of the delegates, and their unprejudiced reception of new ideas of diplomacy and international law. The chief aim of JUMUN is to make the youth of the nation and abroad aware of the laws and procedures which govern international relations, an education indispensable in our collective effort to make the world a better place.

- **JU Science Clubs' participation at the West Bengal State Student-Youth Science Fair 2015**

The **JU Science Club** took part in West Bengal State Student-Youth Science Fair 2015. JUSC represented by student members, and led by Sayantan Roy, Debarghya Dutta of ETCE-UG level and won the **second prize** of rupees 3,000/- and qualified for the final with their innovative industrial cleaning robot and Amitrajit Sarkar and AnaganMajumder of Computer Science PG level and won the **first prize** of rupees 25000/- **in Model Competition** (university level) with their innovative quadro-copter-bot.

- **Social Initiative by JU Science Club: tutoring of underprivileged students of mid/sec level.**

JU Science Club continued their exemplary initiative of **Free Tutorial programme for Underprivileged Kids** as in the previous year with their 2014 prize money amount of Rs 50,000. They continued with the Adarsha Valika Vidyalay, Jadavpur and their programme with 24 mid/sec level students went on throughout the 2015-16 academic session. The kids, who turned up on every Monday and Thursday, accompanied by their parents were taught English, Maths and Science by the enthusiastic volunteers. The kids were pepped-up by modest offerings of refreshment of fruits, biscuits and cakes on each day. The expense of this endeavour was met out by the prize winning amount of the club. This programme is an ongoing event which the club expects to continue indefinitely and takes pride in doing so.

- **Expedition to Mt. Menthosa (6443m)**

Jadavpur University, led by JU Mountaineering and Hiking Club (**JUMHC**) undertook on an **Expedition to Mt. Menthosa (6443m)** in Himachal Pradesh, between 19th June 2014 and 8th July 2014. The nine member team (6 JU male students, 3 ex-students including 1 female)

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were accompanied by 4 male Sherpa for the venture. The Indian Mountaineering Foundation (IMF) via its memo nos. 1018/IMF/IE/2014 dt. 09/05/2014 and 1031/IMF/IE/2014 dt. 10/06/2014 had given its formal approval for the expedition.

- **Musical concerts Annual Convocation and Prof. G.C. Sen Memorial Ceremony**

Student-participants of JU, led by **JU Music Club**, took part at the **Annual Convocation** and **Prof. G.C. Sen Memorial Ceremony** on 24<sup>th</sup> December 2015 and 30<sup>th</sup> December 2015, respectively. The participants were Smt. Ivy Adak, staff of Bengali Dept., Mimi Mondal of Bengali, Anuradha Mondal of B. Ed., Pokhraj Chakraborty of Sanskrit, Debapriti Jana of International Relations, Agnidhra Gayen of Chemical Engg, and Archi Banerjee, Research Scholar, School of Music and Physics.

- **Annual JUPC event - Montage' 15; JU Gallery -Intra-15; JUPC Fresher's training programme**

The annual photographic contest – **Montage' 15** was conducted at Birla Academy Hall in association with JU Photographic Club for three days in the month of March, 2015. The event attracted huge participation and footfall.

JUPC started a new initiative for JU insiders orientation – JUPC Intra, wherein they displayed their photographic artistry to the insiders via an open gallery at the lobby of the Gandhi Bhawan.

JUPC organized its annual training sessions for the freshers on the following areas in the month of August-September 2015:

Introduction Class, Basics Class, Exposure Class and Composition Class

Trainees were in excess of a hundred.

## **JU STUDENTS CLUB/SOCIETIES ACTIVITIES**

### **Jadavpur University Debating Society**

- Sharoni Goswami (Economics), Josh Prakash Majumdar (International Relations) and Souryadeep Basak (Electrical Engineering) won the **Best Team at the Jefferson Debate 2015**, organised by the Institute of Leadership, Entrepreneurship and Development (iLEAD), Kolkata in collaboration with the American Consulate.
- Ananya Roy (Economics) won the **Best Speaker** at INSTRUO 2015, organised by the Bengal Engineering and Science University, Shibpur.
- Shaberi Das (English) and Souryadeep Basak won the **Best Team** at the Xavotsav Inter-College Debate, organised by the St. Xavier's College, Kolkata.
- Sahil Badani (Electrical Engineering) and Souryadeep Basak won the **Best Team** at the Annual Inter-College Debate organised by IEST Shibpur.
- Agneet Chatterjee (CSE) won **Best Speaker** (FOR), Shalini Sinha (Pharmacy) won **Best Speaker** (Against), Anwesh Mukherjee (Economics) and Agneet Chatterjee won the **Best Team** at THE ENERGY DEBATE organised by the CESC.
- Jadavpur University won the **Best Delegation** at the Calcutta Medical College MUN 2016.
- Dwaipayan Choudhury won **Special Mention** as a reporter of International Press at St. Stephen's Model United Nations, 2016
- Srijita Poddar and Dipanwita Ghatak, along with Shreyan Chatterjee and Utsav Biswas, were Finalists at the Annual Debate organised by the Indian Statistical Institute, Kolkata.

### **KIIT International Model United Nations 2015**

The KIIT International Model United Nations Conference 2015, organized in collaboration with the US Consulate, Hyderabad and the United Nations Population Fund (UNFPA), by the Kalinga



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Institute of Industrial Technology was the largest MUN in Asia yet in terms of delegate turnout with over 2000 participants from across India and representation from twenty countries across the globe.

The MUN witnessed the simulation of thirteen committees and the International Press. It comprised three days of discerning debate and deliberation from the 30<sup>th</sup> of October to the 2<sup>nd</sup> of November, 2015.

The Chief Guest to this event was Akhilesh Yadav, Chief Minister of Uttar Pradesh. An impeccable Guest Lecture Series was set up by the organizers and was conducted through the three days of the Conference. Among the panelists were,

**Ms. Frederika Meijer:** Representative of the UNFPA in India and Country Director of the UNFPA- Bhutan

**Mr. Shaida Mohammad Abdali:** Ambassador of the Islamic Republic of Afghanistan to India, Mr. Daniel Wolven: Deputy Chief of Mission-Embassy of Sweden

**Suhel Seth:** Indian columnist and author

**Mr. Constantine Partasides:** one of the youngest solicitor-advocates to be appointed to the SILK (Queen's Council) in 2014

While the participants found themselves engaged in debate and lectures through the course of the day, social events were arranged for the evenings. These included the much anticipated performance of Indian stand-up comedian Kanan Gill and other networking dinners and dances. The Jadavpur University Delegation was represented by: **Aniruddha Talukdar** and **Dibyajyoti Basak** in the ECOSOC; **Tannistha Sinha** in the UNESCO; **Shreyan Chatterjee** and **Amrita Dasgupta** in the UNDP;

**Ujani Bhattacharya, Ekaparna Ghosh, Arpan Palit** and **Krithika Saptarishi** in the UNGA-SPECPOL;

**Nadia Imam, Rai Debnath** and **Pallav Bhura** in the UNGA-DISEC; **Sahil Badani** in the UNGA-SOCHUM;

**AkifUL Islam** and **Iman Ghosh** in the UNODC; **Roopkatha Banerjee** in the UNHRC; **Souryadeep Basak** in the Ambassadors' Committee.

In the International Press from the University were **Chandrima Biswas** and **Spandan Bandopadhyay**. Jadavpur University could always boast of developing their students into national level quality debaters. This fact was further exemplified in the invitation of three veteran debaters **Josh Prakash Majumdar, Sharoni Goswami** and **Ananya Roy** to the executive board of the KIIT International MUN. Winning accolades in recognition of excellence in committee was judged on the basis of research, speech, lobbying and analytical problem solving skills were:

**Best Delegate-** Souryadeep Basak, Tannishtha Sinha, Sahil Badani, Aniruddha Talukdar

**High Commendation-** Shreyan Chatterjee, Ujani Bhattacharya, Ekaparna Ghosh

**Special Mention-** Dibyajyoti Bask, Amrita Dasgupta, Roopkatha Banerjee, AkifUL Islam, Iman Ghosh  
These meritorious performances led to the final declaration of Jadavpur University being conferred with the award for the Best Institutional Delegation. This is the first time the University has won a collective institutional award at a Model United Nations Conference.

**A Model United Nations workshop was conducted by the Jadavpur University Debating Society** on the 12<sup>th</sup> and 13<sup>th</sup> of January, 2016. The workshop was held exclusively for students of Jadavpur University, who were taught about MUNs, as well as their importance on both the personal and global level.

Proceedings of both days were conducted by Josh Prakash Majumdar, (IR – UG III) the Secretary-General of Jadavpur University Model United Nations 2016. The workshop was attended by

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approximately 250 students, a majority of whom were from the Faculty of Engineering and Technology, who were introduced to the idea of MUNs in general and JUMUN 2016 specifically. The students were then divided into smaller clusters, headed by one or more members of the following the JUMUN 2016 Organizing Committee:

- **Jadavpur University Quiz Forum**

The club held regular sessions of Quizzing throughout the year.

#### **List of achievements by Jadavpur University Quiz Forum (QFDS) in 2015-16**

1. **Best college team:** The Saturday Club Open 2016
2. **Best college team:** Warren's Buffet (Gyandhara, IEST Shibpur)
3. **Best team – Brainstormer 2015** (Netaji Subhash Engineering College)
4. **First – CSRL Know your Romantics Quiz**
5. **First – Enigma Kolkata Regionals**
6. **First – HALT Quiz (QvicQvid, Presidency University)**
7. **First – IIT KGP SpringfestKrossfire Quiz**
8. **First – Incarnadine (Literature and Art Quiz), Presidency University**
9. **First – Literaria (St. Xavier's College Literary Fest)**
10. **First – General Quiz at National Medical College Fest**
11. **First – Presidency University Literary Society Quiz**
12. **First – Youth Parliament Quiz Contest, Gokhale Memorial Girls' College**
13. **First & Third – Milieu 2016, Presidency University**
14. **Second – Amal Ghatak Memorial Quiz, Loreto College**
15. **Second – CIEM Tech Quiz**
16. **Second – General Quiz ( QvicQvid, Presidency University)**
17. **Second – General Quiz (Swami Vivekananda Institute of Technology)**
18. **Second – Harry Potter Quiz, Presidency University Literary Society**
19. **Second – IEM General Quiz 2016**
20. **Second – MythLit Quiz, Presidency University**
21. **Second – Question Hour, World Politics Quiz (IRSC)**
22. **Second and Third – JU Fresher's Quiz**
23. **Second and Third – Quizzomaniac (as a part Yantra 2015)**
24. **Third – Chembridge Quiz**
25. **Third – Conjecture, Ramkrishna Mission Residential College, Narendrapur**
26. **Third – General Quiz, Pragati 2015, MCKV Institute of Engineering**
27. **Third – La Question! (Heritage Institute of Technology)**
28. **Third–Literature Quiz (Double Decker Open)**
29. **Third – Loreto Shield Quiz 2016**
30. **Third – Nerdmeet Pre-Gig Comics Quiz**
31. **Third – NRS General Quiz**
32. **Third – Pop Culture Quiz (Kolkata Quiz Festival)**

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33. **Third** – SSKM Fest Quiz
34. **Third** – St. Xavier's College Computer Science Fest
35. **Third** - The NUJS Open Quiz
36. **Third** – Under-25 Qui, Quriosity, organized by QFDS, JU

Following members of JU Quiz Forum achieved most of the above mentioned credits:

Krishnadev Roy (Int. Relations), Dwaipayan Choudhury (Int. Relations), Saswata Acharya (B. Pharm), Shirsho Dasgupta (English), Apratim Mukhopadhyay (English), Arkoprabha Chakraborty (English), Bedbyas Datta (Film Studies), Soham De (Chem. Engg.) Ananyo Brahma (Economics), Chayon Mondal (Met. Engg.), Soumya Guchhait (Civil Engg.), Soumik Chakraborty (Chem. Engg.), Reesom Pal (English).

- **Jadavpur University Science Club**

The JU Science Club took part in West Bengal State Student-Youth Science Fair 2015 both UG and PG level. JUSC represented by student members, won the **second prize** (Cash prize of rupees 3,000/-) in UG level and won the **first prize** PG level (Cash prize of rupees 25,000/-) in Model Competition (university level).

JU Science Club organized '**Jontro-Tontro 2016**' – an exhibition on Models and Robots made by students, at the Basketball court on 16th January, 2016

JU Science Club organised regular fortnightly sessions for its members whose number increased consistently.

Jadavpur University Science Club (JUSC) has brought many accolades to the university. Listed below are some of the achievements of the Science Club

### **State Science Fair**

One team from JUSC **represented the University at the State Science Fair**. This team successfully managed to secure the **second place** in the district level. The state level competition was an open tournament, in which this team achieved the **first position** among 47 teams, and brought glory to the university

### **Techknow-Cradle**

On 27th and 28<sup>th</sup> June, 2015, the Science Club organised **Techknowcradle 2015** (the second of its kind) . Around 50 students of classes VIII , IX and X from reputed schools like South Point, Nava Nalanda, Mahadevi Birla and others participated. In this educational endeavour by JUSC, members of JUSC took sessions where they demonstrated various experiments on Physics and Chemistry. There were also an introductory- session on Basic Electronics & Robotics. The students were provided basic robotics kit, basic robotics. The event came to a close with a Manual Bot Racing Competition in which the bots were prepared by the school students under the supervision of the volunteers. The winners were awarded small prizes.

### **Jontro-Tontro**

The JUSC organised **Jontro-Tontro**, a fresher's tech fest. In this fest there were two events:

1. An event for UG-1 students of Jadavpur University
2. An event for the students of all colleges (including JU).

In both the events total prize money worth Rs.20000 was awarded.

For the past two years (2015-2016), the club has participated in various tech-fests with their custom-made robots. They have successfully placed their mark in local college tech-fests, with a special mention to Tech-Fest organised by Meghnad Saha Institute of Technology, which was a

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great example of teamwork for the club members. A team from JUSC participated in Kshittij, a tech-fest organised by IIT Kharagpur, where our manually controlled bot was selected for the best mechanical design, and the autonomous bot was qualified for the final stage. Along with making robots for various events, JUSC also encourages new students to make bots. The social wing of JUSC is involved in teaching students from classes 6-8, who don't have the privilege to get proper tuition, books and all.

Active Members of JUSC are Supratik Sarkar, Subhashis Bhowmik, Souradeep Barua, Srijan Chattopadhyay, Paulomi Bhowmick and Amitrajit Sarkar.

Social Initiative by Jadavpur University Science Club.

The JUSC organizes classes on English and Mathematics twice a week in the University for the underprivileged students. The students come from the schools: NK PAL ADARSHA SHIKSHAYATAN and ADARSHA BALIKA SHIKSHAYATAN . The initiative started by Biswadip Maity, the then convenor of JUSC, involves teaching the students and also providing them refreshments like cake and a banana . The students are taught by the volunteers who are students of Jadavpur University. The Volunteers are:

Biswadip Maity(CSE), Souradeep Barua(CSE), Paulomi Bhowmick(Elec.Engg.), Srijan Chatterjee (CSE), Nikhil Kumar Shaw(CSE), Rishikesh Chandan(Elec.Engg.), Rakhi Pratihar (Mathematics), Arshabhi Kayal (Civil), Som Mukherjee(CSE), Supratik Sarkar(ETCE), Ronit Ghosh(Chem. Engg.), Priyanka Mondal (Mathematics), Soumyadeep Ghosh(CSE), Arnab Roy(CSE) Satyaki Chakraborty(CSE), Aritra Ray(Elec.Engg.), Shounak Biswas(Elec. Engg), Mohit Banerjee (CSE), Sadaf Syed (Elec.Engg.), Debapriya Basu (Elec. Engg.), Soumee Guha (Elec. Engg.), Suraj Kumar Sunny (Pharm. Tech.), Amit Gaurav (Pharm. Tech.), Shams Tabrez (Pharm. Tech.), Rishu Agrawal (CSE), Subhashis Bhowmik (Elec. Engg.), Chirasree Banerjee (Philosophy), Sreyashi Ray (Comp. Lit.), Saikat Mukherjee, (Mech. Engg.), Saptarshi Pal (ETCE), Ronit Chattopadhyay (Elec. Engg.), Taranga Datta (Prod. Engg.), Jaivik Mehta (Chem.Engg.), Iliana Gupta (Comp. Lit.), Pratyush Barua (ETCE), Piyush Bansal (Power Engg.), Sritama Maitra (English), Chirayata Bhattacharyya (ETCE), ArchitaMitra (English), Aishik Roy Chaudhury (Mech.Engg.), Sayan Sanyal (Mech. Engg.), Abhishek Kumar Singh (Civil),Pratyasha Basu (English), Amit Shukla (Mech. Engg.), Raghav Mundhra (Mech. Engg.), Debdwaipayan Biswas (ETCE), Soudeep Dhar (Mech. Engg.), Medha Mukherjee (English), Reshav Gupta (Civil),

### • **Jadavpur University Photographic Club**

Jadavpur University Photographic Club (JUPC) provided students with photographs of their degree receiving moments on Annual Convocation Day, like in the previous years.

JUPC organized a phototalk with distinguished photographer Mr Turjoy Chowdhury, who is acclaimed nationally and internationally, with a participation of more than 80 students.

JUPC organised a photographic training session at RabindraSarobar with a turnout of approximately a100 students.

JUPC organized training sessions for the fresherson the following dates:

12 <sup>th</sup> August, 2015	- Introduction Class
19 <sup>th</sup> August, 2015	- Exposure
26 <sup>th</sup> August, 2015	- Depth of Field
2 <sup>nd</sup> September, 2015	- Composition

JUPC organized **Intra '15 – Annual Members Photography Exhibition** on 10<sup>th</sup>, 11<sup>th</sup> and 12<sup>th</sup> August, 2015 in the lobby of Gandhi Bhawan, JU

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### **JUPC Student Participations and Achievements**

#### **Life Press Photo 2016**

- Indranil Banerjee(Arch. Engg.)-**Bronze Medal** in Spot news, general news (series of photos)
- Siddhartha Banerjee (Chem. Engg. )-1 Acceptance in Spot news, general news (single photo)

#### **Private Magazine, France**

- Indranil Banerjee's (Arch. Engg.)photostory on Girish park flyover collapse-"INTERRUPTION" gets **published in Private Magazine, France.**  
A STORY OF FAITH, photo essay by Siddhartha Banerjeegets **published in Private Magazine, France.**  
OBLIVION: Life after Death, photo essay by SouravSil (Civil Engg.), gets **published in Private Magazine, France.**  
WEAVER ANTS: A closer look, photo essay by SurajBhakat (ETCE), gets **published in Private Magazine, France.**

#### **Dodho Magazine**

- Indranil Banerjee's photostory "INTERRRUPTION" on Girish park Flyover Collapse gets **published in Positive Magazine.**  
A STORY OF FAITH, photo essay by Siddhartha Banerjee, gets **published in Dodho Magazine.**

#### **Positive Magazine**

- Indranil Banerjee's photostory "INTERRRUPTION" Girish park Flyover Collapse gets **published in Positive Magazine.**

#### **Montage 16**

- Indranil Banerjee- 1 Certificate of Merit, 1 Acceptance (Open Category)
- Deepan Das(ETCE)- 1 Acceptance (Thematic Category)

#### **Deep Freeze Photozine Magazine February Edition, 2016**

- Indranil Banerjee - 1 Photograph Published

#### **10th Holland International Image Circuit 2016**

- Indranil Banerjee - 5 Acceptances including one PSA honourable mention
- Suraj Bhakat(ETCE)- 2 Acceptances - Siddhartha Banerjee - 1 Acceptance
- Basita Das (Research Scholar, Physics) - 1 Acceptance
- Ritwik Mandal(Chem. Engg.)- 1 Accpetance
- Debashis Manna(Civil) - 1 Acceptance
- Arijit Pramanick(CSE)- 1 Acceptance
- Anindya Datta(Mech. Engg.)- 1 Acceptance

#### **Khyyam Internation Exhibition of Photography 2015**

- Ritwik Mandal - 6 Acceptances
- Siddhartha Banerjee - 5 Acceptances
- Tirthadeb Ghosh (Mech. Engg.) - 3 Acceptances

#### **West Midnapore Photography Utsav 2015**

- Ritwik Mandal - **3rd Place (B/W section)**
- SurajBhakat - 1 Acceptance

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- Siddhartha Banerjee - 1 Acceptance
- ArijitPramanick - 1 Acceptance
- Debashis Manna - 1 Acceptance
- Tirthadeb Ghosh - 1 Acceptance

#### **Deepfreeze Photozine Magazine 2015**

- Indranil Banerjee - 1 **Photograph Published**

#### **International Salon of Photographic Art of Romania Bucure'ti 2015**

- Ritwik Mandal - 1 Acceptance

#### **Chayachitra -Dhanak 2015 by Indian Institute of Space Science And Technology (IIST)**

- Indranil Banerjee- **Winner**

#### **1st Woznick International Salon of Photography 2015**

- Ritwik Mandal - 1 FIAP Silver Medal and 1 Acceptance(Potraits Section)
- Indranil Banerjee - 2 Acceptances (Potraits Section)&2 Acceptances (Open Section)
- Tirthdeb Ghosh - 2 Acceptances (Potraits Section)
- Anindya Datta - 1 Acceptance (Potraits Section)
- Arijit Pramanick - 1 Acceptance (Potraits Section)

#### **Photographic Society of America (PSA) Photo Travel Salon Russia 2015**

- Ritwik Mandal - 1 Acceptance
- Indranil Banerjee - 1 Acceptance
- Arijit Pramanick - 1 Acceptance
- Anindya Datta - 1 Acceptance

\*All acceptances in FIAP Open Monochrome Section

#### **Narendrapur Photo Salon 2015**

- Siddhartha Banerjee - 1 Acceptance

#### **3rd Negeri Sembilan International Salon of Photography 2015**

- Ritwik Mandal - 2 Acceptances (One in Projected Image Open Colour, One in Projected Image Monochrome Section)
- Suraj Bhakat - 1 Acceptance (Projected Image Monochrome Section)
- Siddhartha Banerjee - 1 Acceptance (Photo Travel Section)
- Tirthadeb Ghosh - 1 Acceptance (Photo Travel Section)

#### **Expressions: Anticipate the Moment Photography Contest**

- Siddhartha Banerjee - Featured in Top 100 Artists shortlist
- Indranil Banerjee - Featured in Top 100 Artists shortlist

#### **Tallaght International Salon of Photographic Art 2015**

- Tirthadeb Ghosh - 2 Acceptances
- Suraj Bhakat - 1 Acceptance
- Ritwik Mandal - 1 Acceptance

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- SouravSil - 1 Acceptance
- Soham De - 1 Acceptance

### **28e Concours International de Photos pour la Jeunesse (Photo-Club PETANGE)**

- Indranil Banerjee - 1 Acceptance

### **SHUTTER HUNT- An inter school & college photography competition organised by cam2o**

- Siddhartha Banerjee - Winner
- Sourav Sil - 2nd runner up
- Indranil Banerjee - Featured in top 10 photographs
- Anindya Dutta -Featured in top 10 photographs
- Tirthadeb Ghosh - Featured in top 10 photographs

### **Weaver ants – Suraj Bhakat – Published in [www.Unframe.com](http://www.Unframe.com)**

- **Jadavpur University Mountaineering and Hiking Club**

#### **Achievements/Participations of JUMHC**

In June 2015, we organised **Mt. KR2 Expedition (6187meters)**. 6 student members were a part of this expedition along with 2 senior passout members and climbed KR2 successfully and made it to the summit.

Also during June 2015, 5 students of Jadavpur University completed **Basic Mountaineering Course** from ABVIMAS Manali. And 2 Students completed the **Advance Mountaineering Course** from ABVIMAS Manali itself.

JUMHC conducted 3 Rock Climbing practices at Susunia Hills during the span of September to October, 2015. JUMHC conducted another Rock climbing practice at Mathaburu Hills during December, 2015.

During January 2016, JUMHC conducted the annual **Rock Climbing Course** of 4 days; where there are Basic Trainees and also Intermediate trainees.

JUMHC held regular rock climbing training sessions at the Artificial Rock, situated at the JU Salt Lake Campus. There were 20plus training sessions held during the year.

- **Jadavpur University Music Club**

AgnidhraGaiyen, a student of Chemical Engineering and member of JU Music Club, participated at IIM, Kolkata Annual Fest and secured the 2<sup>nd</sup> position in light vocal competition. Anirban Bhattacharya, a student of Chemical Engineering and member of JU Music Club, participated at IIT, Kharagpur Spring Fest and secured the 3<sup>rd</sup> position in Instrumental solo (non-percussion) competition.

Music Club members performed at the Annual Convocation of JU and at the Prof. G.C. Sen Memorial function as in the previous years.

Music Club members represented in the JU contingent at the AIU Youth-Fest 2015-16 in various music events.

The members held regular musical sessions throughout the year.

#### **Jadavpur University Drama Club (JUDC)**

JUDC stood **Second** in an inter college Street-Play competition at Lady Brabourne



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Kaleidoscope, 2015

JUDC performed at IIT Kharagpur Spring Fest, 2016.

Another significant milestone was Thespo15 where JUDC performed.

JUDC performed several street plays during the academic year, both within and outside the campus, ranging from competitions (placing amidst first and second in a number of them).

JUDC conducted and attended numerous workshops under the mentorship of eminent theatre personalities, the most recent being at the Padatik Theatre.

Members involved in the activities of the following events throughout the year:

Julia Banerjee (English), Dwaipayan Choudhury (Intl. Relations), Uzma Faiyaz (Intl. Relations), Sangeeta Sinha (Intl. Relations), Rohini Guha Thakurta (Comparative Literature), Kaustuv Bose (FTBE), Tamalika Roy (English), Medhashri Mahanty(English), Arpita Roy (English), Tiasha Bhattacharjee, Mainak Das, Deep Sarkar, Soham Panja, Kaushik Saha, KaustavNayak, Nilanjan Samanta, Suryansh Singh, Rajdeep Ghoshal, Sayak Das, Pritam Chakrabarty, Suryansh Singh, Bhuvanesh Bahety

- **Jadavpur University Chess Club**

JU Chess Club conducted regular sessions of chess almost on a daily basis throughout the year. The total membership of the club increased manifold.

There was a training session for chess enthusiasts hosted by the chess in January 2016 which was attended by 28 students.

JU Chess Club organised intra-university chess tournament during the month of January, 2016, with a participation of 40 students. The tournament was held up at OPT Seminar Hall, AC Canteen Building.

- **Jadavpur University Art and Literary Society(ALS)**

Saket Choudhary, student of Mechanical Engineering, and also a student member of JUALS, secured **2<sup>nd</sup> position** in extempore at IIT KGP spring fest-2015.

The club members organised regular sessions towards publication of their annual magazine "**Clarion15**"

ALS members did well while representing JU at the Youth Fest at the EZYF.

### **Other Activities/Responsibilities towards Promotion and Welfare of Students**

#### **Best All-Round Graduates and Post-Graduate awards 2015**

The processing and selection for the recipients of the Annual Best All-Round Graduates and Post-Graduate awards 2015 was carried out by the office.

#### **Best All-Round Graduate Award for the year2015–**

1. PrativaMoyee Gold Centered Silver Medal for the Best All-Round Female Graduate (including all the Faculties): **Sharoni Goswami**
2. Alumni Association Gold Centered Silver Medal for the Best All-Round Graduate combining all the three faculties: **Biswadip Maity**
3. Purna Chandra Laha Silver Medal for the Best All-Round Graduate including all the faculties: **Biswadip Maity**
4. PrafullaKanti Banerjee Silver Medal to be given to the Best All-Round Graduate from the remaining two faculties:**Saheb Samanta**

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5. Monibala Roy Gold Centered Silver Medal to be awarded to the Best All-Round Girl Graduate of the Engg. & Tech. Faculty only: **No Applicant**
6. Dipak Kumar Choudhury Memorial Gold Centered Silver Medal for the Best All-round Graduate combining all the three Faculties: **BiswadipMaity**

**Best All-Round Post-graduate Award for the Year 2015**

1. B. D. Mukherjee Memorial Gold Centered Silver Medal for Best All-Round Post Graduate Award : **Pokhraj Chakraborty**

**Other Activities/Responsibilities towards promotion and Welfare of Students**

**“Personal Accident-cum-Medical Insurance for students of Jadavpur University”**

The existing medical insurance policy of JU students with NIC Ltd., which is processed for claims by this office, was renewed for the year 2015-16. The subscription amount remained at Rs.20/student/year, while the accident related medi-claim limit remained at Rs. 20,000/year/student. However, a module has been arrived at which might take care of medical expenses even in excess of Rs. 20,000/-, in case the cumulative claim amount of JU for the term-year remains within Rs. 1,20,000/-.

Below the list of students who got the claimed amount for the session 2015-16

1. Nikhil Das, Civil Engg.,	Rs. 1203/-
2. Swarnamayee Jana, Phy. Edu.	Rs. 20000/-
3. Anshuman Mondal, Physics	Rs. 1826/-
4. Rahul Mondal, Phy. Edu.	Rs. 20000/-
5. Debasis Jana, History	Rs. 1690/-
6. Munilal Mahato,Phy. Edu.	Rs. 20000/-
7. Pranav Abhishek, Civil Engg.	Rs. 20,000/-
8. Hamidur Rahman Molla, Phy. Edn.	Rs. 4257/-

SECTION A  
[As ON 31.03.2018]

ANNEXURE I

**Annual Report 2017-18**

**FACULTY PROFILE**

(As on 31.03.2018)

**ARTS & ISLM**

<b>SL.</b>	<b>Department</b>	<b>Name</b>	<b>Present Desg.</b>
<b>Bengali</b>			
1	Bengali	Dr. Achinta Biswas	Professor
2	Bengali	Dr. Udaya Chakraborty	Professor
3	Bengali	Dr. Gopa Datta	Professor
4	Bengali	Dr. Sekhar Kumar Samaddar	Professor
5	Bengali	Dr. Sampa Chaudhuri	Professor
6	Bengali	Dr. Ananya Baruya	Professor
7	Bengali	Smt. Sutapa Sengupta	Asso. Professor
8	Bengali	Sri Saswata Bhattacharya	Asst. Professor
9	Bengali	Dr. Abdul Kafi	Asst. Professor
10	Bengali	Dr. Barendu Mandal	Asso. Professor
11	Bengali	Dr. Rajayeswar Sinha	Asso. Professor
12	Bengali	Dr. Joydeep Ghosh	Asst. Professor
13	Bengali	Dr. Payel Basu	Asst. Professor
<b>Comparative Literature</b>			
14	Comparative Literature	Dr. Ipshita Chanda	Professor
15	Comparative Literature	Dr. Suchorita Chattopadhyay	Professor
16	Comparative Literature	Dr. Kavita Panjabi	Professor
17	Comparative Literature	Dr. Kunal Chattopadhyay	Professor
18	Comparative Literature	Dr. Samantak Das	Professor
19	Comparative Literature	Dr. (Smt.) Sucheta Bhattacharya	Professor
20	Comparative Literature	Sri Aveek Majumder	Asst. Professor
21	Comparative Literature	Dr. Sujit Kr. Mandal	Asso. Professor
22	Comparative Literature	Dr. Sayantan Dasgupta	Asso. Professor
23	Comparative Literature	Dr. (Smt.) Debashree Datta Ray	Asst. Professor
24	Comparative Literature	Smt. Epsita Halder	Asst. Professor
25	Comparative Literature	Dr. Partha Sarathi Bhowmik	Asst. Professor
26	Comparative Literature	Dr. Sumit Kumar Barua	Asst. Professor
<b>Economics</b>			
27	Economics	Dr. Goutam Gupta	Professor
28	Economics	Dr. Asim Kumar Karmakar	Asso. Professor
29	Economics	Dr. Ajitava Raychaudhuri	Professor
30	Economics	Dr. Joyashree Roy	Professor
31	Economics	Dr. Rajat Acharyya	Professor
32	Economics	Dr. Ambar Nath Ghosh	Professor
33	Economics	Dr. Siddhartha Mitra	Professor
34	Economics	Dr. Malabika Roy	Professor
35	Economics	Dr. Arpita Ghose (nee Dhar)	Professor
36	Economics	Dr. Jugaratan Barman	Asso. Professor

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37	Economics	Dr. Saikat Sinha Roy	Professor
38	Economics	Dr. Vivekananda Mukherjee	Professor
39	Economics	Dr. Sushil Kr. Haldar	Professor
40	Economics	Dr. Amit Kundu	Professor
41	Economics	Dr. Tanmoyee Banerjee Chatterjee	Professor
42	Economics	Dr. Swapnendu Bandyopadhyay	Professor
43	Economics	Smt. Soma Mondal	Asst. Professor
44	Economics	Dr. Sanmitra Ghosh	Asso. Professor
45	Economics	Dr. Vikas Dixit	Asst. Professor
46	Economics	Dr. Bidisha Chakraborty	Asso. Professor
47	Economics	Dr. Poulomi Roy	Asst. Professor
48	Economics	Dr. Simontini Das	Asst. Professor
49	Economics	Dr. Rilina Basu (Banerjee)	Asst. Professor

### English

50	English	Dr. Ananda Lal	Professor
51	English	Dr. Amlan Das Gupta	Professor
52	English	Dr. Nilanjana Gupta	Professor
53	English	Dr. Prodosh Bhattacharya	Professor
54	English	Dr. Santanu Biswas	Professor
55	English	Dr. Chandreyee Niyogi	Professor
56	English	Dr. Abhijit Gupta	Professor
57	English	Dr. Paromita Chakravarti	Professor
58	English	Dr. Nandini Saha	Professor
59	English	Dr. Rimi Barnali Chatterjee	Professor
60	English	Dr. Nilanjana Deb	Asso. Professor
61	English	Dr. Saswati Halder	Asso. Professor
62	English	Dr. Monojit Mondal	Asso. Professor
63	English	Dr. Rafat Ali	Asst. Professor
64	English	Smt. Sonia Sahoo	Asso. Professor
65	English	Dr. (Sm.) Sutanuka Ghosh	Asst. Professor
66	English	Dr. Ramit Samaddar	Asst. Professor
67	English	Dr. Abhishek Sarkar	Asst. Professor
68	English	Dr. Kaustav Bakshi	Asst. Professor
69	English	Sri Ishan Chakraborty	Asst. Professor
70	English	Dr. Doyeeta Majumder	Asst. Professor

### Education

71	Education	Dr. Bishnupada Nanda	Professor
72	Education	Dr. Muktipada Sinha	Asso. Professor
73	Education	Sri Debashis Mirdha	Asst. Professor
74	Education	Dr. Lalit Lalitav Mohakud	Asst. Professor
75	Education	Sri Prokash Biswas	Asso. Professor

### Film Studies

76	Film Studies	Dr. Moinak Biswas	Professor
77	Film Studies	Dr. Moinak Biswas	Professor
78	Film Studies	Dr. Abhijit Roy	Professor
79	Film Studies	Dr. Madhuja Mukherjee	Asso. Professor

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80	Film Studies	Sri Anindya Sengupta	Asst. Professor
81	Film Studies	Dr. Shradhanjali Tamang	Asst. Professor
82	Film Studies	Sri Arijeet Mandal	Asst. Professor

### History

83	History	Dr. Ranjan Chakrabarti	Professor
84	History	Dr. Mahua Sarkar	Professor
85	History	Dr. Anuradha Roy	Professor
86	History	Dr. Nupur Dasgupta	Professor
87	History	Dr. Kaushik Roy	Professor
88	History	Dr. Sudeshna Banerjee	Asso. Professor
89	History	Dr. Subhashis Biswas	Professor
90	History	Dr. Rup Kumar Barman	Professor
91	History	Dr. Suchetana Chattopadhyay	Asst. Professor
92	History	Dr. Maroona Murmu	Asso. Professor
93	History	Sri Samir Das	Asst. Professor
94	History	Dr. Tilottoma Mukherjee	Asso. Professor
95	History	Dr. Chandrani Banerjee Mukherjee	Asst. Professor
96	History	Dr. Samarpita Mitra	Asst. Professor
97	History	Dr. Debajit Dutta	Asst. Professor
98	History	Dr. Utsa Ray	Asst. Professor

### International Relation

99	International Relation	Dr. Goutam Kumar Basu	Professor
100	International Relation	Dr. Rabindra Sen	Professor
101	International Relation	Sri Om Prakash Mishra	Professor
102	International Relation	Dr. Sumita Sen	Professor
103	International Relation	Dr. Partha Pratim Basu	Professor
104	International Relation	Dr. Anindya Jyoti Majumdar	Professor
105	International Relation	Dr. Shibashis Chatterjee	Professor
106	International Relation	Mrs. Rochona Das Poddar	Asso. Professor
107	International Relation	Dr. Kanak Chandra Sarkar	Professor
108	International Relation	Dr. Kakoli Sengupta	Asso. Professor
109	International Relation	Dr. Imankalyan Lahiri	Asst. Professor
110	International Relation	Dr. Herken Neadan Toppo	Asst. Professor
111	International Relation	Dr. Bijaya Kr. Das	Asst. Professor
112	International Relation	Dr. Kaushik Sen	Asst. Professor
113	International Relation	Dr. Bhagaban Behera	Asst. Professor
114	International Relation	Sri Arup Bhattacharyya	Asst. Professor
115	International Relation	Sri Subhajit Naskar	Asst. Professor

### Library and Information Sc

116	Library and Information Sc.	Dr. Sunil Kumar Chatterjee	Professor
117	Library and Information Sc.	Dr. Sunil Kumar Chatterjee	Professor
118	Library and Information Sc.	Dr. Udayan Bhattacharjya	Professor
119	Library and Information Sc.	Dr. Goutam Maity	Professor
120	Library and Information Sc.	Dr. Subarna Kr. Das	Professor
121	Library and Information Sc.	Dr. Tarun Kumar Mondal	Asst. Professor



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### School of Languages

122	School of Languages	Dr. Mahidas Bhattacharya	Professor
123	School of Languages	Dr. Atanu Saha	Asst. Professor
124	School of Languages	Dr. Samir Karmakar	Asst. Professor

### Philosophy

125	Philosophy	Dr. Ratna Dutta Sharma	Professor
126	Philosophy	Dr. Rupa Bandyopadhyay	Professor
127	Philosophy	Dr. Madhumita Chattopadhyay	Professor
128	Philosophy	Dr. Sadhan Chakraborti	Professor
129	Philosophy	Dr. Soumitra Basu	Asso. Professor
130	Philosophy	Dr. Gangadhar Kar	Professor
131	Philosophy	Dr. Atashee Chatterjee (Sinha)	Professor
132	Philosophy	Dr. Lopamudra Choudhury	Professor
133	Philosophy	Dr. Proyash Sarkar	Professor
134	Philosophy	Dr. Sashi Nungla	Professor
135	Philosophy	Dr. Aparajita Mukhopadhyay	Professor
136	Philosophy	Dr. Jhuma Chakraborty	Asso. Professor
137	Philosophy	Dr. Dipayan Pattanayak	Asso. Professor
138	Philosophy	Dr. Maushumi Guha	Asso. Professor
139	Philosophy	Shri Arun Mahata	Asso. Professor
140	Philosophy	Dr. (Smt.) Maitreyee Datta	Asso. Professor
141	Philosophy	Dr. Preetam Ghoshal	Asso. Professor
142	Philosophy	Mrs. Rubai Saha	Asst. Professor
143	Philosophy	Dr. Gopi Nath Mondal	Asst. Professor
144	Philosophy	Dr. Samar Kumar Mondal	Asso. Professor
145	Philosophy	Dr. Gargi Goswami	Asst. Professor
146	Philosophy	Dr. Madhucchanda Sen	Asso. Professor

### Physical Education

147	Physical Education	Dr. Sudip Sundar Das	Professor
148	Physical Education	Dr. Ashoke Kumar Biswas	Professor
149	Physical Education	Dr. Gopal Chandra Saha	Professor
150	Physical Education	Dr. Sanjib Mridha	Professor
151	Physical Education	Dr. Asish Paul	Asst. Professor
152	Physical Education	Dr. Atanu Ghosh	Asst. Professor
153	Physical Education	Dr. Papan Mondal	Asst. Professor

### Sanskrit

154	Sanskrit	Dr. Rita Chattopadhyay	Professor
155	Sanskrit	Dr. Lalita Sengupta	Professor
156	Sanskrit	Dr. Debarchana Sarkar	Professor
157	Sanskrit	Dr. Piyali Praharaj	Professor
158	Sanskrit	Dr. Tapan Sankar Bhattacharya	Professor
159	Sanskrit	Dr. Ashok Kumar Mahata	Asso. Professor
160	Sanskrit	Dr. Shiuli (Ghosh) Basu	Asst. Professor
161	Sanskrit	Dr. Kakali Ghosh	Asso. Professor
162	Sanskrit	Dr. Debdas Mandal	Asst. Professor

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163	Sanskrit	Dr. Chinmay Mandal	Asst. Professor
<b>Sociology</b>			
164	Sociology	Dr. Ruby Sain	Professor
165	Sociology	Dr. Dalia Chakraborty	Professor
166	Sociology	Dr. Amites Mukhopadhyay	Professor
167	Sociology	Smt. Nutan Marian Tigga	Asst. Professor
168	Sociology	Dr. Piyali Sur	Asso. Professor
<b>School of Women's Studies</b>			
169	School of Women's Studies	Dr. Samita Sen	Professor
170	School of Women's Studies	Dr. Aishika Chakraborty	Asso. Professor
171	School of Women's Studies	Dr. Nandita (Banerjee) Dhawan	Asst. Professor
<b>School of Cognitive Sc.</b>			
172	School of Cognitive Sc.	Dr. Amrita Basu	Asst. Professor

## ENGINEERING & TECHNOLOGY

SL	Dept.	Name	Designation	DOJ at JU	DoR 60	DoR 62
1	Mechanical	Dr. Sujit Ghoshal	<b>Professor</b>	20 4 1985	31 1 2016	
2	Mechanical	Dr. Sankar Dhar	<b>Professor</b>	8 7 1985	31 1 2016	
3	Mechanical	Dr. Simul Banerjee	<b>Professor</b>	30 9 1981	31 3 2016	
4	S. Ener Stud	Dr. Subhasis Neogi	<b>Professor</b>	17 12 1990	30 6 2016	
5	Chemical	Dr. Chandan Guha	<b>Professor</b>	6 7 1988	31 8 2016	
6	Comp. Sc.	Dr. Avijit Kar	<b>Professor</b>	1 10 1988	30 9 2016	
7	Civil	Dr. Somnath Ghosh	<b>Professor</b>	19 11 1982	31 1 2017	31 1 2019
8	Mechanical	Sri Goutam Nandi	<b>Associate Professor</b>	19 10 1982	28 2 2017	28 2 2019
9	Comp. Sc.	Dr. Mita Nasipuri	<b>Professor</b>	26 10 1987	28 2 2017	28 2 2019
10	ACEE	Dr. Tandra Mitra	<b>Professor</b>	4 6 1999	28 2 2017	28 2 2019
11	IEE	Dr. Bhaswati Goswami	<b>Professor</b>	8 11 1995	31 3 2017	31 3 2019
12	Civil	Dr. Sibapriya Mukherjee	<b>Professor</b>	2 4 1984	31 7 2017	31 7 2019
13	Comp. Sc.	Dr. Atal Chaudhuri	<b>Professor</b>	19 8 1985	30 9 2017	30 9 2019
14	Mechanical	Dr. Sadhan Kr. Ghosh	<b>Professor</b>	31 3 1984	31 10 2017	31 10 2019
15	Mechanical	Dr. Asish Bandyopadhyay	<b>Professor</b>	16 11 1987	30 11 2017	30 11 2019
16	Pharmacy	Dr. Tanmoy Bera	<b>Professor</b>	5 6 1992	31 12 2017	31 12 2019
17	FTBE	Dr. Uma Ghosh	<b>Professor</b>	13 12 2005	31 12 2017	31 12 2019
18	S.I.S.E.D.	Dr. Kamalika Ghosh	<b>Assistant Professor</b>	26 5 2014	31 12 2017	31 12 2019
19	Electrical	Dr. Abhijit Mukherjee	<b>Professor</b>	16 4 1984	31 1 2018	31 1 2020
20	Electrical	Dr. Sugata Munshi	<b>Professor</b>	11 9 1990	31 1 2018	31 1 2020
21	ETCE	Dr. Chayanika Bose	<b>Professor</b>	31 5 1999	31 1 2018	31 1 2020
22	ETCE	Dr. Subir Kumar Sarkar	<b>Professor</b>	10 8 1999	31 1 2018	31 1 2020
23	Electrical	Dr. Subrata Paul	<b>Professor</b>	28 6 1985	28 2 2018	28 2 2020
24	Mechanical	Dr. Tarun Kanti Naskar	<b>Professor</b>	19 10 1982	31 5 2018	31 5 2020
25	Electrical	Dr. Swapan Kumar	<b>Professor</b>	9 9 1987	30 6 2018	30 6 2020

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		<b>Goswami</b>										
26	Power	Dr. Bireswar Majumdar	<b>Professor</b>	5	12	1995	30	6	2018	30	6	2021
27	IEE	Dr. Subhankar	<b>Professor</b>	19	8	1985	31	7	2018	31	7	2020
		<b>Bandyopadhyay</b>										
28	Chemical	Dr. Prasanta Kumar Banerjee	<b>Associate Professor</b>	12	1	1990	31	7	2018	31	7	2020
29	Met & Mat	Dr. Subir Pal	<b>Professor</b>	16	9	1986	31	8	2018	31	8	2020
30	Civil	Dr. Somnath Mukherjee	<b>Professor</b>	10	7	1993	30	9	2018	30	9	2020
31	Production	Dr. Bijoy Bhattacharyya	<b>Professor</b>	5	3	1991	31	10	2018	31	10	2020
32	Pharmacy	Dr. Tarun Jha	<b>Professor</b>	5	6	1992	31	1	2019	31	1	2021
33	S. Ener Stud	Dr. Tushar Jash	<b>Associate Professor</b>	18	4	2002	31	1	2019	31	1	2021
34	IEE	Dr. Ardhendu Ghosal	<b>Professor</b>	3	4	1986	29	2	2019	29	2	2021
35	Pharmacy	Dr. Mrs. Jasmina Khanam	<b>Professor</b>	5	6	1992	29	2	2019	29	2	2021
36	Mechanical	Dr. Goutam Majumder	<b>Professor</b>	2	11	1989	31	3	2019	31	3	2021
37	Mechanical	Dr. Goutam Pohit	<b>Professor</b>	2	7	1990	31	3	2019	31	3	2021
38	Comp. Sc.	Dr..Chitrita Chaudhuri	<b>Associate Professor</b>	24	8	2001	31	3	2019	31	3	2021
39	Mechanical	Dr. Prabir Kumar De	<b>Professor</b>	31	3	1984	30	6	2019	30	6	2021
40	Electrical	Dr. (Mrs.) Saswati Mazumdar	<b>Professor</b>	8	6	1987	30	9	2019	30	9	2021
41	Architect	Dr. Shubhrajit Das	<b>Professor</b>	1	7	2008	31	10	2019	31	10	2021
42	Comp. Sc.	Dr. Chandan Majumdar	<b>Professor</b>	19	8	1985	30	11	2019	30	11	2021
43	Electrical	Dr. (Mrs.) Mita Dutta	<b>Professor</b>	28	6	1985	31	12	2019	31	12	2021
44	Mechanical	Dr. Dipak Laha	<b>Professor</b>	10	7	1987	31	12	2019	31	12	2021
45	Electrical	Sri Palash Kumar Kundu	<b>Associate Professor</b>	14	7	2001	31	12	2019	31	12	2021
46	Comp. Sc.	Dr. Debesh Kumar Das	<b>Professor</b>	31	7	1993	28	2	2020	Voluntary ret'd. We.f. 30.06.2018		
47	ETCE	Dr. Bhaskar Gupta	<b>Professor</b>	19	8	1985	31	3	2020	31	3	2022
48	Mechanical	Sri Ranajit Kumar Chakraborti	<b>Associate Professor</b>	2	3	1990	30	4	2020	30	4	2022
49	Mechanical	Dr. Dipten Misra	<b>Assistant Professor</b>	20	4	1985	30	6	2020	30	6	2022
50	Electrical	Dr. Kesab Bhattacharya	<b>Professor</b>	1	9	1990	30	6	2020	30	6	2022
51	Production	Sri Subir Kr. Debnath	<b>Associate Professor</b>	14	9	1985	31	12	2020	31	12	2022
52	Production	Dr. Bijan Sarkar	<b>Professor</b>	19	7	1985	31	1	2021	31	1	2023
53	Mechanical	Dr. Abhijit Mukhopadhyay	<b>Associate Professor</b>	1	7	1987	28	2	2021	28	2	2023
54	Construc	Dr. Subhajit Saraswati	<b>Professor</b>	14	6	1990	28	2	2021	28	2	2023
55	Mechanical	Dr. Kashinath Saha	<b>Associate Professor</b>	7	8	1987	31	3	2021	31	3	2023
56	S.W. R. Engg	Dr. Asis Majumder	<b>Professor</b>	4	10	1989	30	6	2021	30	6	2023
57	Pharmacy	Dr. Amalesh Samanta	<b>Professor</b>	2	5	2007	31	7	2021	31	7	2023
58	Comp. Sc.	Dr. Anupam Sinha	<b>Professor</b>	10	7	1989	31	8	2021	31	8	2023
59	Production	Dr. Ajoy Kumar Dutta	<b>Professor</b>	14	12	1989	30	9	2021	30	9	2023

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60	IEE	Dr. Rajib Bandyopadhyay	<b>Professor</b>	19	3	1990	30	9	2021	30	9	2023
61	Comp. Sc.	Dr. Mahantapas Kundu	<b>Professor</b>	5	7	1988	31	10	2021	31	10	2023
62	Civil	Sri Shibnath Chakrabarty	<b>Professor</b>	1	3	1991	31	10	2021	31	10	2023
63	Mechanical	Dr. Amit Karmakar	<b>Associate Professor</b>	31	12	1987	28	2	2022	28	2	2024
64	Architect	Dr. Jayita Guha Niyogi	<b>Professor</b>	1	7	2008	31	5	2022	31	5	2024
65	Civil	Dr. Arup Guha Niyogi	<b>Professor</b>	8	8	1990	31	7	2022	31	7	2024
66	Mechanical	Dr. Samar Chandra Mandal	<b>Professor</b>	31	5	1995	31	7	2022	31	7	2024
67	Electrical	Dr. Sivaji Chakravorti	<b>Professor</b>	28	6	1985	30	9	2022	30	9	2024
68	Civil	Dr. Amit Dutta	<b>Professor</b>	25	11	2009	30	11	2022	30	11	2024
69	Printing	Dr. Arun Kiran Pal	<b>Professor</b>	17	11	1990	31	11	2022	31	11	2024
70	Mechanical	Dr. Sandip Das	<b>Assistant Professor</b>	20	4	1985	31	12	2022	31	12	2024
71	ETCE	Dr. Amit Konar	<b>Professor</b>	19	8	1985	31	1	2023	31	1	2025
72	Architect	Dr. Tapas Kumar Bhattacharyya	<b>Professor</b>	1	12	1989	31	1	2023	31	1	2025
73	Mechanical	Dr. Dipankar Sanyal	<b>Professor</b>	17	8	1991	31	1	2023	31	1	2025
74	Mechanical	Dr. Snehangshu Mandal	<b>Associate Professor</b>	1	1	1996	31	1	2023	31	1	2025
75	Comp. Sc.	Dr. Nirmalya Chowdhury	<b>Professor</b>	26	7	2001	31	1	2023	31	1	2025
76	Mechanical	Dr. Snehamoy Majumder	<b>Professor</b>	15	7	1992	28	2	2023	28	2	2025
77	Pharmacy	Dr. Lakshmi Kanta Ghosh	<b>Professor</b>	5	6	1992	30	4	2023	30	4	2025
78	Civil	Dr. Ramendu Bikash Sahu	<b>Professor</b>	20	8	1990	31	5	2023	31	5	2025
79	FTBE	Dr. (Ms.) Runu Chakraborty	<b>Professor</b>	30	7	1991	31	5	2023	31	5	2025
80	Chemical	Dr. Ranjana Chowdhury	<b>Professor</b>	19	6	1993	30	6	2023	30	6	2025
81	Comp. Sc.	Dr. Sivaji Bandyopadhyay	<b>Professor</b>	11	7	1989	31	8	2023	31	8	2025
82	Mechanical	Dr. Sumanta Neogi	<b>Professor</b>	1	11	1989	31	8	2023	31	8	2025
83	Architect	Dr. Shivashish Bose	<b>Professor</b>	2	8	2004	31	8	2023	31	8	2025
84	Mechanical	Dr. Goutam Sutradhar	<b>Professor</b>	24	2	2005	31	8	2023	31	8	2025
85	Chemical	Dr. Ujjaini Sarkar	<b>Professor</b>	1	12	2000	30	9	2023	30	9	2025
86	Met & Mat	Dr. Pravash Chandra Chakraborti	<b>Professor</b>	24	1	1990	31	12	2023	31	12	2025
87	IEE	Dr. Bivas Dam	<b>Professor</b>	2	4	1990	31	12	2023	31	12	2025
88	Civil	Dr. Saroj Mondal	<b>Professor</b>	13	7	1991	31	12	2023	31	12	2025
89	Chemical	Dr. Debasish Putatunda	<b>Associate Professor</b>	11	8	1988	31	1	2024	Exp. On 12.01.18		
90	Mechanical	Dr. Rajat Shubra Sen	<b>Professor</b>	15	3	1994	28	2	2024	28	2	2026
91	IEE	Dr. Kalyan Majumdar	<b>Associate Professor</b>	13	8	1990	31	7	2024	31	7	2026
92	Production	Dr. Shankar Chakraborty	<b>Professor</b>	6	9	1993	31	7	2024	31	7	2026
93	Power	Dr. Niladri Chakraborty	<b>Professor</b>	1	3	1990	31	8	2024	31	8	2026
94	ETCE	Dr. Iti Saha Misra	<b>Professor</b>	19	3	1997	30	9	2024	30	9	2026
95	Electrical	Dr. (Mrs.) Suparna Kar Choudhury	<b>Professor</b>	31	8	1990	31	10	2024	31	10	2026
96	Printing	Dr. Swati Bandyopadhyay	<b>Associate Professor</b>	17	11	1990	31	10	2024	31	10	2026
97	IEE	Dr. Kumardeb Banerjee	<b>Professor</b>	11	6	1993	31	10	2024	31	10	2026

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98	IT	Dr. Samiran Chattopadhyay	<b>Professor</b>	16	8	1989	31 12 2024	31 12 2026
99	Power	Dr. Kamal Krishna Mondal	<b>Professor</b>	13	5	2002	31 12 2024	31 12 2026
100	IEE	Dr. Rajanikanta Mudi	<b>Professor</b>	1	12	1992	31 1 2025	31 1 2027
101	Mechanical	Dr. Buddhadev Oraon	<b>Professor</b>	9	5	1996	31 1 2025	31 1 2027
102	Construc	Dr. Gokul Ch. Mondal	<b>Associate Professor</b>	11	9	2001	31 1 2025	31 1 2027
103	Architect	Dr. Sanjib Nag	<b>Professor</b>	1	7	2008	28 2 2025	28 2 2027
104	Comp. Sc.	Dr. Sarmistha Neogy	<b>Professor</b>	9	10	2001	31 5 2025	31 5 2027
105	Construc	Dr. Debasish Bandyopadhyay	<b>Professor</b>	27	12	1997	30 6 2025	30 6 2027
106	Construc	Dr. Partha Pratim Biswas	<b>Professor</b>	21	1	1993	31 7 2025	31 7 2027
107	Mechanical	Dr. Sanjib Acharyya	<b>Professor</b>	9	9	1991	31 8 2025	31 8 2027
108	Pharmacy	Dr. Tapan Kumar Maity	<b>Professor</b>	4	12	2001	31 8 2025	31 8 2027
109	Comp. Sc.	Dr. Ujjwal Maulik	<b>Professor</b>	1	8	2003	31 8 2025	31 8 2027
110	Mechanical	Dr. Debasish Roy	<b>Professor</b>	23	9	1989	30 9 2025	30 9 2027
111	Production	Dr. Souren Mitra	<b>Professor</b>	6	9	1993	30 9 2025	30 9 2027
112	S. Edn Tech	Dr. Smt. Matangini Chatopadhyay	<b>Professor</b>	17	4	2002	30 9 2025	30 9 2027
113	Comp. Sc.	Dr. Nandini Mukhopadhyay	<b>Professor</b>	1	1	1992	31 10 2025	31 10 2027
114	Pharmacy	Dr. Biswajit Mukherjee	<b>Professor</b>	12	3	2002	31 10 2025	31 10 2027
115	Pharmacy	Dr. Subhash Chandra Mondal	<b>Professor</b>	4	8	1997	31 12 2025	31 12 2027
116	Mechanical	Dr. Somnath Bhattacharjee	<b>Associate Professor</b>	13	8	1993	31 1 2026	31 1 2028
117	Construc	Dr. Kaushik Bandyopadhyay	<b>Professor</b>	6	11	1995	31 1 2026	31 1 2028
118	ETCE	Dr. Mrinal Kanti Naskar	<b>Professor</b>	29	5	1999	28 2 2026	28 2 2028
119	Mechanical	Dr. Swarnendu Sen	<b>Professor</b>	1	11	1989	31 3 2026	31 3 2028
120	Mechanical	Dr. Arunava Chanda	<b>Professor</b>	2	9	1991	31 3 2026	31 3 2028
121	Power	Dr. Amitava Datta	<b>Professor</b>	16	8	1990	30 4 2026	30 4 2028
122	Electrical	Sri Madhab Roy	<b>Associate Professor</b>	1	7	1995	31 5 2026	31 5 2028
123	S. Edn Tech	Dr. Ranjan Parekh	<b>Associate Professor</b>	15	12	2000	31 7 2026	31 7 2028
124	Mechanical	Dr. Titas Nandi	<b>Professor</b>	10	9	2008	31 7 2026	31 7 2028
125	Mechanical	Dr. Debabrata Nag	<b>Associate Professor</b>	2	12	2002	31 8 2026	31 8 2028
126	Chemical	Dr. Chiranjib Bhattacharjee	<b>Professor</b>	24	6	1991	30 9 2026	30 9 2028
127	Electrical	Dr. Madhubanti Maitra	<b>Professor</b>	22	9	1993	30 9 2026	30 9 2028
128	Electrical	Dr. Arabinda Das	<b>Professor</b>	7	1	1999	30 9 2026	30 9 2028
129	Mechanical	Dr. Sudipta De	<b>Professor</b>	23	9	1991	31 10 2026	31 10 2028
130	Chemical	Dr. Kajari Kar Gupta	<b>Professor</b>	7	12	2007	30 11 2026	30 11 2028
131	Mechanical	Dr. Himadri Chattopadhyay	<b>Professor</b>	16	4	2007	31 1 2027	31 1 2029
132	Chemical	Dr. Debashis Roy	<b>Professor</b>	16	9	1998	30 6 2027	30 6 2029
133	Construc	Dr. Sayan Nandi	<b>Assistant Professor</b>	25	2	1994	31 11 2027	31 11 2029
134	Mechanical	Dr. Dulal Krishna Mandal	<b>Associate Professor</b>	4	9	2000	31 11 2027	31 11 2029
135	Chemical	Dr. Avijit Bhowal	<b>Professor</b>	12	6	1991	31 12 2027	31 12 2029
136	Met & Mat	Dr. Akshay K. Pramanick	<b>Professor</b>	11	6	1999	31 1 2028	31 1 2030

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137	Mechanical	Dr. Balaram Kundu	<b>Professor</b>	20	1	2003	31	1	2028	31	1	2030
138	Mechanical	Dr. Achintya Mukhopadhyay	<b>Professor</b>	2	12	1991	30	4	2028	30	4	2030
139	Comp. Sc.	Dr. Sanjoy Kumar Saha	<b>Professor</b>	17	8	2001	30	4	2028	30	4	2030
140	Power	Dr. Amitava Gupta	<b>Professor</b>	31	7	1997	30	6	2028	30	6	2030
141	Comp. Sc.	Dr. Susmita Ghosh (Nee De)	<b>Professor</b>	14	2	1997	31	7	2028	31	7	2030
142	Architect	Dr. Madhumita Roy	<b>Professor</b>	7	3	2001	31	7	2028	31	7	2030
143	Mechanical	Dr. Saikat Mookherjee	<b>Professor</b>	7	3	1994	30	9	2028	30	9	2030
144	Civil	Dr. Dipankar Chakraborty	<b>Professor</b>	16	1	1995	30	9	2028	30	9	2030
145	Civil	Dr. Gupinath Bhandari	<b>Associate Professor</b>	29	10	2009	30	9	2028	30	9	2030
146	Production	Dr. Biswanath Doloi	<b>Professor</b>	6	9	1993	31	10	2028	31	10	2030
147	Electrical	Dr. Biswanath Roy	<b>Professor</b>	17	11	2000	31	10	2028	31	10	2030
148	Electrical	Dr. Amitava Chatterjee	<b>Professor</b>	26	3	1997	30	11	2028	30	11	2030
149	Architect	Dr. Smt. Suchandra Bardhan	<b>Professor</b>	1	3	2001	31	11	2028	31	11	2030
150	Mechanical	Dr. Arghya Nandi	<b>Professor</b>	15	7	1993	31	12	2028	31	12	2030
151	Electrical	Dr. Mrs. Smita Sadhu (Ghosh)	<b>Professor</b>	2	12	1998	31	12	2028	31	12	2030
152	Pharmacy	Dr. Pulok Kr. Mukherjee	<b>Professor</b>	11	12	2001	31	12	2028	31	12	2030
153	Power	Dr. Apurba Kumar Santra	<b>Professor</b>	8	10	2002	31	12	2028	31	12	2030
154	Electrical	Dr. Debashis Chatterjee	<b>Professor</b>	24	4	2002	30	1	2029	30	1	2031
155	Mechanical	Dr. Abhijit Chanda	<b>Professor</b>	29	9	2000	31	1	2029	31	1	2031
156	Electrical	Dr. Nikhil Mondal	<b>Associate Professor</b>	27	12	2000	31	1	2029	31	1	2031
157	Power	Dr. Mousumi Basu	<b>Professor</b>	30	10	1995	31	3	2029	31	3	2031
158	ETCE	Dr. Palanikndavar Venkateswaran	<b>Professor</b>	15	10	2001	30	4	2029	30	4	2031
159	Mechanical	Dr. Prasanta Sahoo	<b>Professor</b>	16	9	1995	31	7	2029	31	7	2031
160	IEE	Dr. Ratna Ghosh	<b>Professor</b>	21	7	1997	31	10	2029	31	10	2031
161	ETCE	Dr. Sudipta Chattopadhyay	<b>Professor</b>	31	8	2006	30	11	2029	30	11	2031
162	Production	Dr. Debmalya Banerjee	<b>Professor</b>	12	3	1999	31	11	2029	31	11	2031
163	Printing	Dr. Pradip Kundu	<b>Assistant Professor</b>	29	12	2001	31	12	2029	31	12	2031
164	Printing	Dr. Kanai Ch. Paul	<b>Professor</b>	12	3	1999	31	1	2030	31	1	2032
165	Printing	Dr. Soumen Basak	<b>Associate Professor</b>	26	3	2001	28	2	2030	28	2	2032
166	Comp. Sc.	Dr. Jamuna Kanta Sing	<b>Professor</b>	10	3	1997	31	5	2030	31	5	2032
167	Production	Dr. Soumya Sarkar	<b>Professor</b>	6	3	1999	31	5	2030	31	5	2032
168	Civil	Dr. Partha Bhattacharya	<b>Professor</b>	28	2	2006	31	5	2030	31	5	2032
169	Mechanical	Sri Susenjit Sarkar	<b>Associate Professor</b>	10	12	2002	30	6	2030	30	6	2032
170	Chemical	Dr. Chanchal Mondal	<b>Associate Professor</b>	11	9	1998	30	9	2030	30	9	2032
171	Electrical	Dr. Biswajit Bhattacharyya	<b>Associate Professor</b>	19	12	2000	30	9	2030	30	9	2032
172	Mechanical	Dr. Nirmal Kumar Manna	<b>Associate Professor</b>	7	2	2007	28	2	2031	28	2	2033



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173Comp. Sc.	Dr. Debotosh Bhattacharjee	<b>Professor</b>	1	3	2007	31	5	2031	31	5	2033
174Pharmacy	Dr. Kunal Roy	<b>Professor</b>	15	1	2002	30	6	2031	30	6	2033
175Pharmacy	Dr. Sanmoy Karmakar	<b>Professor</b>	1	3	2007	30	6	2031	30	6	2033
176Comp. Sc.	Dr. Mridul Sankar Barik	<b>Assistant Professor</b>	22	8	2006	31	12	2031	31	12	2033
177Electrical	Dr. Ranjit Kr. Barai	<b>Professor</b>	18	1	1999	31	1	2032	31	1	2034
178Met & Mat	Dr. Rajib Dey	<b>Professor</b>	1	3	2005	31	1	2032	31	1	2034
179Civil	Sri. Pritam Aitch	<b>Associate Professor</b>	9	2	2005	31	3	2032	31	3	2034
180Electrical	Dr. (Ms.) Sudipta Debnath	<b>Professor</b>	7	3	2014	31	3	2032	31	3	2034
181Production	Dr. Arunansu Sekhar Kuar	<b>Professor</b>	22	3	1999	30	4	2032	30	4	2034
182Civil	Dr. Anupam Deb Sarkar	<b>Associate Professor</b>	20	4	1999	30	4	2032	30	4	2034
183FTBE	Dr. Paramita Bhattacharjee	<b>Associate Professor</b>	22	9	2009	31	7	2032	31	7	2034
184Mechanical	Dr. Koushik Ghosh	<b>Professor</b>	4	2	2002	31	10	2032	31	10	2034
185Comp. Sc.	Dr. Diganta Saha	<b>Professor</b>	17	8	2001	31	1	2033	31	1	2035
186Electrical	Dr. Biswendu Chatterjee	<b>Associate Professor</b>	11	7	2008	28	2	2033	28	2	2035
187ETCE	Dr. Sheli Murmu (Sinha Chaudhuri)	<b>Professor</b>	15	5	1999	30	4	2033	30	4	2035
188Mechanical	Dr. Rana Saha	<b>Professor</b>	14	1	2002	31	7	2033	31	7	2035
189ACEE	Dr. Partha Sarathi Chakraborty	<b>Associate Professor</b>	10	1	2005	31	10	2033	31	10	2035
190Civil	Dr. Subhasish Roy Choudhury	<b>Assistant Professor</b>	28	12	2006	31	10	2033	31	10	2035
191ETCE	Dr. Sudhabindu Ray	<b>Professor</b>	25	11	2009	31	12	2033	31	12	2035
192Power	Dr. Ranjan Ganguly	<b>Professor</b>	23	5	1997	31	1	2034	31	1	2036
193Chemical	Dr. Rajat Chakraborty	<b>Professor</b>	8	6	2007	31	1	2034	31	1	2036
194Electrical 12036	Dr. Arindam Kumar Sil	<b>Assistant Professor</b>	28		82009	31		12034	31		
195ACEE 52036	Sri Santwan Chattopadhyay	<b>Assistant Professor</b>	5		72004	31		52034	31		
196Met & Mat 82036	Dr. Sathi Banerjee (Nee Mallick)	<b>Assistant Professor</b>	14	3	2007	31		82034	31		
197FTBE 112036	Dr. Dipankar Halder	<b>Associate Professor</b>	5		12007	30		112034	30		
198Comp. Sc.	Dr. Kamal Sarkar	<b>Professor</b>	24	8	2001	31	1	2035	31	1	2037
199IT 12037	Dr. Parama Bhaumik	<b>Associate Professor</b>	14		112005	31		12035	31		
200S.W. R. Engg	Dr. Pankaj Kumar Roy	<b>Professor</b>	13	1	2014	31	1	2035	31	1	2037
201ETCE 2037	Dr. Ananda Shankar Chowdhury	<b>Professor</b>	29		122008	31		32035	31		3
202Power 42037	Dr. Debashis Palit	<b>Assistant Professor</b>	18		72008	30		42035	30		
203FTBE 42037	Dr. Prasanta Kumar Biswas	<b>Associate Professor</b>	29		12016	30		42035	30		



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204Pharmacy 72037	Dr. Pallab Kanti Halder	<b>Associate Professor</b>	2	32007 31	72035 31
205Electrical 92037	Dr. Gautam Sarkar	<b>Assistant Professor</b>	8	42002 30	92035 30
206Electrical 2037	Dr. Smt. Sunita Halder, nee Dey	<b>Professor</b>	9	4200230	9203530 9
207Power 112037	Dr. Gargi Konar	<b>Assistant Professor</b>	1	92006 30	112035 30
208IEE	Smt. (Ms.) Runu Banerjee	<b>Professor</b>	29 7	2005 31 11 2035	31 11 2037
209Mechanical	Dr. Subhas Chandra Panja	<b>Professor</b>	15 9	2009 31 12 2035	31 12 2037
210FTBE 122037	Dr. Debabrata Bera	<b>Assistant Professor</b>	23	122015 31	122035 31
211S. Ener Stud 22038	Dr. Ratan Mondal	<b>Associate Professor</b>	12	52003 28	22036 28
212IT	Dr. Bibhas Ch. Dhara	<b>Professor</b>	14 11	2005 31 3 2036	31 3 2038
213Chemical	Dr. Papita Das (Saha)	<b>Professor</b>	12 11	2013 30 4 2036	30 4 2038
214 <b>ETCE</b> <b>62038</b>	<b>Dr. Jaydeb Bhaumik</b>	<b>Associate Professor</b>	<b>23</b>	<b>11201730</b>	<b>6203630</b>
215Comp. Sc. 92039	Dr. Subhadip Basu	<b>Associate Professor</b>	13	72006 30	92036 30
216Production 102036 31	Sri Biplab Ranjan Sarkar	<b>Assistant Professor</b>	22		62005 31
217ETCE 3110 2038	Dr. Manotosh Biswas	<b>Professor</b>	30 7	2010	31 102036
218IEE 3111 2038	Dr. Bipan Tudu	<b>Professor</b>	5 12	2001	31 112036
219IT	Dr. Uttam Kumar Roy	<b>Assistant Professor</b>	14		32005 31
12037 31	1	2039			
220Electrical 12037 31	Dr. Sovan Dalai	<b>Associate Professor</b>	1		82006 31
221Comp. Sc. 42037 30	Dr. Sarbani Roy	<b>Associate Professor</b>	13		72006 30
222Civil 82037 31	Dr. Sumit Kr. Biswas	<b>Associate Professor</b>	24		22005 31
223S.Bio-Sc.Engg 92037 30	Dr. Monisha Chakraborty	<b>Associate Professor</b>	10		32005 30
224Chemical 122037 31	Dr. Ratna Dutta	<b>Assistant Professor</b>	18		122009 31
225Chemical 12038 31	Dr. Parama Ghoshal	<b>Assistant Professor</b>	30		122009 31
226Chemical 12038 31	Dr. Shyamal Roy	<b>Assistant Professor</b>	30		102013 31
227Mechanical 22038 28	Sri Nipu Modak	<b>Assistant Professor</b>	10		12007 28
228IT	Dr. Bhaskar Sardar	<b>Associate Professor</b>	6	122006 30	42038 30
42040					
229Mechanical	Dr. Prokash Chandra Roy	<b>Associate Professor</b>	15		92009 30

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42038 30	4	2040		
230S.Bio-Sc.Engg	Dr. Piyali Basak	<b>Assistant Professor</b>	11	1201030
42038 30	4	2040		
231Construc	Dr. Partha Ghosh	<b>Associate Professor</b>	22	6200530
62038 30	6	2040		
232Comp. Sc.	Dr. Ram Sarkar	<b>Assistant Professor</b>	30	4200830
62038 30	6	2040		
233Comp. Sc.	Dr. Chintan Kumar Mandal	<b>Assistant Professor</b>	18	3201430
62038 30	6	2040		
234Mechanical	Dr. Debabrata Das	<b>Associate Professor</b>	10	9200930
92038 30	9	2040		
235Chemical	Dr.Mehabub Rahaman	<b>Assistant Professor</b>	21	12200930
112038 30	11	2040		
236Comp. Sc.	Dr. Sudip Kumar Naskar	<b>Assistant Professor</b>	26	8201331
122038 31	12	2040		
237Power	Sri Subrata Mondal	<b>Assistant Professor</b>	1	2201631
122038 31	12	2040		
238Comp. Sc.	Dr. Anasua Sarkar	<b>Assistant Professor</b>	17	2201631
122038 31	12	2040		
239S.Mob. Comp	Dr. Punyasha Chatterjee	<b>Assistant Professor</b>	1	11201231
12039 31	1	2041		
240Architect	Dr. Debashish Das	<b>Associate Professor</b>	25	7200531
32039 31	3	2041		
241Printing	Dr. Arpitam Chatterjee	<b>Assistant Professor</b>	24	6200831
52039 31	5	2041		
242IEE	Dr. Prolay Sharma	<b>Assistant Professor</b>	12	4200830
62039 30	6	2041		
243Pharmacy	Dr. Ketousetuo Kuotsu	<b>Assistant Professor</b>	16	5200830
62039 30	6	2041		
244Pharmacy	Dr. Saikat Dewanjee	<b>Assistant Professor</b>	23	2200731
82039 31	8	2041		
245FTBE	Dr. Sunita Adhikary (nee Pramanik)	<b>Assistant Professor</b>	18	22016
3112 2039	31	12 2041		
246Civil	Dr. Sreyashi Das (nee Pal)	<b>Assistant Professor</b>	29	12200631
12040 31	1	2042		
247ETCE	Dr. Sayan Chatterjee	<b>Associate Professor</b>	17	1220092
22040 2	2	2042		
248S.Mat.Sc.&Nanotech	Sri Sourav Sarkar	<b>Assistant Professor</b>	25	10201729
22040 29	2	2042		
249Electrical	Dr. Debanghsu Dey	<b>Assistant Professor</b>	18	8200930
42040 30	4	2042		
250Mechanical	Dr. Anindya Sundar Das	<b>Assistant Professor</b>	16	5201430
42040 30	4	2042		
251Comp. Sc.	Dr. Chandreyee Chowdhury	<b>Assistant Professor</b>	20	9200631
52040 31	5	2042		
252Civil	Sri Santosh Kr. Das	<b>Assistant Professor</b>	21	1201630
62040 30	6	2042		
253Architect	Dr. Mainak Ghosh	<b>Associate Professor</b>	11	8201730
62040 30	6	2042		

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254Civil 102040 31	Dr. Tumpa Hazra 10	<b>Assistant Professor</b> 2042	4	1201031
255Electrical 122040 31	Dr. Susanta Ray 12	<b>Assistant Professor</b> 2042	7	10200931
256S.W. R. Engg 122040 31	Mr. Subhasish Das 12	<b>Assistant Professor</b> 2042	13	1201431
257S.Mat.Sc.&Nanotech 122040 31	Dr. Chandan Kumar Ghosh 12	<b>Assistant Professor</b> 2042	20	9201731
258Mechanical 22041 28	Sri Sudip Simlandi 2	<b>Assistant Professor</b> 2043	29	4200828
<b>259Electrical 282 2041</b>	<b>Dr. Sayantan Chakraborty</b> <b>28</b>	<b>Assistant Professor</b> <b>2043</b>	<b>17</b>	<b>112017</b>
260Comp. Sc. 42041 30	Dr. Nibaran Das 4	<b>Assistant Professor</b> 2043	14	7200630
261S.Mob. Comp 62041 30	Smt. Arpita Sarkar 6	<b>Assistant Professor</b> 2043	29	8201230
262Mechanical 102041 31	Dr Tapan Kr. Barman 10	<b>Associate Professor</b> 2043	9	4200831
263Electrical 32042 31	Dr. Suddhasatwa Chakraborty 3	<b>Assistant Professor</b> 2044	22	8200831
264Civil 42042 30	Dr. Kalyan Kr. Mondal 4	<b>Associate Professor</b> 2044	2	4200730
265Chemical 92042 30	Dr. Sudeshna Saha 9	<b>Assistant Professor</b> 2044	9	12201330
266Mechanical 102042 31	Sri Tanmoy Bandyopadhyay 10	<b>Assistant Professor</b> 2044	11	8201731
267Power 112042 30	Sri Bhimsen Tudu 11	<b>Assistant Professor</b> 2044	3	7200830
268Met & Mat 122042 31	Dr. Amrita Kundu 12	<b>Assistant Professor</b> 2044	1	2201431
269Comp. Sc. 32043 31	Dr. Dipankar Das 3	<b>Assistant Professor</b> 2045	1	4201431
270Construc 62043 30	Dr. Manoj Kumar Sahis 6	<b>Assistant Professor</b> 2045	11	9200930
271Electrical 62043 30	Sri Dipten Maity 6	<b>Assistant Professor</b> 2045	14	3201430
272Mechanical 72043 31	Dr. Anirban Mitra 7	<b>Assistant Professor</b> 2045	5	5201431
273IT 82044 31	Dr. Kartick Chandra Mondal 8	<b>Assistant Professor</b> 2046	24	2201431
274S.I.S.E.D. 22045 28	Parthasarathi Satvaya 2	<b>Assistant Professor</b> 2047	10	3201628
<b>275Electrical 282 2045</b>	<b>Sri Arpan Kumar Pradhan</b> <b>28</b>	<b>Assistant Professor</b> <b>2047</b>	<b>3</b>	<b>52018</b>
276Mechanical 82045 31	Dr. Suman Kalyan Das 8	<b>Assistant Professor</b> 2047	16	4201431
277ETCE 112045 30	Dr. Chandrima Mondal 11	<b>Assistant Professor</b> 2047	20	11201330
278Mechanical	Mr.Pranibesh Mandal 11	<b>Assistant Professor</b>	20	1201431

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12046 31	1	2048		
279Mechanical	Dr. Shouvik Ghosh	<b>Assistant Professor</b>	1	8201728
22046 28	2	2048		
280Civil	Sri. Amit Shiuly	<b>Assistant Professor</b>	28	1201630
42046 30	4	2048		
281Printing	Smt. Shilpi Naskar	<b>Assistant Professor</b>	23	7200831
52046 31	5	2048		
282IEE	Mr. Abhijit Chandra	<b>Assistant Professor</b>	6	8201431
82046 31	8	2048		
283Mechanical	Sri Siddhartha Patra	<b>Assistant Professor</b>	10	4201431
102046 31	10	2048		
284Electrical	Dr. Ayan Kumar Tudu	<b>Assistant Professor</b>	26	7201030
42047 30	4	2049		
285IEE	Mr. Ravi Kumar Pandit	<b>Assistant Professor</b>	21	4201431
72047 31	7	2049		
286Architect	Ms Sanghamitra Sarkar	<b>Assistant Professor</b>	9	11201531
72047 31	7	2049		
287Civil	Sri Narayan Roy	<b>Assistant Professor</b>	23	2201631
72047 31	7	2049		
<b>288Architect</b>	<b>Ms.Dechen Donka Bhutia</b>	<b>Assistant Professor</b>	<b>14</b>	<b>112017</b>
<b>3011 2047</b>	<b>30</b>	<b>11 2049</b>		
289Chemical	Ms. Sujata Sardar	<b>Assistant Professor</b>	28	10201529
22048 29	2	2050		
<b>290Electrical</b>	<b>Sri Mihir Hembram</b>	<b>Assistant Professor</b>	<b>15</b>	<b>122017</b>
<b>304 2048</b>	<b>30</b>	<b>4 2050</b>		
<b>291IT Tohida Rehman</b>	<b>Assistant Professor</b>	<b>21 22018</b>	<b>30</b>	<b>62048</b>
<b>306 2050</b>				
292ETCE	Smt. Pratyusha Rakshit	<b>Assistant Professor</b>	27	11201530
92048 30	9	2050		
293Printing	Ms. Mahasweta Mandal	<b>Assistant Professor</b>	25	8201531
12049 31	1	2051		
294Electrical	Ms. Madhumita Mandal	<b>Assistant Professor</b>	28	2201428
22049 28	2	2051		
295Mechanical	Sri Sourav Sarkar	<b>Assistant Professor</b>	29	6201730
92049 30	9	2051		
296Mechanical	Sri Hareram Lohar	<b>Assistant Professor</b>	7	8201730
42050 30	4	2052		
297ETCE	Sri Nirmoy Modak	<b>Assistant Professor</b>	4	1201631
102050 31	10	2052		

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### SCIENCE

Sl. No.	Deptt	Name of the Teachers	SX	Pre Desg
1	Chemistry	Dr. Ambikesh Mahapatra	M	Professor
2	Chemistry	Dr. Asok Kumar Mallik	M	Professor
3	Chemistry	Dr. Chittaranjan Sinha	M	Professor
4	Chemistry	Dr. Kalyan Kumar Das	M	Professor
5	Chemistry	Dr. Mahammad Ali	M	Professor
6	Chemistry	Dr. Nitin Chattopadhyay	M	Professor
7	Chemistry	Dr. Rina Ghosh	F	Professor
8	Chemistry	Dr. Samaresh Bhattacharya	M	Professor
9	Chemistry	Dr. Subhash Chandra Bhattacharyya	M	Professor
10	Chemistry	Dr. Subrata Mukhopadhyay	M	Professor
11	Chemistry	Dr. Swapam kumar Bhattacharya	M	Professor
12	Chemistry	Dr. Somnath Ghosh	M	Professor
13	Chemistry	Dr. Biplab Bhattacharjee	M	Asso. Prof
14	Chemistry	Dr. Gourhari Maiti	M	Professor
15	Chemistry	Dr. Jnan Prakash Naskar	M	Professor
16	Chemistry	Dr. Kajal Krishna Rajak	M	Professor
17	Chemistry	Dr. Kausikisankar Pramanik	M	Professor
18	Chemistry	Dr. Pradip Kr. Mahapatra	M	Asso. Prof
19	Chemistry	Dr. Sanjay Bhar	M	Professor
20	Chemistry	Dr. Subrata Nath Koner	M	Professor
21	Chemistry	Dr. Sujay Baitalik	M	Professor
21	Chemistry	Dr. Kalyan Kumar Mukherjea	M	Professor
22	Chemistry	Dr. Soumen Ghosh	M	Professor
23	Chemistry	Dr. Umasish Jana	M	Asso. Prof
24	Chemistry	Dr. Umesh Chandra Halder	M	Professor
25	Chemistry	Dr. Chandan Kumar Mondal	M	Professor
26	Chemistry	Dr. Arup Gayen	M	Asstt. Prof
27	Chemistry	Dr. Suman Das	M	Asstt. Prof
28	Chemistry	Dr. Partha Pratim Parui	M	Asstt. Prof
29	Chemistry	Dr. Tanurima Bhaumik	F	Asstt. Prof
30	Chemistry	Dr. Saubhik Haldar	M	Asstt. Prof
31	Chemistry	Dr. Debajyoti Ghoshal	M	Asstt. Prof
32	Chemistry	Dr. Sourav Das	M	Asso. Prof
33	Chemistry	Dr. Partha Ray	M	Asstt. Prof
34	Chemistry	Dr. Shouvik Chattopadhyay	M	Asstt. Prof
35	Chemistry	Dr. Amrita Saha	F	Asstt. Prof
36	Chemistry	Dr. Tapan Kr. Mondal	M	Asstt. Prof
37	Chemistry	Sri. Bhibhuti Bhusan Show	M	Asstt. Prof
38	Physics	Dr. Argha Deb	M	Professor
39	Physics	Dr. Sujata Tarafder	F	Professor
40	Physics	Dr. Aparajita Bhattacharyya	F	Professor
41	Physics	Dr. Ajay Kumar Ghosh	M	Professor
42	Physics	Dr. Asim Kumar Ghosh	M	Professor

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Sl. No.	Deptt	Name of the Teachers	SX	Pre Desg
43	Physics	Dr. Avijit Mukherjee	M	Asso. Prof
44	Physics	Dr. Basudev Ghosh	M	Professor
45	Physics	Dr. Brajadulal Chattopadhyay	M	Professor
46	Physics	Dr. Debasish Biswas	M	Professor
47	Physics	Dr. Debasish Lohar	M	Professor
48	Physics	Dr. Kalyan Kr. Chattopadhyay	M	Professor
49	Physics	Dr. Mridul Bose	M	Professor
50	Physics	Dr. Ruma Ray	F	Professor
51	Physics	Dr. Subhankar Ray	M	Asso. Prof
52	Physics	Dr. Sukhen Das	M	Professor
53	Physics	Dr. Sulava Bhattacharyya	F	Asso. Prof
54	Physics	Dr. Tapas Kr. Ballabh	M	Asso. Prof
55	Physics	Dr. Tapas Ranjan Middy	M	Professor
55	Physics	Dr. Nabin Baran Manik	M	Professor
56	Physics	Dr. Dhruva Banerjee	M	Asstt. Prof
57	Physics	Dr. Dipankar Mandal	M	Asstt. Prof
58	Physics	Dr. Puspendu Sahu	M	Asstt. Prof
59	Physics	Dr. Subrata Sarkar	M	Asstt. Prof
60	Physics	Mr. Abiral Tamang	M	Asstt. Prof
61	Physics	Dr. Sk. Saiyad Ali	M	Asstt. Prof
62	Physics	Dr. Bharati Tudu	F	Asstt. Prof
63	Physics	Dr. Subhadipta Mukhopadhyay	M	Asstt. Prof
64	Physics	Dr. Jayoti Das	F	Asso. Prof
65	Physics	Dr. Pabitra Kumar Paul	M	Asso. Prof
66	Physics	Dr. Partha Pratim Ray	M	Asstt. Prof
67	Physics	Dr. Sanjoy Kumar	M	Asso. Prof
68	Physics	Dr. Sarmistha Mandal	F	Asstt. Prof
69	Physics	Sri. Sanat Karmakar	M	Asstt. Prof
70	Physics	Dr. Joydeep Chowdhury	M	Asso. Prof
71	Physics	Dr. Abhijit Samanta	M	Asstt. Prof
72	Physics	Dr. Saikat Kumar Seth	M	Asstt. Prof
73	Physics	Dr. Mitali Mondal	F	Asso. Prof
74	Physics	Sri Soumen Mondal	M	Asstt. Prof
75	Maths	Dr. Ashis Kr. Sarkar	M	Professor
76	Maths	Dr. Sudeshna Banerjea	F	Professor
77	Maths	Dr. Prabir Kumar Kundu	M	Professor
78	Maths	Dr. Prakash Ch. Mali	M	Professor
79	Maths	Dr. Shamik Ghosh	M	Professor
80	Maths	Dr. Subenoy Chakraborty	M	Professor
81	Maths	Dr. Abhijit Lahiri	M	Professor
82	Maths	Dr. Anup Bandyopadhyay	M	Professor
83	Maths	Dr. Arindam Bhattacharyya	M	Professor
84	Maths	Dr. Bibhas Ch. Giri	M	Professor
85	Maths	Dr. Dipak Kr. Kesh	M	Professor
86	Maths	Dr. Farook Rahaman	M	Professor

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Sl. No.	Deptt	Name of the Teachers	SX	Pre Desg
87	Maths	Dr. Kallol Paul	M	Professor
88	Maths	Dr. Nandadulal Bairagi	M	Professor
89	Maths	Dr. Narayan Ch. Majee	M	Asso. Prof
90	Maths	Dr. Pratulananda Das	M	Professor
91	Maths	Dr. Priti Kumar Roy	M	Professor
92	Maths	Dr. Sagnik Sinha	M	Asso. Prof
93	Maths	Dr. Subhas Ch. Mondal	M	Professor
94	Maths	Dr. Sujit Kumar Sardar	M	Professor
95	Maths	Dr. Swapna Debnath	F	Asso. Prof
96	Maths	Dr. Indranath Sengupta	M	Asso. Prof
97	Maths	Sri. Buddhadeb Sau	M	Asso. Prof
98	Maths	Dr. Manasi Mandal	F	Asstt. Prof
99	Maths	Dr. Sukhendu Kar	M	Asstt. Prof
100	Maths	Smt. Nilanjana Mahata	F	Asstt. Prof
101	Maths	Sri Santosh Biswas	M	Asstt. Prof
102	Maths	Dr. Alaka Das	F	Professor
103	Maths	Dr. Gopal Chandra Shit	M	Asstt. Prof
104	Geology	Dr. Nibir Mondal	M	Professor
105	Geology	Dr. Pulak Sengupta	M	Professor
106	Geology	Dr. Sisir Kanti Nag	M	Professor
107	Geology	Dr. Subir Mukhopadhyay	M	Professor
108	Geology	Dr. Dipak Ch Pal	M	Asso. Prof
109	Geology	Dr. Sanjay Sanyal	M	Professor
110	Geology	Dr. Sisir Kanti Mondal	M	Professor
111	Geology	Dr. Subir Sarkar	M	Professor
112	Geology	Dr. Subrata Karmakar	M	Professor
113	Geology	Dr. Supriya Mondal	M	Asso. Prof
114	Geology	Dr. Anupam Ghosh	M	Asstt. Prof
115	Geology	Dr. Sadhana M. Chatterjee	F	Asstt. Prof
116	Geology	Dr. Susanta Kr. Samanta	M	Professor
117	Geology	Dr. Babar Ali Shah	M	Asstt. Prof
118	Geology	Smt Sunipa Mandal	F	Asstt. Prof
119	Geology	Sri Tridib Kumar Mondal	M	Asstt. Prof
120	Geology	Dr. Susanta Chaudhuri	M	Asstt. Prof
121	Geology	Dr. Debasish Shome	M	Professor
121	Geology	Dr. Tapan Kumar Baidya	M	Professor
121	Geology	Dr. Soumik Mukhopadhyay	M	Asstt. Prof
122	Lf. Sc. Biotech	Dr. Ratan Gachhui	M	Professor
123	Lf. Sc. Biotech	Dr. Parimal Karmakar	M	Professor
124	Lf. Sc. Biotech	Dr. Biswadip Das	M	Professor
125	Lf. Sc. Biotech	Dr. Paltu Kumar Dhal	M	Asstt. Prof
126	Inst. Sc.	Dr. Radhaballabh Bhar	M	Professor
127	Inst. Sc.	Dr. Anup Kr. Ghosh	M	Asstt. Prof
128	Inst. Sc.	Dr. Sankar Narayan Patra	M	Asstt. Prof
129	Inst. Sc.	Dr. Sachindranath Das115	M	Asstt. Prof
130	Geography	Dr. Lakshmi Sivaramakrishnan	F	Professor
Sl. No.	Deptt	Name of the Teachers	SX	Pre Desg



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131	Geography	Dr. Debajit Dutta	M	Asstt. Prof
132	ScI Oceano. Std.	Dr. Sugata Hazra	M	Professor
132	ScI Oceano. Std.	Dr. Goutam Kumar Sen	M	Professor
133	ScI Oceano. Std.	Dr. Tuhin Ghosh	M	Asso. Prof
134	Env. Science	Dr. Joydeep Mukherjee	M	Asso. Prof
135	Env. Science	Dr. Tarit Roychowdhury	M	Asso. Prof

STUDENT PROFILE

TOTAL STUDENT STRENGTH OF THE UNIVERSITY 2016-17 (CATEGORY-WISE)

CHART I

Faculty	Total Students Strength	General		SC		ST		OBC-A		OBC-B		Sports/ QIP		Total	
		M	F	M	F	M	F	M	F	M	F	M	F	M	F
FACULTY OF ARTS	3730	885	1561	477	441	92	90	46	26	47	45	6	14	1552	2178
FACULTY OF ENGG. & TECH.	5492	3390	497	976	161	208	47	119	4	71	11	7	1	4776	716
FACULTY OF ISLM	403	209	127	40	14	6	0	2	1	1	3	0	0	258	145
FACULTY OF SCIENCE	1427	680	326	215	89	32	11	25	9	22	9	7	2	980	447
<b>TOTAL</b>	<b>11052</b>	<b>5164</b>	<b>2511</b>	<b>1708</b>	<b>705</b>	<b>338</b>	<b>148</b>	<b>192</b>	<b>40</b>	<b>141</b>	<b>68</b>	<b>20</b>	<b>17</b>	<b>7566</b>	<b>3486</b>

CHART I : CONTD.

PD*		Minority*		Foreign*		Other State*	
M	F	M	F	M	F	M	F
30	11	41	25	6	8	73	84
76	4	160	11	31	9	1011	108
2	0	13	6	0	0	25	8
14	4	45	8	1	0	10	10
<b>122</b>	<b>19</b>	<b>259</b>	<b>50</b>	<b>38</b>	<b>17</b>	<b>1119</b>	<b>210</b>

\* NOTE :- The figures appearing in PD, Minority, Foreign and Other State are already included in the total column.

\* NOTE :- No Third Gender has been admitted in the session 2016-17.

**Annual Report 2016-17**

**CHART II : Faculty of Arts (Session : 2016-17)**

Departments	Courses	Total Students Strength	General		SC		ST		OBC-A		OBC-B		Sports/ QIP		Total	Total
			M	F	M	F	M	F	M	F	M	F	M	F	Male	Female
<b>ARTS</b>																
Bengali	UG	178	34	65	21	30	4	4	4	5	1	8	2	0	66	112
Bengali	PG	143	49	43	20	18	3	3	0	1	2	4	0	0	74	69
Bengali	M.Phil	32	14	7	4	4	1	1	0	1	0	0	0	0	20	12
Bengali	PG (EVE.)	97	31	36	18	4	2	3	2	0	1	0	0	0	54	43
Comparative Literature	UG	164	29	91	13	15	4	5	2	0	5	0	0	0	53	111
Comparative Literature	PG	90	15	62	2	6	1	2	1	0	1	0	0	0	20	70
Comparative Literature	M.Phil	32	7	18	2	4	0	1	0	0	0	0	0	0	9	23
Economics	UG	188	48	81	16	27	4	1	1	0	3	3	2	2	74	114
Economics	PG	109	29	54	6	15	1	2	0	1	0	0	0	1	36	73
Economics	M.Phil	21	5	14	1	1	0	0	0	0	0	0	0	0	6	15
English	UG	178	30	82	16	26	4	6	2	1	5	5	0	1	57	121
English	PG	128	41	56	7	17	3	2	0	1	0	1	0	0	51	77
English	M.Phil	31	10	11	2	4	0	2	1	0	1	0	0	0	14	17
Philosophy	UG	181	44	69	26	20	4	5	4	2	1	3	0	3	79	102
Philosophy	PG	121	30	53	18	11	3	1	2	1	0	2	0	0	53	68
Philosophy	M.Phil	36	2	20	7	6	1	0	0	0	0	0	0	0	10	26
Cognitive Science	M.Phil	20	3	8	5	3	0	0	1	0	0	0	0	0	9	11
Sanskrit	UG	167	31	67	27	30	3	2	2	0	1	3	0	1	64	103
Sanskrit	PG	126	18	58	19	25	2	1	1	0	2	0	0	0	41	85
Sanskrit	M.Phil	26	10	5	6	1	1	1	0	1	0	1	0	0	17	9
Sanskrit	PG (EVE.)	87	28	21	27	8	1	0	0	1	0	1	0	0	56	31
International Relations	UG	185	45	73	19	23	5	7	6	1	2	1	0	3	77	108
International Relations	PG	127	29	60	14	11	4	6	0	1	2	0	0	0	49	78

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**CHART II Contd. : CHART II : Faculty of Arts (Session : 2016-17)**

			M	F	M	F	M	F	M	F	M	F	M	F	Male	Female
International Relations	M.Phil	32	5	14	5	3	0	3	2	0	0	0	0	0	12	20
History	UG	184	44	73	20	21	8	5	3	3	1	5	1	0	80	104
History	PG	98	38	37	11	7	2	1	1	0	1	0	0	0	53	45
History	M.Phil	37	9	19	3	3	2	0	1	0	0	0	0	0	15	22
History	PG (EVE.)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sociology	UG	82	12	45	3	11	1	3	0	2	1	1	0	3	17	65
Sociology	PG	58	4	35	4	8	1	5	0	0	1	0	0	0	9	49
Sociology	M.Phil	30	2	17	3	3	0	3	0	1	0	1	0	0	5	25
Education	UG	192	32	85	27	29	6	5	3	1	3	1	0	0	71	121
Education	PG	88	22	35	10	13	4	1	0	0	2	0	1	0	39	49
Education	M.Phil	33	11	10	4	3	1	1	0	1	2	0	0	0	16	17
Lib. & Inf. Science	UG	69	13	32	13	9	0	2	0	0	0	0	0	0	26	43
Lib. & Inf. Science	PG	16	2	8	2	2	0	1	0	0	1	0	0	0	4	12
Lib. & Inf. Science (Digital Library)	PG	28	10	12	4	1	1	0	0	0	0	0	0	0	15	13
FILM STUDIES	PG	51	27	18	3	2	1	0	0	0	0	0	0	0	31	20
Physical Education	UG	99	19	8	39	5	9	2	6	1	7	3	0	0	80	19
Yoga Therapy	PG	25	9	8	5	2	0	1	0	0	0	0	0	0	14	11
Physical Education	PG	79	30	13	22	6	4	2	1	0	1	0	0	0	58	21
Linguistics	PG	41	9	27	0	4	0	0	0	0	0	1	0	0	9	32
Linguistics	M.Phil	21	5	11	3	0	1	0	0	0	0	1	0	0	9	12
<b>Total</b>		<b>3730</b>	<b>885</b>	<b>1561</b>	<b>477</b>	<b>441</b>	<b>92</b>	<b>90</b>	<b>46</b>	<b>26</b>	<b>47</b>	<b>45</b>	<b>6</b>	<b>14</b>	<b>1552</b>	<b>2178</b>

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CHART II : CONTD.

PD*		Minority*		Foreign*		Other State*	
M	F	M	F	M	F	M	F
6	0	1	1	0	0	1	1
6	1	3	1	0	0	3	0
0	0	0	0	0	0	0	0
0	1	7	0	0	0	0	0
0	0	2	0	0	0	0	2
0	0	1	0	0	0	0	0
1	0	0	0	0	0	0	0
0	1	2	0	1	1	6	6
1	0	0	1	1	1	3	4
0	0	0	0	0	0	0	1
0	0	0	1	0	0	3	5
0	2	2	0	0	0	10	15
1	0	0	0	0	0	0	0
2	1	0	1	0	1	1	5
2	0	3	3	0	0	2	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	2	1	0	0	1	3
1	0	0	0	0	0	1	1
0	0	0	0	0	0	0	0
0	0	1	2	0	0	0	0
2	0	3	0	1	1	6	8
3	0	2	0	1	1	3	1
0	0	0	0	0	0	0	0

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**CHART II : CONTD.**

PD*		Minority*		Foreign*		Other State*	
<b>M</b>	<b>F</b>	<b>M</b>	<b>F</b>	<b>M</b>	<b>F</b>	<b>M</b>	<b>F</b>
2	0	3	4	1	0	3	1
1	0	1	1	0	1	3	7
0	0	0	1	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	1	1	0	1	2
0	0	0	1	0	0	4	2
0	0	0	0	0	0	0	0
1	4	2	2	0	0	2	10
0	0	3	2	0	0	2	1
0	0	0	0	0	0	0	0
0	1	0	1	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0
0	0	0	0	0	1	5	4
0	0	1	0	0	0	8	0
0	0	0	0	0	0	0	0
1	0	2	1	0	0	4	2
0	0	0	0	0	1	1	1
0	0	0	0	0	0	0	2
<b>30</b>	<b>11</b>	<b>41</b>	<b>25</b>	<b>6</b>	<b>8</b>	<b>73</b>	<b>84</b>

\* NOTE :- The figures appearing in PD, Minority, Foreign and Other State are already included in the total column.

\* NOTE :- No Third Gender has been admitted in the session 2016-17.

**Annual Report 2016-17**  
**CHART III : FACULTY OF ENGG. & TECH. (2016-17)**

Departments	Courses	Total Students Strength	General		SC		ST		OBC-A		OBC-B		Sports/ QIP		Total	Total
			M	F	M	F	M	F	M	F	M	F	M	F	Male	Female
Architecture	UG	167	77	47	28	11	1	3	0	0	0	0	0	0	106	61
Architecture	PG	14	4	6	1	3	0	0	0	0	0	0	0	0	5	9
Chemical Engg.	UG	375	217	38	63	15	19	6	10	0	5	1	1	0	315	60
Chemical Engg.	PG	32	19	8	5	0	0	0	0	0	0	0	0	0	24	8
Bioprocess Engg.	PG	12	3	6	1	2	0	0	0	0	0	0	0	0	4	8
Civil Engineering	UG	462	303	9	92	5	29	3	14	0	7	0	0	0	445	17
Civil Engineering	PG	41	28	2	9	0	2	0	0	0	0	0	0	0	39	2
Civil Engineering	UG (Eve.)	191	126	16	39	4	1	0	3	0	1	1	0	0	170	21
Computer Sc.& Engg.	UG	285	178	13	53	8	11	3	10	1	6	0	2	0	266	19
Computer Sc. & Engg.	PG	45	26	4	9	4	1	1	0	0	0	0	0	0	36	9
Computer Sc. & Engg. (MCA)	PG	99	58	26	7	4	3	0	0	1	0	0	0	0	68	31
Computer Sc. & Engg. (M.Tech)	PG	81	40	23	12	5	0	1	0	0	0	0	0	0	52	29
Construction Engg.	UG	149	99	2	32	2	6	0	5	0	3	0	0	0	145	4
Construction Engg.	PG	54	32	10	9	3	0	0	0	0	0	0	0	0	41	13
Electrical Engineering	UG	448	281	25	92	3	21	5	11	1	7	1	1	0	413	35
Electrical Engineering	PG	47	34	3	6	1	3	0	0	0	0	0	0	0	43	4
Electrical Engg. (Control System)	PG	27	13	6	4	3	1	0	0	0	0	0	0	0	18	9
Electrical Engg. (Illumination)	PG	32	21	4	3	2	1	1	0	0	0	0	0	0	25	7
Electrical Engineering	UG (Eve.)	139	104	10	17	1	5	0	0	0	2	0	0	0	127	12
ETCE	UG	285	169	19	48	9	18	5	8	1	6	1	0	1	249	36
ETCE	PG	35	17	8	6	3	1	0	0	0	0	0	0	0	24	11
ETCE (VLSI)	PG	43	19	16	6	0	0	2	0	0	0	0	0	0	25	18
ETCE (Robotics)	PG	46	22	14	7	2	1	0	0	0	0	0	0	0	30	16
FTBE (B.E.)	UG	120	65	16	19	10	2	2	4	0	1	1	0	0	91	29
FTBE	PG	13	4	5	1	3	0	0	0	0	0	0	0	0	5	8



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**CHART III : CONTD.**

			M	F	M	F	M	F	M	F	M	F	M	F	Male	Female
Information Technology	UG	280	168	26	43	15	12	1	9	0	6	0	0	0	238	42
Information Tech. (Software Engg.)	PG	35	16	13	4	1	1	0	0	0	0	0	0	0	21	14
Information Tech. (Software Engg.) TCS	PG	32	26	6	0	0	0	0	0	0	0	0	0	0	26	6
IEE (B.E.)	UG	176	107	12	34	5	7	4	4	0	3	0	0	0	155	21
IEE (B.Tech.)	UG	36	27	5	4	0	0	0	0	0	0	0	0	0	31	5
IEE	PG	10	5	1	2	1	1	0	0	0	0	0	0	0	8	2
Mechanical Engineering	UG	475	322	2	100	0	28	1	14	0	8	0	0	0	472	3
Mechanical Engineering	PG	43	33	2	7	0	1	0	0	0	0	0	0	0	41	2
Mechanical Engg. (Automobile Engg.)	PG	11	9	0	2	0	0	0	0	0	0	0	0	0	11	0
Mechanical Engineering	UG (Eve.)	168	116	6	36	4	0	0	3	0	3	0	0	0	158	10
Metallurgical Engineering	UG	139	89	8	27	2	4	1	3	0	3	1	1	0	127	12
Metallurgical Engineering	PG	13	10	1	2	0	0	0	0	0	0	0	0	0	12	1
Metallurgical Engg.(Material Engg.)	PG	29	24	3	2	0	0	0	0	0	0	0	0	0	26	3
Pharmacy	UG	229	116	30	46	14	4	4	7	0	5	1	2	0	180	49
Pharmacy	PG	36	16	14	4	2	0	0	0	0	0	0	0	0	20	16
Pharmacy (Clinical Pharmacy)	PG	10	3	7	0	0	0	0	0	0	0	0	0	0	3	7
Power Engineering	UG	180	119	4	34	4	11	0	5	0	1	2	0	0	170	10
Power Engineering	PG	31	22	3	4	2	0	0	0	0	0	0	0	0	26	5
Printing Engineering	UG	105	62	7	20	4	5	0	4	0	2	1	0	0	93	12
Printing Engineering	PG	6	3	3	0	0	0	0	0	0	0	0	0	0	3	3
Production Engineering	UG	180	118	8	33	3	7	3	5	0	2	1	0	0	165	15
Production Engineering	PG	26	20	0	3	1	1	1	0	0	0	0	0	0	24	2
<b>Total</b>		<b>5492</b>	<b>3390</b>	<b>497</b>	<b>976</b>	<b>161</b>	<b>208</b>	<b>47</b>	<b>119</b>	<b>4</b>	<b>71</b>	<b>11</b>	<b>7</b>	<b>1</b>	<b>4776</b>	<b>716</b>

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**CHART III : CONTD. FACULTY OF ENGG. & TECH. (2016-17)**

PD*		Minority*		Foreign*		Other State*	
<b>M</b>	<b>F</b>	<b>M</b>	<b>F</b>	<b>M</b>	<b>F</b>	<b>M</b>	<b>F</b>
1	<b>0</b>	0	<b>0</b>	1	<b>1</b>	21	<b>13</b>
0	<b>0</b>	0	<b>0</b>	0	<b>0</b>	2	<b>0</b>
5	<b>0</b>	3	<b>1</b>	1	<b>1</b>	54	<b>10</b>
0	<b>0</b>	0	<b>0</b>	0	<b>0</b>	2	<b>0</b>
0	<b>0</b>	0	<b>0</b>	0	<b>0</b>	0	<b>1</b>
13	<b>0</b>	11	<b>0</b>	3	<b>0</b>	163	<b>5</b>
0	<b>0</b>	2	<b>0</b>	0	<b>0</b>	3	<b>0</b>
0	<b>0</b>	0	<b>0</b>	0	<b>0</b>	15	<b>2</b>
3	<b>0</b>	12	<b>0</b>	4	<b>3</b>	50	<b>6</b>
0	<b>0</b>	2	<b>0</b>	0	<b>0</b>	4	<b>1</b>
0	<b>0</b>	1	<b>1</b>	0	<b>0</b>	0	<b>2</b>
0	<b>0</b>	0	<b>0</b>	0	<b>0</b>	0	<b>0</b>
3	<b>0</b>	17	<b>0</b>	0	<b>0</b>	41	<b>0</b>
2	<b>0</b>	0	<b>0</b>	0	<b>0</b>	1	<b>0</b>
10	<b>0</b>	13	<b>2</b>	1	<b>0</b>	57	<b>7</b>
0	<b>0</b>	3	<b>1</b>	1	<b>0</b>	4	<b>1</b>
0	<b>0</b>	2	<b>0</b>	0	<b>0</b>	2	<b>2</b>
0	<b>0</b>	0	<b>0</b>	0	<b>0</b>	1	<b>0</b>
2	<b>0</b>	0	<b>0</b>	0	<b>0</b>	8	<b>0</b>
3	<b>0</b>	10	<b>2</b>	1	<b>0</b>	34	<b>7</b>
0	<b>0</b>	1	<b>1</b>	0	<b>0</b>	5	<b>2</b>
0	<b>0</b>	0	<b>1</b>	0	<b>0</b>	4	<b>1</b>
0	<b>0</b>	0	<b>0</b>	0	<b>0</b>	5	<b>1</b>

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**CHART III Contd. :**

PD*		Minority*		Foreign*		Other State*	
<b>M</b>	<b>F</b>	<b>M</b>	<b>F</b>	<b>M</b>	<b>F</b>	<b>M</b>	<b>F</b>
1	1	1	0	0	0	41	9
0	0	1	0	0	0	1	0
6	0	20	1	3	0	71	7
0	0	1	0	0	0	2	1
0	0	1	0	0	0	0	0
3	0	9	0	0	0	39	1
0	1	1	0	0	0	0	0
0	0	0	0	0	0	1	0
12	1	12	0	8	0	128	0
0	0	0	0	1	0	10	1
0	0	0	0	0	0	1	0
0	0	1	0	0	0	0	0
2	0	2	0	3	0	51	2
0	0	2	0	0	0	3	1
0	0	1	0	1	0	5	0
2	0	5	0	0	2	72	14
0	1	0	1	1	0	1	0
1	0	0	0	0	0	1	0
2	0	11	0	0	0	37	3
0	0	1	0	0	0	2	0
0	0	12	0	0	0	22	4
0	0	0	0	0	0	0	0
5	0	2	0	2	1	46	4
0	0	0	0	0	1	1	0
<b>76</b>	<b>4</b>	<b>160</b>	<b>11</b>	<b>31</b>	<b>9</b>	<b>1011</b>	<b>108</b>

\* NOTE :- The figures appearing in PD, Minority, Foreign and Other State are already included in the total column.

\* NOTE :- No Third Gender has been admitted in the session 2015-16.

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**CHART IV : FACULTY OF ISLM (2016-17)  
Total no. of students (Category-wise)**

	Courses	Total Students Strength	General		SC		ST		OBC-A		OBC-B		Sports/ QIP		Total	
			M	F	M	F	M	F	M	F	M	F	M	F	M	F
Adult Cont. Education (Mental Retardation)	PG	21	4	11	1	3	0	0	0	1	0	1	0	0	5	16
Adult Cont. Education (Multiple Disabilities)	PG	18	1	13	1	1	0	0	0	0	1	1	0	0	3	15
School of Bioscience & Engineering	PG	17	10	5	2	0	0	0	0	0	0	0	0	0	12	5
School of Education Technology (MMD)	PG	13	6	7	0	0	0	0	0	0	0	0	0	0	6	7
School of Education Technology (IT Courseware)	PG	26	9	16	1	0	0	0	0	0	0	0	0	0	10	16
School of Energy Studies	PG	23	17	1	4	1	0	0	0	0	0	0	0	0	21	2
School of Nuclear Studies	PG	31	23	4	3	0	1	0	0	0	0	0	0	0	27	4
School of Laser Science and Engg.	PG	16	10	3	1	2	0	0	0	0	0	0	0	0	11	5
School of Environmental Studies (Environmental-Bio-Tech.)	PG	16	6	10	0	0	0	0	0	0	0	0	0	0	6	10
Water Resource Engg. (4 Sem)	PG	31	22	4	3	0	2	0	0	0	0	0	0	0	27	4
Water Resource Engg. (6 Sem.)	PG	58	39	8	8	2	1	0	0	0	0	0	0	0	48	10
School of Distributed & Mobile Computing	PG	24	13	9	2	0	0	0	0	0	0	0	0	0	15	9
School of Illumination Engg.	PG	43	26	11	5	1	0	0	0	0	0	0	0	0	31	12
School of Nano Science and Tech.	PG	34	21	8	5	0	0	0	0	0	0	0	0	0	26	8
School of Women's Studies	M.Phil	32	2	17	4	4	2	0	2	0	0	1	0	0	10	22
<b>Total</b>		<b>403</b>	<b>209</b>	<b>127</b>	<b>40</b>	<b>14</b>	<b>6</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>1</b>	<b>3</b>	<b>0</b>	<b>0</b>	<b>258</b>	<b>145</b>

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**CHART IV Contd.**

PD*		Minority*		Foreign*		Other State*	
<b>M</b>	<b>F</b>	<b>M</b>	<b>F</b>	<b>M</b>	<b>F</b>	<b>M</b>	<b>F</b>
1	<b>0</b>	0	<b>0</b>	0	<b>0</b>	0	<b>1</b>
0	<b>0</b>	0	<b>0</b>	0	<b>0</b>	0	<b>0</b>
0	<b>0</b>	0	<b>0</b>	0	<b>0</b>	1	<b>0</b>
0	<b>0</b>	0	<b>0</b>	0	<b>0</b>	0	<b>0</b>
0	<b>0</b>	1	<b>1</b>	0	<b>0</b>	1	<b>0</b>
0	<b>0</b>	0	<b>0</b>	0	<b>0</b>	0	<b>0</b>
0	<b>0</b>	1	<b>2</b>	0	<b>0</b>	2	<b>0</b>
0	<b>0</b>	0	<b>0</b>	0	<b>0</b>	2	<b>0</b>
0	<b>0</b>	0	<b>1</b>	0	<b>0</b>	0	<b>0</b>
0	<b>0</b>	3	<b>1</b>	0	<b>0</b>	2	<b>0</b>
1	<b>0</b>	1	<b>0</b>	0	<b>0</b>	10	<b>2</b>
0	<b>0</b>	1	<b>1</b>	0	<b>0</b>	0	<b>0</b>
0	<b>0</b>	3	<b>0</b>	0	<b>0</b>	5	<b>3</b>
0	<b>0</b>	3	<b>0</b>	0	<b>0</b>	0	<b>0</b>
0	<b>0</b>	0	<b>0</b>	0	<b>0</b>	2	<b>2</b>
<b>2</b>	<b>0</b>	<b>13</b>	<b>6</b>	<b>0</b>	<b>0</b>	<b>25</b>	<b>8</b>

\* NOTE :- The figures appearing in PD, Minority, Foreign and Other State are already included in the total column.

\* NOTE :- No Third Gender has been admitted in the session 2016-17.

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**CHART V : FACULTY OF SCIENCE (2016-17)**

Department	Courses	Total Students Strength	General		SC		ST		OBC-A		OBC-B		Sports/QIP		Total	
			M	F	M	F	M	F	M	F	M	F	M	F	Male	Female
<b>SCIENCE</b>																
CHEMISTRY	UG	159	59	47	23	13	5	1	4	1	4	0	1	1	95	64
CHEMISTRY	PG	75	38	19	10	5	1	0	1	0	0	0	1	0	51	24
CHEMISTRY	PG (EVE.)	59	24	25	6	2	0	0	1	0	1	0	0	0	32	27
GEOLOGICAL SC.	UG	119	63	13	19	12	3	1	2	2	1	2	1	0	89	30
GEOLOGICAL SC.	PG	63	37	14	5	6	0	0	0	0	0	1	0	0	42	21
GEOGRAPHY	UG	31	12	6	5	2	0	0	0	1	3	1	1	0	21	10
MATHEMATICS	UG	250	124	37	46	13	8	6	7	1	4	3	1	0	190	60
MATHEMATICS	PG	136	66	29	28	8	1	2	0	1	1	0	0	0	96	40
MATHEMATICS	PG (EVE.)	97	49	22	20	3	0	0	1	0	1	1	0	0	71	26
PHYSICS	UG	193	88	33	33	13	9	1	5	3	5	0	2	1	142	51
PHYSICS	PG	87	49	18	6	9	4	0	1	0	0	0	0	0	60	27
PHYSICS	PG (EVE.)	59	33	14	9	1	0	0	1	0	1	0	0	0	44	15
LIFE SCIENCE & BIO TECH.	PG	37	10	22	1	2	0	0	1	0	0	1	0	0	12	25
ELECTRONICS SC.	PG	24	10	11	2	0	0	0	1	0	0	0	0	0	13	11
INST. SC.	PG	26	16	10	0	0	0	0	0	0	0	0	0	0	16	10
SCH. OF OCEANO. STUDIES	M.Phil	12	2	6	2	0	1	0	0	0	1	0	0	0	6	6
<b>Total</b>		<b>1427</b>	<b>680</b>	<b>326</b>	<b>215</b>	<b>89</b>	<b>32</b>	<b>11</b>	<b>25</b>	<b>9</b>	<b>22</b>	<b>9</b>	<b>7</b>	<b>2</b>	<b>980</b>	<b>447</b>

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**CHART V Contd.**

PD*		Minority*		Foreign*		Other State*	
M	F	M	F	M	F	M	F
2	1	4	1	0	0	2	4
2	0	1	0	0	0	0	0
0	0	2	0	0	0	0	0
0	0	6	1	0	0	0	0
0	0	0	1	0	0	0	0
0	0	1	1	0	0	1	1
3	2	11	0	0	0	3	0
2	1	1	1	0	0	0	0
0	0	1	2	0	0	0	0
3	0	9	1	0	0	0	1
2	0	5	0	0	0	0	0
0	0	2	0	0	0	2	1
0	0	1	0	1	0	1	0
0	0	1	0	0	0	1	1
0	0	0	0	0	0	0	1
0	0	0	0	0	0	0	1
<b>14</b>	<b>4</b>	<b>45</b>	<b>8</b>	<b>1</b>	<b>0</b>	<b>10</b>	<b>10</b>

\* NOTE :- The figures appearing in PD, Minority, Foreign and Other State are already included in the total column.

\* NOTE :- No Third Gender has been admitted in the session 2016-17.





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## SECTION B

[ACADEMIC REPORT. 1.04.2016 TO 31.03.2017]

FACULTY COUNCIL OF ARTS  

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D E P A R T M E N T S

***Annual Report 2016-17***

**Annual Report 2016-17**

**BENGALI**

Phone : + 91-33-2414-6267  
Int. : 2457-2232/2124  
H.O.D : Prof. Gopa Datta  
Prof. Sekhar Kr. Samaddar (From 21.6.2016)  
E-mail : hod@bengali.jdvu.ac.in  
hod.bengali@jadavpuruniversity.in

**1. A. Courses Offered**

Name of the Course	Duration of the Course	No. of Students
B. A (Honours)	3 Years ( 6 Semester)	U.G 1-63 U.G 2-64 U.G 3-63
B.A. Extra-Departmental	2 Years ( 4 Semesters)	123
M.A.	2 Years ( 4 Semesters)	P.G1 (Day)-73 P.G 2 (Day)-77 P.G 1( Evening)-59 P.G 2 (Evening)-52
M.Phil.	2 years	17
Ph.D Coursework		
Ph.D Registered		39

**1. B. Number of Faculty Members:** Permanent: 16 (in position: 13)

**2. A. Area of Research Activity:**

- History of Bengali Literature and Culture
- Medieval Literature
- Nineteenth Century Studies
- Rabindranath Studies
- Bangladesh Studies

**2. B. Major Research Projects**

Aspects of Modernities: Literary and cultural experiences of 19<sup>th</sup> and 20<sup>th</sup> century Bengal

**3. A. Seminar Organized by the Department :**

- Shatobarshe Samar Sen, in collaboration with Rabindranath Studies Centre, J.U, February 2017
- Rabindranath o Samoyikpotrika, in collaboration with Rabindranath Studies Centre, J.U, March 2017
- Anto-Biswavidyalaya Gabesok Alochonasava: in collaboration with Rabindranath Studies Centre, 28 -29<sup>th</sup>March 2017

**3. B. Workshop Organized by the Department**

- On Research Methodology, November 2016

**4. A. Invited Lectures Delivered/Sessions Chaired by Individual Teachers**

**Prof. Gopa Datta**

1. *Bankimchandra : Life & Philosophy*, Organized by Ebang Mushaera, August 2016
2. *Meyeder Kalame Kara Kahini*, School of Women's Studies, JU, April 2016
3. *Maharshi Devendranath Thakur : Contribution towards Bengali Literature*, Visva-Bharati, December 2016
4. Chaired and delivered lecture in a Seminar organized by Sahitya Akademi commemorating Birth Centenary of Narayan Gangopadhyay on *Narayan Gangopadhyaya : Biographer of Short Stories*.
5. *Ashapura Devi's Satyabati in the backdrop of her Fame*, Diamond Harbour Women's University
6. Chaired a session and delivered a short lecture on *Bangladesh and India : Cultural Correlation*, Organized by Jadavpur University and Bangladesh Deputy High Commission.
7. *Iran and Bengal*, Organized by Iran Society, Kolkata

**Prof. Udaykumar Chakraborty**

**Resource Person**

1. 'Delivered lectures at the Orientation Programme, organized by Jadavpur University,

**Paper Presentation**

1. Presented a paper on Sociolinguistics, in the International Seminar on "Sampratik Bangla Bhasa "Sanskriti" held on 22 February, 2017 organized by Barrackpore Rastraguru Surendranath College
2. Presented Paper on 'Sailibisheshan' in the UGC sponsored seminar on Stylistics: Bengali Prose and Poem, held on September,1, 2016, organized by Bengali Department, Prafulla Chandra College, Kolkata
3. Delivered seminar lecture on Bengali Prosody on June 8, 2016 at Barasat Government College, Barasat
4. Delivered seminar lecture on Stylistics on April 7, 2016 at St. Xaviers College
5. Paper presented on 'Kirtan' in the 4<sup>th</sup> session of the two-day international seminar on Sri Chaitanya: The Harbinger of New Religious and Social Concept organized by the Asiatic Society, Kolkata, held on 10-11 March, 2015 at Vidyasagar Hall, Asiatic Society.
6. Participated in the panel discussion on 'Collaboration with Academic Institutes for the Growth of Wikimedia Projects in Bangla' in Bangla Wikipedia 10<sup>th</sup> Anniversary Celebration & International Conference held on January 9, 2015, at Jadavpur University.
7. Paper presented on 'Mymensingha Geetika Moukhikriti' (The Oral Tradition of the Ballads of Mymensingh), UGC sponsored Seminar on *Mymensingha Geetika* held on December, 2014 organized by Pakuahat Degree College, Malda.
8. Paper presented entitled 'Pyarichand Mitra: Alalibhasha' (Pyarichand Mitra: Alali Dialect) held on August 31, 2014 organized by Little Magazine Library
9. Paper presented as an Invited Resource Person in the National Seminar on William Carey, jibon o srijin (William Carey: life and creation) organized by Gour Banga University and Pakuahat Degree College, Malda on 10<sup>th</sup> April, 2013

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### **Chair the Session**

1. Chair the 2<sup>nd</sup> session in the seminar on Satabarshe Samar Sen, held on March, 2, 2017, organized by Bengali Department, JU and Rabindranath Studies Centre, JU
2. Chair the 2<sup>nd</sup> session in the UGC sponsored seminar on Stylistics: Bengali Prose and Poem, held on September,1, 2016, organized by Bengali Department, Prafulla Chandra College, Kolkata 29
3. Chair the inaugural session of the National level seminar on 'Urban Folklore and Impact of Urbanization on Folklore' held on March 23, 2015, organized by Folkloristic Education & Research Institute at Anita Banerjee Memorial Hall, Jadavpur University.
4. Chair the 2<sup>nd</sup> Session in the National Seminar on 'Dialects and Identity Crisis' organized by Hindi Department, Presidency University and Central Institute of Indian Languages, MHRD (GOI), Mysore, held on 23.02.2015 at Presidency University.
5. Chair the 2<sup>nd</sup> session of the UGC sponsored Seminar on Mymensingha Geetika held on December, 2014 organized by Pakuahat Degree College, Maldah.
6. Chair a session at 'Third International Congress of Bengal Studies' organized by the University of Calcutta and Department of Bengali held in November 19-22, 2013
7. Chair the 4<sup>th</sup> session, UGC sponsored seminar on "Upendrakishore Raychoudhury" organized by Dhruvachand Haldar College, Dakshin Barasat and Bengali Department, Jadavpur University on 5<sup>th</sup> May, 2013
8. Chair the Academic Session in the 3<sup>rd</sup> International Congress of Bengal Studies, head at University of Calcutta, on 19.11.2013, 2<sup>nd</sup> half
9. Paper presented as an Invited Resource Person in the National Seminar on William Carey, jibon o srijin (William Carey: life and creation) organized by Gour Banga University and Pakuahat Degree College, Malda on 10<sup>th</sup> April, 2013
10. Delivered lectures (three-hour lecture) as an Invited Resource Person in the Ph.D. and M. Phil. coursework on 19.03.2013 at University of Kalyani, Bengali Department, Faculty of Arts
12. Delivered lectures (three-hour lecture) as an Invited Resource Person in the Ph.D. and M. Phil. coursework on 12.04.2013 at University of Kalyani, Bengali Department, Faculty of Arts

### **Prof. Sekharkumar Samaddar**

#### **A. Presided in the Following Programmes:**

- 1) March 29,2017: Seminer by the research scholars of Bengali Dept,J.U.
- 2) March, 22,2017: Felicitation of noted Bengali Film Maker Sri Kaushik Ganguly.
- 3) February,28,2017: Birth Centenary Seminar on Narendranath Mitra and Samar Sen, organized by Dept of Bengali,J.U and Punoscho Bangla.

#### **B. Organized Workshops and took the role of Mentor:**

- 1) Play writing workshop at Abhaash Dakshin Kolkata on Nov 1 and Dec 21,2017.
- 2) On Nivedita and Vivekananda at Santragachi Mahavidyalaya, Dec 26,2017 and Sodepur Tirthabharati Vidyamandir, November 21,2017.

### **Prof. Sampa Choudhury**

1. Special Lecture organized by Bengali Department, Rabindra Bharati University.  
Sub: *Mahaswetar Smarane* : 19<sup>th</sup> September, 2016.

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2. Sucheta Mitra Memorial Lecture organized by Jogamaya Devi College  
Sub: *Rabindrachhotogolpe garhastya rajneeti* On 20<sup>th</sup> March, 2017.
3. Lecture delivered as Resource Person in a Refresher Course organized by Academic Staff College, University of Calcutta on Indian Language and Literature: Comparative Perspective. Topic: *Bishwayita bangalir atmaparichay: Ketaki Kushari Dyson o Jhumpa Lahirir katha bhuban*. Delivered on 22<sup>nd</sup> December, 2016.
4. Attended CBSE Workshop, Bengali, at Delhi from 25.04.2016 to 30.04.2016.

#### **Sutapa Sengupta**

##### **Presentation & Poetry Reading**

1. Invited as Guest of Honour, by Information & Cultural Affairs, State Govt of Tripura, in Language Day Celebration Programme “Matri Bhasha Pronam Dibas 19 May”, delivered Talk and read in Poetry Reading Session, May 2016
2. Poetry Reading Session in “The 5th Festival of Literature”, organized by Sahitya Akademi and Manipur State Kala Akademi at Imphal, Manipur, September 2016
3. Poetry Reading Session, organized by Sahitya Akademi, Visva-Bharati University and Aabrittilok at Visva-Bharati University, Nov 2016
4. Paper Presentation on “Poetry of Bengali Women Poets” in “Literary Forum on Bengali Women Writers of Nineteenth and Twentieth Century : A Comparative Study”, organized by Sahitya Akademi, Kolkata

#### **Dr. Barendu Mandal**

1. Lecture delivered in a National Seminar on ‘Sundarban Anchaler Sahitya O Samskritir Sankat’ Organized by Basundhara Rural Welfare Society & Samakaler Jiyankathi, 17<sup>th</sup> December 2016
2. Lecture delivered in a National Seminar on ‘Yuddha o Bangla Sahitya’ Organized by Serampore Girl’s College, 29 March 2017

#### **Dr. Rajyeswar Sinha**

##### **A. Lecture Delivered**

1. ‘Pathak o Bangladesher prakashakder matbinimoy’, Bangladesh Boimela, Kolkata, 7<sup>th</sup> Sep. 2016
2. ‘Antarjatic Matribhasa Dibas’, organized by Vijaygarh Jyotish Ray College, 22 feb. 2017

##### **B. Chaired**

1. ‘The Tradition of Kirtan in Bengal’, Project Palagan, UPE II, 12<sup>th</sup> Jan 2017

#### **Joydeep Ghosh**

1. ‘Antarjatic Matrivasas Dibas’, organized by Vijaygarh Jyotish Ray College, 22 Feb. 2017
2. Lecture delivered on a UGC sponsored National Seminar Commemorating 150<sup>th</sup> Birth Anniversary of Sister Nivedita, organized by Bhawanipur Education Society College, 1 March 2017

##### **4. B. Published Work**

#### **Prof Gopa Datta**

1. Book :  
*Prabandha Samagra*, Ebang Mushaera, 2017
2. Articles :  
‘Meyeder Kalame Kara Kahini’, *Bitarkika* 2016



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'Bankimchandrer Upanyase Kobita', *Ba-kim Smarak Grantha*, Ba-kim Gabeshana Kendra, Naihati

'Ote Aar Tote', Bibhutibhushan Bandyopadhyay Sankhya, *Dibaratrir Kavya*, 2016

**Prof. Achintya Biswas**

1. Published Books

*Shakta Padavali Samkalan*, edited by Achintya Biswas, Ratnabali, April 2016

*Tarashankar Bandyopadhyayer Kabi*, 3<sup>rd</sup> Edition, edited by Achintya Biswas, Ratnabali, August 2016

*Shirna Kul Gaachh*, Sannibesh, Nababarsha 1423b

2. Published Articles

"Portrait of Ambedkar", in '*Listen to the Flames*', *Texts and Readings from the Margins*, OUP, Delhi 2016

**Prof. Udaykumar Chakraborty**

**Published Books**

1. *Bangla Sangbartani Byakaran* (Bengali Transformational Grammar); 1<sup>st</sup>. Dey's edition, Dey's Publishing, Kolkata, August 2016; ISBN 978-81-295-2732-5

2. '*Chaturanga: sadhakkabir alekhya*' (Chaturanga (a novel of Rabindranath): the portrait of a sage-poet); Dey's Publishing, Kolkata, July 2016; ISBN 978-81-295-2729-5

3. *Bhasabiggan*, (Linguistics), co-author: Dr. Nilima Chakraborty, Dey's Publishing, Kolkata, January 2016; ISBN 978-81-295-2432-4

**Published Papers / Chapters in Books**

1. Dwanda: asura-daeba, suraityadi (Conflict between Demon God etc.) in *Sreemayee*, June 2017, ISSN 2320-9909

2. Sherpa janajati: janmamrityubiye in *Baranrekha*, February 2017

3. Baisnaba kabitae sarirprasanga; in *Baisnab Sahitya Punaralochana o Navamulyayan*; Pragna Bikash, Kolkata, 2016, ISBN 978-93-83016-65-5

4. Bangla Bhasacarcar Eksho Bachar, in *Bangla Prabandha Digbalay*; Tuhina Prakashani, Kolkata, 2016, ISBN 978-81-929236-3-5

5. Bankimupanyaser Bhasa Druti, in *Bankimchandra: Kaler Bhabnae*, Ebang Musayera, Kolkata, 2016, ISBN 978-93-85119-59-0

6. Mon O Bhasa, in *Bahurupe Bhasa*, 2nd vol., Prativas, Kolkata, 2016, ISBN 978-93-85392-66-5

7. 'Pratham Viswayuddha o Rabindranath' (First World War and Rabindranath), in *Pratham Biswajuddha. Shatavarshe Phire Dekha* ed. Devabrata Ghosh and Sanat Kumar Naskar, 2015, Deep Prakashan.

8. 'Rajendralaler Vakyavishayak alocana', *Ebang ei Samay*, ed. Arun Banerjee, June-August 2013 pp 215-223

9. 'Adhi-bhashajagat o Jugantarer bhasha' (The World of Meta-language and the Language of *Jugantar*, a novel written by Shibanath Sastri), 2014, *Ebang ei Samay*, January 2014, ed. A. Banerjee

10. 'Sriramakrishna: antarjagateek bhalobhasar manush' (Sri Ramakrishna: a person who

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bears love in his heart), *Didhiti*, January 12, 2015, Ramakrishna Vedanta Ashrama, Kolkata 700 141

#### **Prof. Sekharkumar Samaddar**

1. A Original Play named *Putul Naacher Ghora*, May and September, 2017 issue, *Charcha*, Minerva Natyasankriti Charcha Kendra.
2. Natyashikkhak Sambhu Mitra, *Paschimbanga Natya Academi Patrika*, September 2017.

#### **Prof. Sampa Chowdhury**

1. Mahasweta ebong tnar pochhonder panch (Preface to the volume *Mahasweta Devi: pochhonder panch uponyas*, Diya, October 2016).
2. Bhinnoswader dui akhyan (published in *Boier Desh*, October-December 2016).
3. Rabishankar Bol-er golpo: ekantoheen kathamala (published in *Hundred Miles*, December 2016)
4. Juddher naam 'Baby Halder' (published in *Shubhasree*, January 2017)
5. Bishwayan o Ketakir uponyas (published in the volume *Kaler Bibartane Dui Banglar Uponyas*, edited by Subrata Kumar Pal, Sri Bharati Press, January 2017).

#### **Sutapa Sengupta**

1. Book of Poems "Loony Series", Published by Prativas Prakashoni, Kolkata, Feb 2016
2. Poem compiled in A Collection of Bengali Poems for Recitation, *Aabrittijogya Chhorra o Kabita*, edited by Pabitra Sarkar et al, published by Molooy Prakashani, Kolkata, Feb 2016
3. Translation of poems of Kamala Das and Attoor Ravivarma, in a collection *Bharatjoda Kavyagatha*, edited by Ramkumar Mukhopadhyay, published by Mitra and Ghosh Publishers, Kolkata, April 2016
4. Poems published in *Kojagari*, a literary book, edited by Debesh Roy, published by Spark Book Company, Kolkata-New Delhi-Mumbai-Bengaluru , Oct 2016

#### **Dr. Barendu Mandal**

##### **A. Paper Published in Journal**

1. 'Sachin Das : Solemaner Dingay Jatodur Jaoa Jay', *Ujagar*, editor : Uttam Purkayit, 13<sup>th</sup> Year 1423B
2. 'Uchchheder Akhyanbrittanta o Raghav Bandyopadhyay', *Anthasar*, editor : Ratanshu Bargi, October 2016
3. 'Deshbhager Sahitya Jebhabe Pori', *Ujagar*, editor : Uttam Purkayit, 1<sup>st</sup> & 2<sup>nd</sup> No. 1423B
4. 'Sachin Daser Galpe Nodi O Sundarban', *Samakaler Jiyankathi*, editor : Najibul Islam June 2016
5. 'Sandipaner Casual Godyaathoba Tukro Chhboir Collage', *Mallar*, editor : Subhamay Sarkar, March 2016
6. 'Amiyabhushan : Swatantrer Sandhane Punarbar', *Alochanachakra*, editor : Chiranjib Sur, March 2017

##### **B. Paper Published in Book**

1. 'Little Magazine : Je Pathe Dnarie', *Little Magazine Parbo Parbantar*, edited by Barendu Mandal, Kathaprakash, Dhaka, Bangladesh, January 2017
2. 'Deshbhager Traumar Sahityik Bayan : Pathakritir Samasya O Sambhabana' *Partition*

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*Literature : An Open Praxis*, edited by Srideep Mukherjee and Manankumar Mandal, School of Humanities, NSOU, October 2016

#### **C. Edited Books**

1. *Little Magazine : Parba Parbantar*, Kathaprakash, Dhaka, Bangladesh, January 2017

#### **Dr. Rajyeshwar Sinha**

1. 'Nichak bidrahee kobi bolei day sarbo?', *Ei Somoy*, Rabibaroyaria, 29<sup>th</sup>may 2016.

#### **Joydeep Ghosh**

1. Vivekananda : Para O Parar Darshan, *Korak*, Jan-April 2016, Edited by Tapas Basu

#### **5. Other Contributions**

#### **Prof. Udaykumar Chakraborty**

##### **UGC Nominee**

1. Appointed as UGC nominee external member of the Advisory Committee of DRS (Phase II) under SAP, Department of Bengali, University of Calcutta, from 2014
2. Appointed as UGC nominee external member of the Advisory Committee of DRS, Department of Bengali, University of Burdwan, from 2015

##### **External Member of the Academic Body**

1. External member of the Departmental Ph.D. Committee, Bengali Department, University of Calcutta; (term ended March, 2017)
2. External member of the Research Board for Ph.D., Bengali Department, Diamond Harbour Women's University
3. External member of the PG Board of Studies, Bengali Department, Netaji Subhas Open University, Kolkata
4. External member of the PG Board of Studies, Bengali Department, Jogamaya Devi College, PG Studies, Kolkata

#### **Prof. Sekhar Samaddar**

1. Inaugurated Sainthia Anandadulal Smriti Natyautsav, September 6, 2017.

#### **Sutapa Sengupta**

1. Updated existing entries on , "Modern Bengali Poetry" in the *Encyclopaedia of Indian Literature ( Revised Version )*, Volume IV, Sahitya Akademi , New Delhi, March 2016
2. Acted as Member of the Jury Board of Sahitya Akademi Yuva Puraskar 2016 in Bengali, May 2016
3. Organized as Joint Convenor (along with Joydeep Ghosh) a Two-Day Poetry Symposium on behalf of Department of Bengali, Jadavpur University in collaboration with Sahitya Akademi, Kolkata. Venue : Jadavpur University, August 2016.

## COMPARATIVE LITERATURE

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H.O.D. : Professor Samantak Das  
E-mail : hod@complit.jdvu.ac.in  
hod.comp.lit@jadavpuruniversity.in

### 1. A. Courses Offered:

Name of the Course	Duration	No of Students Enrolled
B.A (Honours)	3 years 6 semesters	166
B.A (E.D)	Semesters 1— 4	61
M.A.	2 years 4 semesters	111
M.Phil	2 years	17
Ph.D Course Work		17
Registered for Ph.D		25
Certificate course in Translation	6 months	30

1. B. Number of Faculty Members: Permanent: Sanctioned: 14  
In position: 11 (+ 2 on lien)  
Vacant: 1  
Guest Faculty: 1

### 2. A. Area of Research Activities:(Broad Areas)

Areas identified by Board of Studies (BOS) and External Experts for research under the Centre of Advanced Study (CAS) Phase III are:

#### (a) Comparative Literature: Texts, Contexts, Methods

- issues and aspects related to Comparative Literature pedagogy specifically keeping in mind the Indian context
- With the recent considerable growth of Comparative Literature Departments, as well as Centres and Schools:
- a demand is growing for text material for core courses on 'Comparative Literature: Definition, Scope, History,' which will be sought to be met.

#### (b) Inter-literary Transactions: Indian and Asian Contexts

In today's globalized world, there is an ever greater need to find the right balance between opening the doors to the world and understanding Indian literatures in their multiplicity, and the interconnections within India and among Asian languages, literatures and cultures, without shutting the doors on non-Asian language literatures.

#### (c) Interactions between Literature and other Knowledge Systems

- Issues related to orality, oral history,

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- testimonial literature,
- the storytelling tradition
- performance.

The Department intends to focus on work that would unveil the relations between literary texts and texts from other 'non-literary' matrices

- Canadian Studies
- Latin American Literature and Culture
- Literatures of Bangladesh
- Translation Studies

### **2. B. Major Research Project :** (Departmental/Individual, Name of the Project/Funding Agency)

#### ***Samantak Das***

- Faculty Member, Project E-QUAL, Jadavpur University and member, Joint Working Group in Human Ecology [see: <http://www.projectequal.net/equal/index.php/people/jadavpur-university/33-prof-samantak-das/36-prof-samantak-das-details>]; Project E-QUAL (Enhancing Quality, Access and Governance of Undergraduate Education in India) is a European Union-funded International Collaborative Project with a funding commitment of over one million Euros till May 2017, with the British Council being the lead partner in terms of strategic oversight and Ambedkar University Delhi, Jadavpur University, King's College London, Shiv Nadar University, University of Bologna and University of Hyderabad as university partners. The objective of the project is to enhance the quality, access and governance of undergraduate education in India, through promotion of Indo-EU Higher Education partnerships and collaborations, which is in line with Government of India's plan to provide greater access and improve quality of higher education in India.

#### ***Sucheta Bhattacharyya***

- Coordinator of CAS III research project Centering Borders, Border Crossings & Borderlands in Comparative Literary and Cultural Studies

#### ***Sayantana Dasgupta***

- Project Anuvad, UGC-UPE Phase 2 (Cultural Resources and Social Sciences)
- Individual, 'Soundscapes of Kolkata', UGC-UPE Phase I & II
- Departmental, 'Centering Borders, Bordercrossings and Borderlands in Comparative Literary and Cultural Studies', UGC-CAS Phase III
- Departmental, 'Representing Japan in Bangla Literature: Issues of Bengali Modernity in Asian Contexts', UGC-CAS Phase III
- Departmental, 'Digital Humanities in the Age of Comparative Literature: Pedagogy and Curricula', UGC-CAS Phase III

#### ***Parthasarathi Bhaumik***

- Individual, 'Soundscapes of Kolkata', UGC-UPE Phase I & II
- Departmental, 'Centering Borders, Bordercrossings and Borderlands in Comparative Literary and Cultural Studies', UGC-CAS Phase III
- Departmental, 'Representing Japan in Bangla Literature: Issues of Bengali Modernity in Asian Contexts', UGC-CAS Phase III
- Departmental, 'Digital Humanities in the Age of Comparative Literature: Pedagogy and Curricula', UGC-CAS Phase III

**Sumit Kumar Barua**

- Departmental, “Reception of the Buddhist Tradition in Bengal in late 19<sup>th</sup> and early 20<sup>th</sup> century”, UGC-CAS, Phase - III

**3. A. Invited Lectures Delivered/Sessions Chaired:**

(Name of the Teacher, Type of Participants, Name of the Seminar / Conference etc. Place, Duration)

**Kunal Chattopadhyay**

- International Comparative Literature Association, XXIth World Congress, University of Vienna, July 21<sup>st</sup> to 27<sup>th</sup> , 2016, chaired a session at the panel The Many Languages of Communist Cultural Resistance in India, 22 July 2016
- International Comparative Literature Association, XXIth World Congress, University of Vienna, July 21<sup>st</sup> to 27<sup>th</sup> , 2016, chaired a session at the panel Comparative Literature in India and the Many Languages of Indian Literature, 23 July 2016
- Society for Marxist Studies, Residential School, Bangalore 6-9 January 2017. Delivered two talks: (1) On the *Russian Revolution*, and (2) On *Party and Organisation*
- Karnataka KomuSouhardaVedike, Conference on 7-8 January 2017, The Experience of Fascism and strategies for resistance: Delivered a talk on *Revolutions and counter-Revolutions in Europe in the first half of the twentieth century – fascism as anti-working class counter-revolution*
- Invited lecture at International Seminar organised by Ramakrishna Mission Vidyamandira ,Belur, in collaboration with Gorky Sadan, on the centenary of the Russian Revolution, The Russian Revolution: Historical Reflections, 15 February, 2017, at Ramakrishna Mission Vidyamandira , Belur. Title of talk: *The Historic Lessons of the Russian Revolution*
- Palaver XIV: International Forum for Scholars of African Studies, organised by Centre for Studies in African Literatures and Cultures, 14-15 March, 2017. Chaired a session on 14<sup>th</sup> March.

**Suchorita Chattopadhyay**

- Chaired a session in International Conference on “Engaging Canada : Landmarks and Roadmaps for Global educational Collaboration between Canada and India” in India organized by Shastri Indo Canadian India at India Habitat Centre, New Delhi on May 28, 2016.
- International Comparative Literature Association, XXIth World Congress, University of Vienna, July 21<sup>st</sup> to 27<sup>th</sup> , 2016, chaired a session on 23 July 2016
- Presented a paper entitled “ Academic Collaborations in Higher Education : Canada & India” on “ Entrepreneurial Universities: The future of Indian Universities organised by SICI in collaboration with NALSAR on 28th November 2016 at Hyderabad.
- Chaired a session at the International Conference on “ Entrepreneurial Universities: The future of Indian Universities organised by SICI in collaboration with NALSAR on 28th November 2016 at Hyderabad.
- Chaired a session at the ‘Nexus: Anglo-Indian Literature and Anglo-Indian life’ workshop at Jadavpur University, Kolkata on 18 January, 2017.
- Presented paper on “Exploring the Notions of ‘Peace’ and ‘Harmony’ within the



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Contemporary Canadian Nation” at the National Conference on “Peace and Harmony: India and Canada” organized by the Centre for Canadian Studies, University of Kerala, Thiruvananthapuram, on February 17-18, 2017.

- Chaired a session on “Peace Studies in Humanities” at at the National Conference on “Peace and Harmony: India and Canada” organized by the Centre for Canadian Studies, University of Kerala, Thiruvananthapuram, on February 17-18, 2017.

#### **Kavita Panjabi**

- “Changing Trajectories of Memory and “Mirroring” across Borders in the Indian Sub-continent” at Traces Of The Global: Displacement, Memory, And Cultural Citizenship, interdisciplinary workshop held at Jawaharlal Nehru University, Delhi, 3rd, 4th February 2017.
- “Of Sindhi and Bengali Roots/Routes across the Indian Sub-continent: Language, Culture & Memory” at the International Conference on Comparative Understanding of Bengali and Sindhi: History and Culture, Department of Bangla, Surendranath College for Women, Kolkata on November 9-10, 2016.
- “Mainstreaming Gender & Equity into West Bengal’s Development Agenda” at UNICEF - Programme Context Analysis on 16th of May, 2016 Kolkata.
- “Care, Labour and Surrogacy: Response to KalindiVohra” at Gujarat/ Guatemala: Marketing Care and Speculating Life: An International Symposium at Cornell University, May 6-7, 2016(on Skype)
- Session on gender and fiction at “Africa Today” organized by Palaver XIV, the Annual Forum for Scholars of African Studies, Centre for Studies in African Literatures and Cultures, Jadavpur University, March 14-15.
- Panel Discussion with Graphic Novelist Malik Sajad, conducted with Prof. Nilanjana Gupta at Doing Graphic Stories: a Comics Festival, Department of English (CAS Programme III), Jadavpur University and Longform Collective 12, 13, 14 January 2017.
- Round table discussion with school teachers at The Idea of Nationalism: An International Conference On Teaching History, organized by Peaceworks, Seagull, Kolkata, 10-12 Nov 2016.

#### **Samantak Das**

- Invited to deliver the Kripasaran Mahastavir Memorial Lecture for 2016 (2560 Buddhist Era) by the Bauddha Dharmankur Sabha, “Stray Reflections on Education from a Broadly Buddhist Perspective”, on 22 June 2016.
- Two lectures on travel in Bengal, from colonial times to the present, at the Refresher Course “Modes of Transport: Their Evolving Significance in Bengali Life and Literature” organised by the Department of Bengali, Burdwan University, on 9 August 2016.
- Two lectures, “Written on the Body: agency, representation, deviance” at the 63rd Orientation Programme, UGC-Human Resource Development Centre, JU, on 28 November 2016.
- Invited to deliver special lecture as Guest Speaker at the seminar on “Caste-ism in the Preset Scenario and Ambedkar” organised on the occasion of the 125th Birth Anniversary celebrations of Dr BR Ambedkar at the Indian Statistical Institute, Kolkata, on 30 December 2016.
- Two lectures, “Need for Speed: travel and the slothful Bangali” at the 64th Orientation Programme, UGC-Human Resource Development Centre, JU, on 10 February 2017.
- Delivered a Plenary Lecture on “Language and Dalit Identity” at the national



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conference on “Dalit and Tribal Identities, the Nation, and Globalization”, organised by the Department of English, Vidyasagar University, on 29 and 30 March 2017. Also chaired a session and moderated a panel discussion at the same conference.

#### **Sucheta Bhattacharyya**

- Delivered paper on *Indian and Latin-American Border Movies* in the International Seminar “Shifting Significations of Borders in Contemporary South Asia and the Americas” organized by the Centre for Studies in Latin American Literatures and Cultures (CSLALC) & Centre of Advanced Study (CAS), Dept. of Comparative Literature, J.U., January 19-20, 2017

#### **Sayantana Dasgupta**

- Invited lecture delivered: “The Call of the Hills: A View from the Plains”—at the Winter School on “The Relevance of Studying Humanities and the Social Sciences in the Himalayan Region” on November 19, 2016
- Invited lecture delivered: “Astride the Divides: Jatindra Kumar Nayak”—at the National Seminar on “Astride the Divides” organized by the PG Department of English, Utkal University, on November 25, 2016.
- Resource Person for seven-day UGC-sponsored state-level Translation Workshop on “Translating 19<sup>th</sup> Century Women’s Writing and Writing for Women” at the Bhawanipur Education Society College, December 5 to 11, 2016.
- Chaired a session on “Literature and Censorship” in the XIII CLAI International Biennial Conference organized by the Centre for Comparative Literature, Bhasha Bhavana, Visva-Bharati (March 6-8, 2017).
- Chaired a session on “Canadian Visual Art” at the International Conference on “Of Conflicts and Landscapes: The Rhetoric of Performance and Visual Art in Canada”, organized by the Centre for Canadian Studies, Jadavpur University, in collaboration with the Shastri Indo-Canadian Institute, March 7-9, 2017.
- Invited lecture delivered: “Translation in India” at the UGC HRD, JU sponsored short-term workshop on “Language and Literature” organized by the School of Languages and Linguistics, Jadavpur University, October 4 to 6, 2016.

#### **Parthasarathi Bhaumik**

- Chaired a session, ‘The Tradition of Kirtana in Bengal’, organized by the Project Palagaan, School of Media Communication & Culture, Jadavpur University, 13 January, 2017
- Invited Resource Person to deliver a lecture on ‘Cultural Studies and Post-War Literature’, Bidhan Chandra College, Asansol, West Bengal, 6 Feb, 2017

#### **Epsita Halder**

- Interface between Scripture and Modernity: A Case of 19<sup>th</sup> century Bengal, at the Department of Religious Studies, University of Calgary, 22 March 2017
- The Sublime Pain in/as Everyday Practice: Shia Women in the City, organized by the Department of Sociology in collaboration with the Women’s Studies Programme, University of Calgary, 23 March 2017

#### **Debashree Dattaray**

- Resource person at the 3<sup>rd</sup> Centre for Karbi Studies Foundation Day Symposium entitled “Researching Karbi Oral History”, Diphu, Karbi Anglong, Assam on 15 March, 2017.

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- Invited Seminar talk on “Bollywood and Beyond: Insights from the North East of India” organized by the Te Puna Wānanga and the Narrative and Metaphor Special Interest Network (NAMSIN), University of Auckland, on 17 November, 2016.
- Plenary Lecture in the National Seminar on “Unexplored History of the Karbis in Northeast India: Past and Present Perspectives” organized by the Department of History, AUGC and Centre for Karbi Studies, Diphu during 6 -7 September, 2016 at Assam University, Diphu Campus, Diphu, Karbi Anglong, Assam.

### **3. B. Seminar/Workshop/Conference/Symposium Attended:**

(Name of the Teacher, Name of the Paper Presented, Name of the Seminar, Place, Duration)

#### **Suchorita Chattopadhyay**

- International Comparative Literature Association, XXIth World Congress, University of Vienna, July 21<sup>st</sup> to 27<sup>th</sup>, 2016, presented a paper in the panel on Many cultures, many idioms”on ‘The legend of the Chalk Circle travelling across cultures’
- International Comparative Literature Association, XXIth World Congress, University of Vienna, July 21<sup>st</sup> to 27<sup>th</sup>, 2016, presented a paper in the panel on “Comparing Comparative Literatures: Models and Methods” on “The role of Translation Studies within the discipline of Comparative Literature in India”

#### **Kunal Chattopadhyay**

- International Comparative Literature Association, XXIth World Congress, University of Vienna, July 21<sup>st</sup> to 27<sup>th</sup>, 2016, presented a paper in the panel The Many Languages of Communist Cultural Resistance in India, 23 July 2016, on *Narrative Fiction in the Progressive Movement and its heirs: Situating the Bangla Debates over Socialist Realism in an all-India context*
- International Comparative Literature Association, XXIth World Congress, University of Vienna, July 21<sup>st</sup> to 27<sup>th</sup>, 2016, presented a paper in the panel”*The Rhetoric of the Anthropocene*”, on 23 July 2016, on *Anticipating the Anthropocene: “Classical” and “Popular” Science Fiction*

#### **Kavita Panjabi**

- Keynote Address at International Seminar “Shifting Significations of Borders in Contemporary South Asia and the Americas” Organized by the Centre for Studies in Latin American Literatures and Cultures (CSLALC) & Centre of Advanced Study (CAS), Dept. of Comparative Literature, J.U., Jan 19-20.

#### **Parthasarathi Bhaumik,**

- “Making, Unmaking, and Remaking of Border in South Asia: Bengali Imagination, Anxiety, and Experiences of Burma Border”, International Conference on ‘Border & Border Studies: The South Asian Perspective’, South Asian University, New Delhi, 6-7 March, 2017
- ‘Use of E-Resources in Higher Education’, Project E-QUAL, Jadavpur University, 19-20 October, 2016

#### **Debashree Dattaray**

- Poster Presentation with Dr. Peter Keegan entitled “The Spirit that is one’s own”: A Conversation in Two Tongues” at the 7<sup>th</sup> Biennial International Indigenous Research Conference 2016 (IIRC 2016), hosted by NgāPae o teMāramatanga on 15-18 November 2016 in Auckland, Aotearoa New Zealand.

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- Presented and participated in a workshop on “Indigenous Food Sovereignty” organized by the Mira Szászy Research Center and NgâPae o te Mâramatanga (NPM) as part of the 7th Biennial International Indigenous Research Conference 2016 (IIRC 2016), hosted by Ngâ Pae o te Mâramatanga on 14 November 2016 in Auckland, Aotearoa New Zealand.
- Presentation of paper on “Cultural Memory and the Birth of a Nation: Jâtakasin the writings of Gandhi and Rabindranath” at the Annual International SARI Colloquium entitled “Variations, Rewritings and Adaptations of the JâtakaTales and Buddhism in India Today” organized by the Universities of Paris 13, Paris Owest Nanterre La Defense and Rouen on 26 – 28 May, 2016.

#### **Sumit Kumar Barua**

- Presented a self-poetry on “Buddher Uddese Vaddakacchayana” in a State Level Seminar on “SwaracitaKavita Path-Prasanga: Buddha” organized by *Nalanda*, Buddhism and Indian Cultural Journal, Kolkata, 18 June 2016.
- Participated a National Seminar on “Reconstructing History through Museums and the Living issue of Archaeology and Museology”, organized by The Asiatic Society, Kolkata, 22 and 23 August 2016.
- Participated a National Seminar on “Prabuddha Bharat: Understanding Dr. B. R. Ambedkar in the Passage of Time”, organized by The Asiatic Society, Kolkata, 26 and 27 August 2016.

#### **3. C. Seminar/Workshop/Conference/Symposium Organized:**

(Name of the Teacher, Name of the Paper Presented, if any, Name of the Seminar, Place, Duration)

#### **Kunal Chattopadhyay**

- Organised the panel **The Many Languages of Communist Cultural Resistance in India** at the International Comparative Literature Association, XXIth World Congress, University of Vienna, July 21<sup>st</sup> to 27<sup>th</sup> , 2016

#### **Suchorita Chattopadhyay**

- Coordinator, International Conference on Canadian Studies entitled “Of Conflicts and Landscapes: The Rhetoric of Performance and Visual Art in Canada” organized by Centre for Canadian Studies Jadavpur University in collaboration with Shastri Indo-Canadian Institute at Jadavpur University Kolkata on March 7 - 9, 2017.

#### **Kavita Panjabi**

- Dastangoi – Performance as Pedagogy, CAS III workshop with ‘dastango Ankit Chadha, organized jointly with Sujit Kumar Mandal, from January 29 to February 4, 2017.

#### **Parthasarathi Bhaumik**

- Seminar Coordinator, International Seminar on ‘*Shifting Significations of Borders in Contemporary South Asia and the Americas*’, Jadavpur University, 19 & 20 January 2017
- Seminar Coordinator, Debrupa Bal National Students’ Seminar on ‘India, the Self and the Other: Conflict, Dialogue and Synthesis’, 2-3 February, 2017, Jadavpur University
- Seminar Coordinator, Workshop on ‘Digital Audio Technologies’, 24 February 2017, Jadavpur University

**Sayantan Dasgupta**

- Nepali-Bangla, Nepali-English translation workshop on ‘Contemporary Indian Nepali-Language Writings (2000-2015)’, June 20 – 24, 2016, as part of Project Anuvad (UGC University with Potential for Excellence Phase 2: Cultural Resources and Social Sciences) (State Level)
- Nepali-English translation workshop on ‘Nepali Children’s Literature’ from the book “Prakritiko Priya Ghar” from October 24-28, 2016, as part of Project Anuvad (UGC University with Potential for Excellence Phase 2: Cultural Resources and Social Sciences) (Local-Level)
- Seven-day international Nepali-Bangla translation Workshop on ‘The Nepali Lahari-Sawai’, from November 21 to 29, 2016, as part of Project Anuvad (UGC University with Potential for Excellence Phase 2: Cultural Resources and Social Sciences) (International Level).
- Nepali-English, Nepali-Bangla translation workshop on Sanu Lama’s Short Stories, from December 15 to 20, 2016 as part of CENTIL ‘Translation as Skill’ course work.
- International Winter School on Literary Translation 2017, in collaboration with the British Centre for Literary Translation (BCLT), University of East Anglia and Writers’ Centre Norwich, January 30 and 31, 2017

**Epsita Halder**

- From Mourning to Martyrology: Karbala Narratives in late 19<sup>th</sup> – early 20<sup>th</sup> century Bengal, at the one day symposium on Literature and Affect, organized by the Centre for Comparative Literature, Visva-Bharati and Sahitya Academy, on 23 April 2016
- Reclaiming the Sacred: Bengal Muslim Community’s Quest for Identity and Modernity in Scriptural Sources at XIII CLAI Biennial International Conference organized by the Centre for Comparative Literature, Visva- Bharati, Santiniketan in collaboration with Comparative Literature association of India, 6-7-8 March 2017

**Debashree Dattaray**

- Coordinator, International Conference on Canadian Studies entitled “Of Conflicts and Landscapes: The Rhetoric of Performance and Visual Art in Canada” organized by Centre for Canadian Studies Jadavpur University in collaboration with Shastri Indo-Canadian Institute at Jadavpur University Kolkata on March 7 - 9, 2017

**4. A. Books/Monographs etc. Published :**

(Name of the Teacher, Name of the Book, Name of the Publisher)

**Kunal Chattopadhyay**

- The Thucydides of the Russian Revolution: Leon Trotsky’s *History* in Retrospect, (jointly with Soma Marik), *Economic and Political Weekly*, Vol. 52, Issue 10, 11 March 2017.
- Review Article: The Socialist Vision and the Silenced Voices of Democracy by Sobhanlal Dutta Gupta, in *পরিচয়*, সমালোচনা সংখ্যা, ১৪২৩

**Kavita Punjabi**

**Book Authored**

- *Unclaimed Harvest: An Oral History of the Tebhaga Women’s Movement*. Zubaan Books, Delhi and Indian Institute of Advanced Studies, Shimla, 2016.

### Articles in Edited Books

- “Aesthetics in the Making of History: The Tebhaga Women’s Movement in Bengal”, in Eds: Puri, S, Castillo, Debra A. (Eds.). *Theorizing Fieldwork in the Humanities: Methods, Reflections, and Approaches to the Global South*. New York: Palgrave Macmillan, 2016.
- “The ‘Man-Made’ Famine and Women’s Responses to Hunger: The Pivotal Dynamics of Food in the Tebhaga Movement” in Ed. Uma Chakravarti, *Thinking Gender, Doing Gender: Feminist Scholarship and Practice Today*. New Delhi: Orient Blackswan, 2016.

### Sayantan Dasgupta

- Ed., with Kavita Lama. *Call of the Hills: A Coursebook of Indian Nepali Literature in Translation Volume 1* (revised second edition). Jadavpur University Press: Kolkata, April 2016.
- With Sieghild Bogumil, *Comparative Literature in Germany*. Jadavpur University (Centre of Advanced Study, Department of Comparative Literature): Kolkata. March 2017.

### Parthasarathi Bhaumik

- ‘টি এস এলিয়ট: সাহিত্য পত্রিকা বিষয়ক ধারণা’ (অনুবাদ), *লিটল ম্যাগাজিন: পর্ব-পর্বান্তর* (সম্পাদ: বরেন্দু মণ্ডল), কথাপ্রকাশ, ঢাকা, বাংলাদেশ, ২০১৭

### 4. B. Articles Published in Journals: (Including National/International & Peer-reviewed Journals)

(Name of the Teacher, Name of the Articles, Name of the Journal, Date of Publication, Volume)

### Sujit Kumar Mandal

- Translation: “Chhota Patrika” (Ezra Pound’s “Small Magazines”) in *Little Magazine: Parba-Parbantar* ed. Barendu Mandal, Dhaka: Kathaprakash, Jan 2017.
- 2. Translation: “Little Magazin-er Dayitwa” (Lionel Trilling’s “The Function of Little Magazine”) in *Little Magazine: Parba-Parbantar* ed. Barendu Mandal, Dhaka: Kathaprakash, Jan 2017.

### Sayantan Dasgupta

- “Postcolonial Indian Drama in English” (review article) in Marc Maufort ed., *Recherche Litteraire* Summer 2016. May 2016.
- “Revisionist Historiography” in Kavita Panjabi ed., *Jadavpur Journal of Comparative Literature* 53. 2016.
- “Cricket, Colonialism and Racism: Reading Krisantha Sri Bhaggiyadatta” in Suchorita Chattopadhyay and Debashree Dattaray eds., *At the Crossroads of Culture and Literature*. Primus: New Delhi, 2016.

### Parthasarathi Bhaumik

- ‘Forgettable Homecoming: Bengali Writings on Indian Exodus from Burma’. *Sahitya*, Journal of Comparative Literature Association of India, November 6-7. 2016
- Parthasarathi Bhaumik, Book Review: Chaudhuri, Rosinka, ‘*The Literary Thing*:



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*History, Poetry and the Making of a Modern Cultural Space*. Jadavpur Journal of Comparative Literature, Vol. 51-56, 2014-16

- Parthasarathi Bhaumik, 'Parul Devi: A Few Days in Japan' (Translation), *Marg Asia*, Journal of Centre for Asian Studies (ISSN 2349-5081), Winter 2016

#### **Epsita Halder**

- <https://cafedissensus.com/2016/07/19/following-the-sacred-graves-image-voice-fragrance-at-the-mazars-of-kolkata/>
- <http://sarai.net/decreed-and-devotion-sacred-property-on-internet/>
- <http://sarai.net/the-attentive-heart-and-its-apparatuses-facebook-bluetooth-whatsapp/>
- <http://sarai.net/media-and-mobilization-digital-media-and-the-shia-public-sphere-in-west-bengal/>
- <http://sarai.net/mourning-martyrdom-on-facebook-a-cyber-imagined-community/>

#### **Book review article:**

- <http://himalmag.com/purchasing-power-review-river-of-flesh-and-other-stories-the-prostituted-woman-in-indian-short-fiction-epsita-halder/>
- Oxford University Press Six Novellas (New Delhi: OUP, 2013) in *Jadavpur Journal of Comparative Literature*, April 2016

#### **Samantak Das**

- *Stray Reflections on Education from a Broadly Buddhist Perspective* (Kolkata: Bauddha Dharmankur Sabha [Bengal Buddhist Association]; 2016)

#### **Debashree Dattaray**

- "Humour in Literature and Culture: A Transcultural Perspective" (Book Review of *Humour: Texts and Contexts* Eds. P.P. Ajayakumar, Lal C.A, KalyaniVallath, Babitha Justin, Sanchita J. Chitra V.R, Creative Books: New Delhi, 2015) in *The IACLALS Journal*, Volume 2, New Delhi: Pencraft International, 2016, pp 119 – 121,ISSN-2395- 1206.
- "In Conversation with RituparnoGhosh: Readings on Filmmaking, Stardom, Sexual Identity Politics" (Book Review of *Rituparno Ghosh: Cinema, Gender and Art* edited by Sangeeta Datta, Kaustav Bakshi and Rohit K. Dasgupta, Routledge India: New Delhi, 2016)) in *Littcrit: An Indian Response to Literature* (Issue 81, Volume 42, Number 1, June 2016– peer reviewed), 144-147 pp. ISSN: 9070-8049
- "An Alternative Historiography: Articulating Dalit identity in G. Kalyana Rao's *Untouchable Spring* in *PURJA: Panjab University Research Journal (Arts)* (Volume XLIII, Nos. 1 & 2, April – October, 2016), pp 49-60, ISSN: 09705260
- Book Review: Manohar Mouli Biswas, *Surviving in my world: Growing up Dalit in Bengal* *Contemporary Voice of Dalit* May 2016 8:105-107
- "**Soft Power:** Marginalized Aesthetics in Jeannette Armstrong's Fiction" in *At the Crossroads of Culture and Literature* edited by Suchorita Chattopadhyay and Debashree Dattaray (Primus Books, New Delhi, 2016– ISBN 978 – 93 – 84082 – 71 - 0), 73 – 84 pp.

#### **Sumit Kumar Barua**

- "Bouddhadarshane Tyag-Paramitar Bhabna O Rabindra-Kathakavya 'Srestho-Vikkha'y Tar Protigrohon", in *Bodhibharati*. Choudhury, Hemendu Bikash (Ed.), p. 14-21. Regd. No. S/10445 of 1970-71. Kolkata: October, 2016.

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- Book Review: “AsiarAlok (*The Light of Asia*)” (Author: Sir Edwin Arnold, Translator: Dr. Lata Das Pal), in *Nalanda*, Anagarik Munindra Special Issue, Year, Bhikkhu, Sumanapal (Ed.), p. 283-285, ISSN No: 2320-7264, Kolkata: December, 2016.

### **5. Collaborative Programmes:**

#### **Suchorita Chattopadhyay**

- Ongoing Collaborative Project on “Comparing Comparative Literatures” along with Dr. Robin McKenzie, University of St. Andrews, Scotland.

#### **Kavita Panjabi**

##### **International**

- With Professor Shalini Puri, Dept of English, University of Pittsburgh, talk “Memory-Work and the Grenada Revolution: A Love Letter from the Humanities” on Fri 18<sup>th</sup> Nov, 2016. This was a Public Lecture on Method - towards an Interdisciplinary Public Humanities, delivered as part of continuing collaborative research on Fieldwork in the Humanities.

##### **National**

- With dastango Ankit Chadha, N. Delhi, dastangoi workshop, as part of collaborative research Dastangoi – Performance as Pedagogy, on literature and storytelling (with Dr. Sujit Kr. Mandal)

#### **Sayantana Dasgupta**

- A talk by Dr. Prof. Michaela Albl-Mikasa (Zurich University of Applied Sciences, Switzerland) on ‘*Multilingualism, Translation, Interpreting and English as a Lingua Franca in Europe*’ in collaboration with School of Languages and Linguistics, Jadavpur University, on the December 20, 2016
- International Winter School on Literary Translation 2017, workshop for translation of Odia, Bangla, Nepali and English literary texts in English and/or Bangla, in collaboration with the British Centre for Literary Translation (BCLT), University of East Anglia and Writers’ Centre Norwich, January 30 and 31, 2017

### **6. Major Achievements:**

#### **Sujit Kumar Mandal**

- Organized a course on Oral History and the Art of Listening (166025F02), under MHRD Scheme on Global Initiative of Academic Networks (GIAN) from 9–16 November, 2016, in Budhhadeva Bose Sabhaghar, which was attended by 26 external participants and 26 participants from Jadavpur University. The course was taught by one of the most internationally renowned experts in the field of orality—Professor Alessandro Portelli, scholar of literary studies, whose contribution to the fields of folklore, culture and oral history has been widely acclaimed as decisive.

#### **Epsita Halder**

- Received Sarai-CSDS Social Media Fellowship 2016 (March-August)



## **ECONOMICS**

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\* **Collaborations** : (National/International) MoU signed during the period 1.4.2016 to 31.3.2017

**2. C. Collaborations** :(National/International) MoU signed during the period 1.4.2016 to 31.3.2017, **from the Department of Economics**

### **Prof. Joyashree Roy**

NATCOM-III, MOEF, Govt. of India: “Assessment of economic cost of impact of heat stress on labour productivity and adaptation in selected building and transport sector”. UC Berekley for DIL project.

\* **List of Major Projects : With 10 Lakhs & above from 1.4.2016 to 31.3.2017, from the Department of Economics**

### **Prof. Ajitava Raychaudhuri**

Co-investigator in individual project titled “Financial Literacy and Financial inclusion: How are they related” funded by Indian Council for Social Science Research with PI as Malabika Roy and co-investigator as Tanmoyee Banerjee. **Rs. 10 lakhs**

### **Prof. Joyashree Roy**

Co-investigator in individual project titled “Commercializing a scalable low-cost arsenic remediation technology for societal impact” (in collaboration with University of California, Berkeley) funded by Indo- US Science and Technology Forum (IUSSTF). **Rs. 80 lakhs**

Co-PI in individual project titled “Demonstrating a Sustainable Solution for Arsenic Removal from Drinking Water and sustainable Arsenic bearing Sludge Management” (in collaboration with University of California, Berkeley) funded by USAID- DIL Sub award. **Rs. 20 lakhs**

Co-PI in individual project titled “Assessment of economic cost of impact of heat stress on labour productivity and adaptation in selected building and transport sector” funded by NATCOM-III, MOEF, Govt. of India. **Rs. 38 lakhs**

### **Prof. Malabika Roy**

Principal Investigator in individual project titled “Financial Literacy and Financial inclusion: How are they related” funded by Indian Council for Social Science Research with co-investigator as Ajitava Raychaudhuri and Tanmoyee Banerjee. **Rs. 10 lakhs**

### **Prof. Tanmoyee Banerjee**

Co-investigator in individual project titled “Financial Literacy and Financial inclusion: How are they related” funded by Indian Council for Social Science Research with PI as Malabika Roy and co-investigator as Ajitava Raychaudhuri. **Rs. 10 lakhs**

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**Section II ( Academic)**

**1. A. Courses Offered :** (Name of the Course, Duration of the Course, No of Students Enrolled)

Bachelor of Arts	3 years	<b>177</b>
Master of Arts	2years	<b>121</b>
M.Phil	2 Years	<b>20</b>
PhD		<b>65</b>

**1. B. Number of Faculty Members: 25**

**2. A. Area of Research Activities:** (Broad Areas)

**Prof. Ajitava Raychaudhuri**

Development economics, International trade.

**Prof. Ambar Nath Ghosh**

Current state of Economics, National and Global macroeconomic scenario.

**Prof. Amit Kundu**

Development Economics.

**Prof. Arpita Ghose**

Econometrics, Macro Economics, Applied Economics, Economics of Social Sector and Regional Development.

**Prof. Basabi Bhattacharya**

Finance: — Financial Markets, Financial Risk Management, Financial Inclusion, Banking Fragility.

**Prof. Bhaswar Moitra**

Economic Theories—Game Theory, Social Network Theory.

**Prof. Biswajit Chatterjee**

Development Economics, International Trade.

**Prof. Gautam Gupta**

Environmental Economics and Valuation of non-market services, Experimental Economics, Development Economics.

**Prof. Joyashree Roy**

Broad area of research is Resource and Environmental Economics. Focus of current research is more towards Economic and Social Dimensions of Climate Change, Water resource management and multidisciplinary research on sustainable development, social embedding of new innovation.

**Prof. Malabika Roy**

Financial Economics, Industrial Organization, Development Economics.

**Prof. Prabirjit Sarkar**

Issues of Development and Institutional Economics.

**Prof. Rajat Acharyya**

International Economics, Economic Theory

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**Prof. Saikat Sinha Roy**

Applied International Trade and Development, Open Economy Macroeconomics

**Prof. Siddhartha Mitra**

Development Economics, Environmental Economics, Peace Economics, Applied Microeconomics

**Prof. Sushil Halder**

Economics of Social Sector, Human Vulnerability and Poverty.

**Prof. Swapnendu Bandyopadhyay**

Microeconomics, Game Theory, Economics of Contracts.

**Prof. Tanmoyee Banerjee**

Industrial Organisation, Microfinance, Micro econometrics.

**Prof. Vivekananda Mukherjee**

Applied Microeconomics, Public Economics.

**Dr. Asim K. Karmakar**

Macroeconomics, India's International Trade.

**Dr. Bidisha Chakraborty**

Growth theory, Development Economics, Socio Economics.

**Dr. Jugatan Barman**

Resource and Environment.

**Dr. Poulomi Roy**

Public Economics, Health Economics, Gender, Development Economics.

**Dr. Sanmitra Ghosh**

Experimental Economics, Applied Econometrics.

**Dr. Vikash Dixit**

Macroeconomics, Public Finance, and Indian Economy.

**Ms. Soma Mandal**

Economics of Social Sector.

**2. B. Major Research Project :** (Departmental/Individual, Name of the Project/Funding Agency)

**Prof. Ajitava Raychaudhuri**

Co-investigator in individual project titled "Financial Literacy and Financial inclusion: How are they related" funded by Indian Council for Social Science Research with PI as Malabika Roy and co-investigator as Tanmoyee Banerjee. **Rs. 10 lakhs**

**Prof. Amit Kundu**

Individual project titled "Economics of Happiness among Informal Workers of West Bengal" under the Cultural Resource and Social Science Group funded by UGC -UPE II (Phase II) Programme.

**Prof. Arpita Ghose**

Individual project titled “Productivity of Elementary Education In India” funded by Economies of education Programme UGC- UPE II, Jadavpur University.

**Prof. Joyashree Roy**

Individual Research project under University of Potential Excellence - II (UPE - II) on “National Adaptation Strategy formulation for reduction of climate induced risk to labour productivity” funded by University Grants Commission (UGC)

Co-investigator in individual project titled “Commercializing a scalable low-cost arsenic remediation technology for societal impact” (in collaboration with University of California, Berkeley) funded by Indo- US Science and Technology Forum (IUSSTF). **Rs. 80 lakhs**

Co-PI in individual project titled “Demonstrating a Sustainable Solution for Arsenic Removal from Drinking Water and sustainable Arsenic bearing Sludge Management” (in collaboration with University of California, Berkeley)” funded by USAID- DIL Sub award. **Rs. 20 lakhs**

Co-PI in individual project titled “Assessment of economic cost of impact of heat stress on labour productivity and adaptation in selected building and transport sector” funded by NATCOM-III, MOEF, Govt. of India. **Rs. 38 lakhs**

**Prof. Malabika Roy**

Principal Investigator in individual project titled “Financial Literacy and Financial inclusion: How are they related” funded by Indian Council for Social Science Research with co-investigator as Ajitava Raychaudhuri and Tanmoyee Banerjee. **Rs. 10 lakhs**

Principal Investigator in individual project titled “Role of Caste-based Identity on Distribution of Public Goods and Participatory Development-A Case Study of Selected Gram Panchayats in West Bengal” funded by CAS, Department of Economics, Jadavpur University, Kolkata with co-investigator as Vivekananda Mukherjee. **Rs 80 thousand (Approx.)**

**Prof. Sushil Halder**

Individual project titled “Incidence, Depth, Severity and Determinants of Multidimensional Poverty among Different Socio-Ethnic Groups: A Case Study of Selected Districts of Rural West Bengal” funded by CAS, Dept. of Economics, Jadavpur University with co-investigator as Poulomi Roy.

**Prof. Tanmoyee Banerjee**

Co-investigator in individual project titled “Financial Literacy and Financial inclusion: How are they related” funded by Indian Council for Social Science Research with PI as Malabika Roy and co-investigator as Ajitava Raychaudhuri. **Rs. 10 lakhs**

Individual project titled “Impact of Government Rural Housing Policy like Indira Awas Yojana on Indoor Air Pollution and Other Related Health Hazards” funded by UPE-II, Jadavpur University with co-investigator as Poulomi Roy.

**Prof. Vivekananda Mukherjee**

Principal Investigator in individual project titled “Role of Caste-based Identity on Distribution of Public Goods and Participatory Development-A Case Study of Selected

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Gram Panchayats in West Bengal” funded by CAS, Department of Economics, Jadavpur University, Kolkata with co-investigator as Malabika Roy. **Rs 80 thousand (Approx.)**

#### **Dr. Asim Karmakar**

Individual project titled “Two and Half Decades of India’s Balance of Payments Scenario: Issues and Challenges “ funded by UGC CAS, Dept. of Economics, Jadavpur University with co-investigator as Sanmitra Ghosh. **Rs. 70,000/-**

#### **Dr. Poulomi Roy**

Individual project titled “An exposure study of biomass fuel in Rural West Bengal and Cost of associated respiratory infection on Household” funded by Innovative research Project Grant, Jadavpur University. **Rs. 80000**

Individual project titled “Impact of Government Rural Housing Policy like Indira Awas Yojana on Indoor Air Pollution and Other Related Health Hazards” funded by UPE-II, Jadavpur University with co-investigator as Tanmoyee Banerjee.

Individual project titled “Incidence, Depth, Severity and Determinants of Multidimensional Poverty among Different Socio-Ethnic Groups: A Case Study of Selected Districts of Rural West Bengal” funded by CAS, Dept. of Economics, Jadavpur University with co-investigator as Sushil Halder.

#### **Dr. Sanmitra Ghosh**

Individual project titled “Identification and estimation of familiarity bias: An experimental study,” funded by Innovative Research Activity under UGC XIIth Plan GDA. **Rs. 90,000/-.**

Individual project titled “Two and Half Decades of India’s Balance of Payments Scenario: Issues and Challenges “ funded by UGC CAS, Dept. of Economics, Jadavpur University with co-investigator as Asim Karmakar. **Rs. 70,000/-**

- 2. C. Collaborations** :(National/International) MoU signed during the period 1.4.2016 to 31.3.2017

#### **Prof. Joyashree Roy**

NATCOM-III, MOEF, Govt. of India: “Assessment of economic cost of impact of heat stress on labour productivity and adaptation in selected building and transport sector”. UC Berkeley for DIL project.

#### **3. A. Invited Lectures Delivered/Sessions Chaired:**

#### **Prof. Ajitava Raychaudhuri**

Delivered keynote address at Confronting Development: Perspectives On Marthwada in Babasaheb Ambedkar Marathwada University, Aurangabad during 9<sup>th</sup>-11<sup>th</sup> May, 2016.

Delivered keynote address at Development of Backward Regions of West Bengal with Special Reference to Growth and Productivity of Different Sectors in Vidyasagar University, West Bengal on 23<sup>rd</sup> March, 2017.

Keynote speaker at Balancing Economic Growth with Environmental Sustainability in Dhruba Chand Halder College, West Bengal during 12<sup>th</sup> -13<sup>th</sup> August, 2016.

Invited speaker at ISI-Manchester University Conference on Politics and Development in Indian Statistical Institute, Kolkata on 19<sup>th</sup> December, 2016.

Delivered Special lecture in a seminar at Rabindra Bharati University on 2<sup>nd</sup> February, 2017.

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Resource person at the Short term Course on Research Methods at the Department of Economics, Jadavpur University on 11<sup>th</sup> January, 2017.

Resource person at Second Refresher Course on Research Methodology in Social Sciences at University of Burdwan 25<sup>th</sup> March, 2017

#### **Prof. Arpita Ghose**

Chaired a session in Conference on Empirical Issues in International Trade and Finance (EIITF) at Kolkata during 16<sup>th</sup> and 17<sup>th</sup> December, 2016.

Delivered Special lecture entitled: "Education and Economic Growth" in UGC Sponsored two days National Seminar on "Education, Skill Development and Economic growth in India". at Prabhu Jagat Bandhu College Andul, Howrah during 6<sup>th</sup>-7<sup>th</sup> December, 2016.

Chaired a session in A Two-day UGC Sponsored Seminar on "Contemporary Issues in Development Economics" at Rabindra Bharati University during 14<sup>th</sup> -15<sup>th</sup> February, 2017.

Delivered a lecture on: Simultaneous Equation System in Short term Course on Research Methodology at Jadavpur University, Kolkata on 14<sup>th</sup> January, 2017.

Invited Lecture Series on "Advanced Macroeconomics" at the Department of Economics, Calcutta University, Kolkata, during Jan-May 2017.

#### **Prof. Basabi Bhattacharya**

Chaired a session in "International Conference on Financial Markets & Corporate Finance" at IIT Chennai during 12<sup>th</sup>-13<sup>th</sup> August, 2016.

Chaired a session in UGC sponsored National Seminar on "Inclusive Growth and Economic Sustainability of Self-Financed Courses in India" at Naba Ballygunge MahaVidyalaya, Kolkata on 21<sup>st</sup> August, 2016.

Chaired a session in a Seminar on "Empirical Issues in International Trade and Finance" at Indian Institute of Foreign Trade, Kolkata during 16<sup>th</sup>-17<sup>th</sup> December, 2016.

#### **Prof. Biswajit Chatterjee**

Chaired a session in Global Conference on Prosperity, Equality and Sustainability at World Bank and IHD at New Delhi during 1<sup>st</sup> -3<sup>rd</sup> June, 2016.

Chaired a session in 58<sup>th</sup> Annual Conference of the Indian Society of Labour Economics. at IIT, Guwahati during 24<sup>th</sup>-26<sup>th</sup> November, 2016.

Chaired two technical sessions and delivered one special lecture in 53<sup>rd</sup> Annual Conference of The Indian Econometric Society at NSER, Bhubaneswar during 22<sup>nd</sup>-24<sup>th</sup> December, 2016.

Was an invited panelist to speak on "Current State of Social Science Research in India" in 99<sup>th</sup> Annual Conference of the Indian Economic Association at S.V. University, Tirupati during 27<sup>th</sup>-29<sup>th</sup> December, 2016.

Was an invited speaker on "Education and Economic Development :Challenge for India" in 17<sup>th</sup> National Conference of IASSI at CRRID, Chandigarh during 9<sup>th</sup>-10<sup>th</sup> December, 2016.

#### **Prof. Gautam Gupta**

As Resource person, delivered six lectures on experimental economics in Faculty Development Program at Veer Narmad South Gujarat University, Surat during 28<sup>th</sup> March-2<sup>nd</sup> April, 2016.



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### **Prof. Joyashree Roy**

Chaired a Session on “Scenarios for Himalaya–Hindukush region” in ICIMOD-HIMAP, writeshop for authors at Kathmandu, Nepal in 2016.

Chaired a session on “How to communicate Climate Change Related scientific messages to public” in IPCC AR6 media and workshop at Oslo- Norway in 2016.

Delivered invited lecture on “Case study of India: Multilayered Complexities” in PRIO-Climate Governance at Oslo- Norway in 2016.

Delivered invited talk on “Mission Decarbonisation” in TEDx talk at Belgium in 2016.

Chaired a session on “Poverty and Energy” in Breakthrough Dialogue at USA in 2016.

Co-chair of scenario session in HIMAP , authors meeting at Nepal in 2016.

Delivered invited lecture on “social transition” in IPCC meeting, 1.5 Degree world at Switzerland in 2016.

Co-chair the session on “Implementations” in IPCC meeting, 1.5 Degree world at Switzerland in 2016.

Delivered invited talk on “Coastal risks and adaptation” in EMEICS at Russia in 2016.

Co-chair the session on “Solutions” in Future-Earth and IPCC meeting on Sustainable development at Sweden in 2016.

Chaired a session and delivered invited lecture on “deep de-carbonisation in Indian industries” in IGES meeting on Low carbon network at Germany.

Delivered invited lecture on “possible renewable future for India” in INCP-meeting at Norway in 2016.

Theme lead author on “Financing energy transitions” in EEG Conference, at USA in 2016.

Delivered invited lecture on “Social placement of arsenic remediation technologies” in World water summit at Hungary in 2016.

Delivered invited lecture on “Sustainable Development: Challenges and Opportunities” in the Short Term Course on “Engineering and Materials for Sustainable Development” under Global Initiative of Academic Networks (GIAN), MHRD, Govt. of India at Jadavpur University Kolkata on 2<sup>nd</sup> Feb 2017.

Delivered distinguished lecture on “Climate Change : Challenges and Opportunities” at 24<sup>th</sup> West Bengal State Science and Technology Congress 2017 on Feb 28-March 1, 2017.

### **Prof. Malabika Roy**

Chaired the technical session on Finance and Development in 6th IGC-Jadavpur University-ISI West Bengal Growth Conference at Jadavpur University, Kolkata on 29<sup>th</sup> December, 2016.

Chaired the Technical session on Credit Related Issues.in A Two-day UGC-Sponsored Seminar on “Contemporary Issues in Development Economics at Department of Economics, RabindraBharati University on 15<sup>th</sup> February, 2017.

Chaired a session in XXVI<sup>th</sup> Annual Conference on Contemporary Issues in Development at Jadavpur University, Kolkata on 22<sup>nd</sup> December, 2016.



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Delivered a lecture on: Sampling methods: tools and techniques. in Short term Course on Research Methodology at Jadavpur University, Kolkata on 13<sup>th</sup> January, 2017.

#### **Prof. Rajat Acharyya**

Delivered valedictory address entitled: “The New World Trading Order” in India, China and the New World Order: Economic, Social and Cultural Dimensions at International Management Institute, Kolkata on 25<sup>th</sup> November, 2016.

Delivered special lecture on “Trade and Economic Development” in Empirical Issues in International Trade and Finance at Indian Institute of Foreign Trade, Kolkata during 16<sup>th</sup>- 17<sup>th</sup> December, 2016.

Delivered invited lecture on “China-ASEAN Monetary and Financial Cooperation: Prospects and the Way Ahead” at Forum on China-ASEAN Financial Cooperation and Development under one Belt and one Road-Agenda, held at Yunnan Normal University, Yunnan, China during 25<sup>th</sup> October, 2016.

#### **Prof. Saikat Sinha Roy**

Delivered 2 lectures on ‘Globalisation and the Indian Economy’ at 104<sup>th</sup> Orientation Program held at UGC-Human Resource Development Centre, Burdwan University on 23<sup>rd</sup> July, 2016.

Delivered a lecture on “Trade Reforms in India: What have we Achieved?” at Economics Seminar Series, held at Department of Economics, Flame University, Pune on 24<sup>th</sup> January, 2017.

Delivered two lectures on “Statistical Analysis in Development” at Refresher Course in Economics and Management held at HRDC/Academic Staff College, Calcutta University, Kolkata at the Department of Economics, Calcutta University, Kolkata on 4<sup>th</sup> March, 2017.

Delivered an Invited Lecture on “Are all Indian states prepared for the Make in India program?” at National Conference on Issues in Economic Development (under the UGC-DSA Phase II) held at Department of Economics, University of Kalyani, Nadia, during 22<sup>nd</sup>-23<sup>rd</sup> March, 2017.

Delivered the Keynote paper entitled: “Development Performance: How different is the pattern in Eastern and Northeastern States from Others?” at National Seminar on Regional Development Differentials in Eastern and North Eastern India, (under the UGC-SAP DRS III) held at Department of Economics, University of North Bengal, India) during 24<sup>th</sup>-25<sup>th</sup> March, 2017.

Invited Lecture Series on “Advanced Macroeconomics” at the Department of Economics, Calcutta University, Kolkata, during July-December 2016.

Participated as a resource person at Consultation Meeting on “India and FTAs: Way Forward” with Smt. Nirmala Sitharaman, MoS (Independent Charge), GOI held at Department of Commerce, Government of India, organized by RIS, New Delhi, at India Habitat Centre, New Delhi on 14<sup>th</sup> April, 2016.

Chaired a session on “BOP and Exchange Rate” at Fifth IIFT Conference on Empirical Issues in International Trade and Finance held at Indian Institute of Foreign Trade, Kolkata on 16<sup>th</sup> December, 2016.

Chaired the invited lecture 2 delivered by Professor Sajal Lahiri of Southern Illinois University, Carbondale on “Entry and Survival in the Export market: Spillovers from

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Outward-looking Domestic and Foreign Firms in Ethiopia” at 6<sup>th</sup> Research Scholars’ Workshop held at The Department of Economics, Burdwan University, India on 20<sup>th</sup> December, 2016.

Chaired the technical session VI on “Trade Related Issues” at Two-day UGC Sponsored Seminar on Contemporary Issues in Development Economics held at Department of Economics, RabindraBharati University, Kolkata during 14<sup>th</sup>-15<sup>th</sup> February, 2017.

Chaired the technical session 2.2 at 6<sup>th</sup> Research Scholars’ Workshop held at 6<sup>th</sup> Research Scholars’ Workshop on 20<sup>th</sup> December, 2016.

Chaired a technical session at National Conference on Issues in Economic Development held at UGC-DSA Phase II, Department of Economics, University of Kalyani, West Bengal during 22<sup>nd</sup>-23<sup>rd</sup> March, 2017.

Invited Speaker at a session on “Employment Generation and Decent Work” at National Consultation on SDGs: Industrialisation and Employment for Sustainable Growth in India – Focus on SDGs 8 and 9 held at RIS, New Delhi and NITI Aayog, Government of India and the UN during 2<sup>nd</sup>-3<sup>rd</sup> August, 2016.

Panelist at the Pre-Budget Panel Discussion 2017 held at Flame University, Pune on 23<sup>rd</sup> January, 2017.

Panelist and guest of honour at Union Budget 2017-18 held at Bharat Chamber of Commerce and Industry, Kolkata on 1<sup>st</sup> February, 2017.

Panelist at the discussion meeting on Central Budget Proposals at Panel Discussion held at Bharat Chamber of Commerce and Industry, Kolkata on 1<sup>st</sup> February, 2017.

Panelist at a panel discussion entitled: “Analysis of Indian Budget 2017” at Two-day UGC Sponsored Seminar on Contemporary Issues in Development Economics held at Department of Economics, Rabindra Bharati University, Kolkata during 14<sup>th</sup>-15<sup>th</sup> February, 2017.

#### **Prof. Siddhartha Mitra**

Resource person for the session on “An Introduction to Environmental Valuation – Part II: Hedonic Pricing” in National Conference and Workshop on Environmental Policy and Practice at Centre for Advanced Studies, Department of Economics, Jadavpur University during 13<sup>th</sup>-14<sup>th</sup> March, 2017.

Delivered two invited lectures on Demonetisation in Refresher Course in Economics and Management for College and University teachers at Department of Economics, University of Calcutta on 17<sup>th</sup> March, 2017.

Panelist and guest of honour in Empirical Issues in Union Budget 2017-18: An In-depth Analysis at The Bengal Chamber of Commerce and Industry, Kolkata during 2<sup>nd</sup> February, 2017.

#### **Prof. Sushil Halder**

Delivered an invited lecture entitled: “Role of Education in Economic Development in India: Some Emerging Policy Issues” at Short Term (one week) Programme on Teachers as Educators held at Education Department, Jadavpur University sponsored by UGC-HRDC on 5<sup>th</sup> October 2016.

Delivered a Series of lecture during Oct to Nov-2016-at Raja Bazar Science College, CU on Applied Statistics and Research Methods for PhD Scholars.

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Delivered an invited lecture entitled: “Does Infrastructure play a Role in the Context of Inclusive Growth in India?” at UGC Sponsored National Seminar on “Economic Development and Inclusive Growth: India’s Development Experience” held at Department of Economics & Commerce, Madevananda Mahavidyalaya, Barrackpore, Kolkata during 20<sup>th</sup> -21<sup>st</sup> December, 2016.

Session Chaired at the 26<sup>th</sup> Annual Conference on Contemporary Issues in Development Economics’ at Jadavpur University, Kolkata, December, 2016.

Session Chaired at the International Seminar & 48<sup>th</sup> Regional Science Conference on *Rural Habitat, Institutions and Development: Changing Nature & Challenges* held at Tripura University (A Central University), Tripura, India during January 5 -7, 2017.

Delivered an invited lecture on Survey Research Methodology at International Conference cum Workshop held at Department of Commerce with Farm Management, Vidyasagar University on 11<sup>th</sup> February, 2017.

Delivered an invited lecture entitled “*Health and Economic Growth in India: Some Emerging Policy Issues at the Two Day Workshop-cum Training Programme on ‘Reproductive and Child Health’ for the Research Project, “Status of RCH for Slum Dwellers in Agatala”* funded by the NHM, Govt. of Tripura during 21<sup>st</sup> to 22<sup>nd</sup> March, 2017 held at Economics Department, Tripura University.

Delivered an invited lecture entitled: “Determinants of Declining Juvenile Sex Ratio in India A Panel Data Analysis” at Population Studies Unit, Indian Statistical Institute Calcutta on 27<sup>th</sup> February, 2017.

#### **Prof. Swapnendu Bandyopadhyay**

Session chaired in Contemporary Issues in Development Economics at Jadavpur University, Kolkata on 23<sup>rd</sup> December, 2016.

#### **Prof. Tanmoyee Banerjee**

Delivered an invited lecture entitled: “Issues in Women Empowerment” in Energizing Women Entrepreneurs & Empowering Women digitally at Shilpa Bichitra at Rotary Sadan, Kolkata on 8<sup>th</sup> March, 2017.

#### **Prof. Vivekananda Mukherjee**

Invited Lecture delivered on ‘Economics of Corruption’, at IIM, Indore.

Invited Lecture delivered on ‘Voting’, Course on Research Methodology, at Department of Economics, Jadavpur University.

Invited Lecture Series delivered on ‘Industrial Organization Theory’ at Burdwan University.

Invited Lecture Series delivered on ‘Welfare Economics’, at Gour Banga University.

Invited lecture delivered on “Sustainability of Finance of West Bengal Government” in Dhruba Chand Haldar College, West Bengal

Session Chaired in Conference on ‘Empirical Issues in Trade and Finance’ at Indian Institute of Foreign Trade, Kolkata.

Session Chaired in ‘26<sup>th</sup> Annual Conference on Contemporary Issues in Development Economics’ at Jadavpur University, Kolkata.

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### **Dr. Asim K. Karmakar**

Chaired the technical session on the theme 'Globalisation and Unorganised Sector in India' in the UGC Sponsored National Level Seminar on Globalisation and Unorganised Sector in India at Jogesh Chandra Chaudhuri College in collaboration with Bethuadahari College, Nadia on January 6<sup>th</sup>, 2017.

Invited Lecture delivered on "Addressing India's Education and Skill Challenges For Faster and More Inclusive Growth" in the UGC Sponsored National Seminar on Education, Skill Development and Economic Growth at Department of Economics, Prabhu Jagatbandhu College, Jorehat, Andul-Mouri, Howrah-711 302 in collaboration with Ramsaday College, Amta, Howrah on 6<sup>th</sup> December, 2016.

T.S.P.Singh Memorial Lecture delivered on "The Rise of Regional Trade and Preferential Trading Agreements: Why Coming So Fast, and Where Are They Headed?" at T.P.S. College, Patna on 23 November, 2016.

Valedictory Address delivered at Mid-Year Seminar of BEA on "Environment and Sustainable Development" at Deshbandhu College for Girls. Kolkata on November 19<sup>th</sup>, 2016.

Chaired a Session in UGC Sponsored Two-Day National Seminar on "Assessment and Relevance of the Concept of Marx" at the Department of Philosophy, Prabhu Jagatbandhu College, Andul-Mouri, Howrah, in collaboration with Narasingha Dutt College, Howrah on 15<sup>th</sup> November, 2016.

Invited lecture delivered on "Contemporary Relevance of Karl Marx" in UGC Sponsored Two-Day National Seminar on "Assessment and Relevance of the Concept of Marx" at the Department of Philosophy, Prabhu Jagatbandhu College, Andul-Mouri, Howrah, in collaboration with Narasingha Dutt College, Howrah on 15<sup>th</sup> November, 2016.

Chaired a Session in the "International Seminar on Sustainable Development : Challenges and Strategies" Sponsored by ICSSR, UCOST, NABARD at the Department of Economics, Government P.G. College, Chamoli, Uttarakhand in collaboration with Indian Economic association(IEA) on 21<sup>st</sup> October, 2016.

Chaired the technical session on "Education and Economic Development w.s.r.t Globalization & SDG in North East Region" in the Indian Economic Association's International Conference at Morigaon College, Assam on 15<sup>th</sup> September, 2016.

### **3. B. Seminar/Workshop/Conference/Symposium Attended:**

(Name of the Teacher, Name of the Paper Presented, Name of the Seminar, Place, Duration)

#### **Prof. Ajitava Raychaudhuri**

Presented the paper titled "Regional Integration in the World: the Catalyst" at Myanmar Capacity Building Workshop, organized by CESD, ARTNeT and IPE-global held at Yangon, Myanmar during 9<sup>th</sup>-11<sup>th</sup> May, 2016.

#### **Prof. Amit Kundu**

Presented the paper titled "Influence of NREGS on Agricultural Wage Determination in West Bengal: A Dynamic Panel Approach." at 58<sup>th</sup> Annual Conference of The Indian Society of Labour Economics, organized by CESD, ARTNeT and IPE-global held at IIT Guwahati during 24<sup>th</sup>-26<sup>th</sup> November, 2016.

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**Prof. Basabi Bhattacharya**

Presented the paper titled “Return and Volatility Spillover among the Stock Markets of India, USA and Japan around the Global Financial Crisis of 2007-08: An Analysis” at International Conference on Financial Markets & Corporate Finance, held at IIT Chennai during 12<sup>th</sup>-13<sup>th</sup> August, 2016.

**Prof. Gautam Gupta**

Presented a paper on Land Acquisition at Sino-Indian Cross Cultural Dialogues, held at Dr. Sun Yat-sen University Guangzhou, China during 17<sup>th</sup> -19<sup>th</sup> June, 2016.

**Prof. Prabirjit Sarkar**

Presented a paper entitled: “Is there a Relationship between Shareholder Protection and Stock Market Development?” at 82nd International Atlantic Economic Conference, held at Washington, D.C. during 14<sup>th</sup>-16<sup>th</sup> October, 2016.

Presented a paper entitled: “Is there a Relationship between Shareholder Protection and Stock Market Development?” at JLFA Annual Conference, held at Northwestern Pritzker School of Law, Chicago, USA during 11<sup>th</sup>-12<sup>th</sup> November, 2016.

Presented a paper entitled: “Does Labour Law Hurt Labour by Reducing Employment?” at Conference of Cambridge Journal of Economics, held at Cambridge, UK during 12<sup>th</sup>-13<sup>th</sup> July, 2016.

Presented a paper entitled: “Does Labour Regulation Improve Income Distribution at the Cost of Decreased Employment and Productivity?” at Labour Standards and Labour Law Reforms in the Rising Powers: Trends and Prospects in Public and Private Regulations, held at Homerton College, Cambridge during 5<sup>th</sup>-6<sup>th</sup> September, 2016.

Presented a paper entitled: “Does Labour Law Hurt Labour by Reducing Employment in Developed and Emerging Countries?” at Jobs and Development Conference at., held at The World Bank, Washington, D.C. during 2<sup>nd</sup>-3<sup>rd</sup> November, 2016.

**Prof. Saikat Sinha Roy**

Presented a paper entitled: “SDG 10: A Primer on Trade, Infrastructure and Inequality across Countries” at ORF Social Science Research Seminar Series on Agenda for Discourses on Development Alternatives (ADDA)-I held at Observer Research Foundation, Kolkata on 23<sup>rd</sup> April, 2016.

Presented a paper Entitled: “Economic Reforms in South Asia: Some Explorations on Trade and FDI” at One Belt and One Road Overseas Scholar Conference held at Opening Economy and Trade Research Center, School of Economics and Trade, Shanghai Lixin University of Commerce, Shanghai, P. R. China on 20<sup>th</sup> May, 2016.

Presented a paper entitled: “Structural Change, Trade and Inequality: Some Cross-country Evidence” at Workshop on Structural Change and Inclusive Growth held at Asian Development Bank Institute, Tokyo, Japan during 20<sup>th</sup>-21<sup>st</sup> September, 2016.

Presented a paper entitled: “Is there a Case for China-India Economic Co-operation?” at International Seminar on India and China in Emerging Asian Domain: The Road Ahead held at The Netaji Institute for Asian Studies, Kolkata, The School of Chinese Language, Kolkata, and H. P. Biswas India-China Cultural Study Centre, Jadavpur University, Kolkata on 23<sup>rd</sup> September, 2016.



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Presented a paper on “Exchange Rate Return Co-movements and Volatility Spillovers: The Case of Emerging Market Economies” at QIP Sponsored Summer Workshop in Economics on Theory meets Empirics held at Economics Unit, Department of Humanities and Social Sciences, Indian Institute of Technology Delhi, New Delhi during 8<sup>th</sup>-9<sup>th</sup> April, 2016.

Presented a paper entitled: “Global Commodities Market and Resource Security: Implications for India” at TERI-KAS Resource Dialogue on Resource Security: Contextualizing Domestic Interests in the Global Trade and Investment Framework held at TERI, New Delhi at the TERI Retreat, Gual Pahari, Gurgaon during 24<sup>th</sup>-26<sup>th</sup> October, 2016.

Presented a paper entitled: “Are all Indian states prepared for the Make in India Initiative?” at Workshop on India Development Report 2017 held at Indira Gandhi Institute for Development Research, Mumbai during 18<sup>th</sup>-19<sup>th</sup> July, 2016.

Discussant of a paper by N. P. Ravindra Deyshappriya entitled: “Impact of Macroeconomic Factors on Income Inequality and Income Distribution in Asian Countries” at Workshop on Structural Change and Inclusive Growth organized held at Asian Development Bank Institute, Tokyo, Japan during 20<sup>th</sup>-21<sup>st</sup> September, 2016.

Discussant in the session on “Financing for Sustainable Urbanisation” at ADB-Asian Think Tank Development Forum 2016 on Promoting Sustainable Urbanisation in Asia and Pacific held at ADB & NIPFP, ICRIER at New Delhi during 26<sup>th</sup>-28<sup>th</sup> October, 2016.

Discussant in the session on “Annual Update of Indices on Cost of Living, Wages and Purchasing Power for Expatriates and Ordinary Residents for World’s Major 103 Cities” at 2016 Annual Asia Competitiveness Institute (ACI) Conference on Competitiveness Ranking of Sub-national Economies and Public Policy Studies in Greater China, India, Indonesia and ASEAN held at ACI at Lee Kuan Yew School of Public Policy, National University of Singapore, Singapore during 24<sup>th</sup>-25<sup>th</sup> November, 2016.

#### **Prof. Sushil Haldar**

Presented a paper entitled: “Growth of Work Force and Informal Sector in India: Some Emerging Policy Issues in the Context of Inclusivity” at One day UGC sponsored National Seminar on ‘State of the Informal Sector in Indian Economy in the context of Inclusive Growth’ held at City College of Commerce and Business Administration, Kolkata (in collaboration with the Department of Economics, University of Kalyani) on 16<sup>th</sup> August, 2016.

Presented a paper entitled: “Construction and Use of Reproductive and Child Health Deprivation Indices: Districts of West Bengal in India, A Case Study” at International Seminar & 48<sup>th</sup> Regional Science Conference on Rural Habitat, Institutions and Development: Changing Nature & Challenges held at Tripura University, Tripura, India on 6<sup>th</sup> January, 2017.

Delivered a lecture entitled: “Construction of Different Types of Indices- A Preliminary Note”. at One week Short Term Course on Research Methodology sponsored by UGC-HRDCC held at Department of Economics, Jadavpur University on 14<sup>th</sup> January, 2017.

Presented a paper entitled “Social and Economic Convergence in India over Time (1981-2014): Some Emerging Policy Issues” at the Seminar titled as “Globalization and Regional Development” organized by DSA Phase 1 Department of Economics, University of Calcutta during 28-29 March, 2017.

Delivered a lecture entitled: “A Panel Data Analysis” at a seminar held at Population Studies Unit, Indian Statistical Institute Calcutta on 27<sup>th</sup> February, 2017.

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### **Prof. Swapnendu Bandyopadhyay**

Presented a paper in STICERD Seminar, held at London School of Economics, UK during May, 2016.

Presented a paper at Business School, University of Nottingham, UK during May, 2016.

Presented a paper at London School of Economics, UK during June, 2016.

Presented a paper at Economics Department, University of Birmingham, UK during June, 2016.

### **Prof. Vivekananda Mukherjee**

Presented a paper entitled: "Political Economy of Corruption in Red Tape" at CTRPFP, Kolkata on February, 2017.

Presented a paper entitled: "Lobbying and Bribery" at Asia Pacific Economic Conference held at IMI, Kolkata on July, 2016.

### **Dr. Asim Karmakar**

Presented the paper entitled: "Two and a half decades of India's BoP: Policies and strategies" at 99<sup>th</sup> Annual Conference of the Indian Economic Association held at Sri Venkateswar University, Tirupati on 28th December, 2016.

Presented the paper entitled: "Anatomy and Consequences of India's Demographic Dividend" at the 18<sup>th</sup> Annual Conference of Economic Association of Bihar held at T.P.S. College, Patna during 22-23 November, 2016.

Delivered a lecture entitled: "Migration Remittances & Economic Development : A Case Study of South Asia" at International Seminar on Sustainable Development : Challenges and Strategies (Sponsored by ICSSR, UCOST, NABARD) held at Department of Economics, Government P.G. College, Chamoli, Uttarakhand in collaboration with IEA during 21-22 October, 2016.

Delivered a lecture entitled: "Taming Wide Spread Poverty in South Asia" at Indian Economic association's International Conference on Education and Economic Development w.s.r.t Globalization & SDG in North East Region held at Morigaon College, Assam during 15<sup>th</sup> September, 2016.

### **Dr. Bidisha Chakraborty**

Participated in Three day International Workshop on Computable General Equilibrium Models, which was organized by the Department of Economics, Jadavpur University during 9.1.2017 to 11.1.2017. Professor Selim Raihan, university of Dhaka and Executive Director, SANEM, Bangladesh taught in the workshop.

### **Ms. Soma Mandal**

Presented a paper entitled: "Measuring the Relationship between Female Child Disadvantage and Male Education for India". at Contemporary Issues in Development Economics, held at Rabindra Bharati University, Kolkata on 14<sup>th</sup> February, 2017.

### **3. C. Seminar/Workshop/Conference/Symposium Organized:**

(Name of the Teacher, Name of the Paper Presented, if any, Name of the Seminar, Place, Duration)

### **Prof. Ajitava Raychaudhuri**

Coordinated as Chairman of the local committee "6<sup>th</sup> West Bengal Growth Conference", with Vivekananda Mukherjee and Tanmoyee Banerjee as Conveners organized by the



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Department of Economics, Jadavpur University, and funded by UPE II Jadavpur University, ISI Calcutta, IGC, New Delhi at the Department of Economics, at Jadavpur University during 28<sup>th</sup> -29<sup>th</sup> December, 2016.

#### **Prof. Amit Kundu**

Coordinated jointly with Sanmitra Ghosh the “26<sup>th</sup> Annual Conference on Contemporary Issues in Development Economics, 2016” organized by Jadavpur University, ICSSR, West Bengal Government at the Department of Economics, Jadavpur University during 22<sup>nd</sup>-23<sup>rd</sup> December, 2016.

#### **Prof. Arpita Ghose**

Organized a three Day “International Workshop on Computable General Equilibrium Model” organized by the Department of Economics, Jadavpur University at Jadavpur University during 9<sup>th</sup>-11<sup>th</sup> January,2017.

#### **Prof. Joyashree Roy**

Organized seminar on “Co-benefits of energy efficiency: Quantifying productivity impact” at Global Change Programme-Jadavpur University on 2017, January 2016.

Organized seminar on “Reconstructing the idea of Social Business” at Global Change Programme-Jadavpur University on 2016, April 4.

Organized seminar on “Public Health Economics” at Global Change Programme-Jadavpur University on 2016, July 27.

Organized seminar on “Kolkata’s air quality: navigating solution space” at American Center, Kolkata on 2016, September 15 and September 24.

Organized seminar on “How US Shale Gas is making Indian LNG cheaper” at Electrical Engineering Department, Jadavpur University on 2016, December 15.

Organized the National Conference and Workshop on “Environmental Policy and Practice” with Siddhartha Mitra funded by CAS, Department of Economics, Jadavpur University at Jadavpur University during 13<sup>th</sup> and 14<sup>th</sup> March, 2017.

#### **Prof. Malabika Roy**

Organized the Workshop on “Spatial Econometrics” with Vivekananda Mukherjee funded by CAS, Department of Economics, Jadavpur University at Jadavpur University during 27-28 March, 2017.

#### **Prof. Siddhartha Mitra**

Organized the National Conference and Workshop on “Environmental Policy and Practice” with Joyashree Roy funded by CAS, Department of Economics, Jadavpur University at Jadavpur University during 13<sup>th</sup> and 14<sup>th</sup> March, 2017.

#### **Prof. Sushil Halder**

Organized one week “Short Term Course on Research Methodology” funded by UGC-HRDC at Jadavpur University during 9<sup>th</sup>- 17<sup>th</sup> January, 2017.

#### **Prof. Swapnendu Bandyopadhyay**

Organized the Workshop on “Cooperative Game Theory and Matching with Applications to Public Policy” with Tanmoyee Banerjee funded by CAS, Department of Economics, Jadavpur University at Jadavpur University on 7<sup>th</sup> September 2016.

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### **Prof. Tanmoyee Banerjee**

Organized the Workshop on “Cooperative Game Theory and Matching with Applications to Public Policy” with Swapnendu Banerjee funded by CAS, Department of Economics, Jadavpur University at Jadavpur University on 7<sup>th</sup> September 2016.

Coordinated as Convener with Vivekananda Mukherjee (co-convener) and Ajitava Raychaudhuri (Chairman of the local committee) “6<sup>th</sup> West Bengal Growth Conference”, organized by the Department of Economics, Jadavpur University, and funded by UPE II Jadavpur University, ISI Calcutta, IGC, New Delhi at the Department of Economics, at Jadavpur University during 28<sup>th</sup> -29<sup>th</sup> December, 2016.

### **Prof. Vivekananda Mukherjee**

Organized the Workshop on “Spatial Econometrics” with Malabika Roy funded by CAS, Department of Economics, Jadavpur University at Jadavpur University during 27-28 March, 2017.

Coordinated as Convener with Tanmoyee Banerjee (co-convener) and Ajitava Raychaudhuri (Chairman of the local committee) “6<sup>th</sup> West Bengal Growth Conference”, organized by the Department of Economics, Jadavpur University, and funded by UPE II Jadavpur University, ISI Calcutta, IGC, New Delhi at the Department of Economics, at Jadavpur University during 28<sup>th</sup> -29<sup>th</sup> December, 2016.

Organized the Workshop on “Measurement of Informal Economy and Evasion” funded by CAS, Department of Economics, Jadavpur University at Jadavpur University during 25<sup>th</sup> -27<sup>th</sup> March, 2017.

### **Dr. Bidisha Chakraborty**

Organized the Workshop on “Empirical Research Using Micro-level Data of NSSO (National Sample Survey Organisation) / ASI (Annual Survey of Industries)” with Poulomi Roy funded by CAS, Department of Economics, Jadavpur University at Jadavpur University on 30<sup>th</sup> January, 2017.

### **Dr. Poulomi Roy**

Organized the Workshop on “Empirical Research Using Micro-level Data of NSSO (National Sample Survey Organisation) / ASI (Annual Survey of Industries)” with Bidisha Chakraborty funded by CAS, Department of Economics, Jadavpur University at Jadavpur University on 30<sup>th</sup> January, 2017.

### **Dr. Sanmitra Ghosh**

Coordinated jointly with Amit Kundu the “26<sup>th</sup> Annual Conference on Contemporary Issues in Development Economics, 2016” organized by Jadavpur University, ICSSR, West Bengal Government at the Department of Economics, Jadavpur University during 22<sup>nd</sup>-23<sup>rd</sup> December, 2016.

#### **4. A. Books/Monographs etc. Published :**

(Name of the Teacher, Name of the Book, Name of the Publisher)

### **Prof. Ajitava Raychaudhuri**

#### **(Book Chapter)**

“Trade, Infrastructure and Income Inequality in Selected Asian Countries: An Empirical Analysis” in: Sinha Roy, S., and M. Roy, (eds.) *International Trade and International Finance*, Springer India, 2016.

**Prof. Ambar Nath Ghosh**

Co-authored the book titled “*Indian Economy, A Macro-Theoretic Analysis*”. Prentice Hall of India, 2016

**Prof. Amit Kundu**

**(Book Chapter)**

“Traditional Institutions and Female Beneficiaries of MGNREGP in West Bengal” in: Chiranjib Neogi, Amit. K. Bhandari and S. Ghosh (eds.) *Women’s Entrepreneurship and Micro Finance*. Springer India.

“Primary Education: Issues Relating to Gender Parity in Predominantly Rural Populated Districts of West Bengal, India” in: Rajarshi Majumder, Atanu Sengupta and Jaya Prakash Pradhan(eds.) *Growth and Development in India: Regional Dimensions*. Segment Publication, 2017.

**Prof. Arpita Ghose**

Authored a book titled *Efficiency of Elementary Education in India: Empirical Evidence using a Nonparametric Approach*, Springer, 2017.

**(Book Chapter)**

“Education and Economic Growth” in: T. Banerjee, S.K.Ray and M.Ghosh (eds.) *New Horizons In Development: Education, Skill Development and Economic Growth in India*. Mahadev Books (P) Ltd., New Delhi, 2016.

**Prof. Basabi Bhattacharya**

**(Book Chapter)**

“Foreign Direct Investment and Macroeconomic Indicators in India: An Analysis” in Sinha Roy, S., and M. Roy, (eds.) *International Trade and International Finance*, Springer India, 2016.

“Testing Non-linearity in Emerging and Developed Markets” in Sinha Roy, S., and M. Roy, (eds.) *International Trade and International Finance*, Springer India, 2016.

**Prof. Bhaswar Moitra**

**(Book Chapter)**

“Inclusive Growth and Rural Development Policies in Developing Countries” in Suranjana Mitra (ed.) *Public Policies for Inclusive Development*, Levant Books and NABARD.

**Prof. Biswajit Chatterjee**

Authored a book titled *Economics of Child Labour*, Submitted to Springer, 2017.

**(Book Chapter)**

“Impact of Trade Restrictions and the Role of Parents’ Utility Function: A Two Sector General Equilibrium Analysis” in Sinha Roy, S., and M. Roy, (eds.) *International Trade and International Finance*, Springer India, 2016.

“Education and Access to Rural Non Farm Employment in West Bengal” in K.P.Kannan, R.P.Mamgain and Preet Rustagi (eds.) *Labour and Development-Essays in Honour of T.S.Papopla*. Academic Foundation, November, 2016.

**Prof. Gautam Gupta**

Authored a book titled “An Introduction to Experimental Economics”, Orient Blackswan, Hyderabad.

**Prof. Joyashree Roy**

Co-authored the book titled “Socio-Economic Analysis of Arsenic Contamination of Groundwater in West Bengal”. Springer Singapore, 2016, DOI 10.1007/978-981-10-0682-1, Print ISBN 978-981-10-0680-7, Online ISBN 978-981-10-0682-1, Series ISSN 2198-0012.

**(Book Chapter)**

“Deep Decarbonisation in Industries: What does it mean for India?” *Conference Proceedings. Wuppertal Institute’s Brochure on the LCS-RNet Conference*, 2016. Wuppertal Institute for Climate, Environment and Energy, Wuppertal, Germany. Wuppertal Institute for Climate, Environment and Energy, 2017.

“The Global South: New Estimates and Insights from Urban India.” in Tilman Santarius, Hans Jakob Walnum and Carlo Aall (eds.) *Rethinking Climate and Energy Policies: New Perspectives on the Rebound Phenomenon*. ISBN 978-3-319-38805-2, ISBN 978-3-319-38807-6 (eBook), DOI 10.1007/978-3-319-38807-6. Springer International Publishing, Switzerland, 2016.

“Urban Mobility Experiments in India and Thailand, (<https://www.routledge.com/The-Experimental-City/Evans-Karvonen-Raven/p/book/9781138856202>)” in James Evans, Andrew Karvonen and Rob Raven (eds.) *The Experimental City*. Routledge, 2016.

“Exacerbating Health Risks in India due to Climate Change: Rethinking Approach to Health Service Provision, pp. 1-25, DOI: 10.4018/978-1-4666-8814-8.ch001” in Soumyananda Dinda (ed.) *Handbook of Research on Climate Change Impact on Health and Environmental Sustainability*, IGI Global, 2016.

**Prof. Malabika Roy**

Co-edited the book with Saikat Sinha Roy titled *International Trade and International Finance Explorations of Contemporary issues*, Springer, 2016.

**(Book Chapter)**

“An Empirical Investigation of Volatility Clustering, Volatility Spillover and Persistence from USA to two Emerging Economies India and China” in Sinha Roy, S., and M. Roy, (eds.) *International Trade and International Finance*, Springer India, 2016.

**Prof. Prabirjit Sarkar**

**(Book Chapter)**

“Foreign Direct Investment, Capital Formation, and Growth” in Sinha Roy, S., and M. Roy, (eds.) *International Trade and International Finance*, Springer India, 2016.

**Prof. Rajat Acharyya**

**(Book Chapter)**

“International Trade and Size of the Government” in: Sinha Roy, S., and M. Roy, (eds.) *International Trade and International Finance*, Springer India, 2016.

“International Trade and Widening Wage Gap: A General Equilibrium Approach” in Sumona Bandyopadhyay, Andre Torre, Paulo Casaca and Tomaz Ponce Dentinho (eds.)

### **Annual Report 2016-17**

*Regional Cooperation in South Asia: Socio-economic, Spatial, Ecological and Institutional Aspects.* Springer Verlag, Heidelberg, Forthcoming, 2017.

#### **Prof. Saikat Sinha Roy**

Co-edited the book with Malabika Roy titled “*International Trade and International Finance Explorations of Contemporary issues*”, Springer, 2016

##### **(Book Chapter)**

“FDI, Technological Choices and Spillovers in Indian Manufacturing Industries” (jointly with Maitri Ghosh) in Filip De Beule and K. Narayana (eds.) *Globalisation of Indian Industries: Productivity, Exports and Investment*, (Chapter 8: pp. 171-195). Editors: Springer Science+Business Media Singapore Pvt. Ltd., 2016.

“Is WTO Governed Trade Regime Sufficient for Export Growth?” (jointly with Pradyut Kumar Pyne) in: Sinha Roy, S., and M. Roy, (eds.) *International Trade and International Finance*, Springer India, 2016.

“Trade, Infrastructure and Inequality: A Cross Country Analysis” (jointly with Rudra Prosad Roy) in RIS-UN (eds.) *India and Sustainable Development Goals: The Way Forward* (Chapter 10, pp. 123-141). Research and Information System for Developing Countries (RIS), New Delhi, 2016.

“Does Inequality dampen Economic Growth? A Cross-country Analysis” (jointly with Rudra Prosad Roy) in C. Roy (ed.) *International Trade and Inclusive Development*. New Academic Publisher, New Delhi, 2017.

“Does Trade Openness increase Wage Elasticity of Labour Demand in Indian Manufacturing?” (jointly with Simontini Das and Ajitava Raychaudhuri) in Somesh Mathur, Rahul Arora and Sarbjit Singh (eds.) *Theorizing International Trade: An Indian Perspective*. Palgrave Macmillan (forthcoming, 2017).

“Structural Change, Trade and Inequality: Some cross-country evidence” (jointly with Rudra Prosad Roy) in Asian Development Bank Institute (ADBI) Working Paper, Tokyo. 2017(accepted, forthcoming).

“Can India lead to revival in Global Energy and Commodity Demand? Some Empirics” (jointly with Rudra Prosad Roy) in Nitya Nanda and Swati Ganeshan (eds.) *India’s Resource Security: Trade, Geo-politics and Efficiency Dimenions*. TERI Press, New Delhi, 2017(accepted, forthcoming).

#### **Prof. Sushil Halder**

Co-edited the book titled *Deprivation of Internally Displaced Persons: Case Studies in India*, Power Publishers, 2016.

#### **Prof. Tanmoyee Banerjee**

##### **(Book Chapter)**

“IPR Regulatory Policy, Commercial Piracy, and Entry Modes of MNC: A Theoretical Analysis” in: Sinha Roy, S., and M. Roy, (eds.) *International Trade and International Finance*, Springer India, 2016.

#### **Prof. Vivekananda Mukherjee**

##### **(Book Chapter)**

“Fiscal Decentralization and Decentralized Financing” in P. K. Das (ed.) *Decentralization, Governance and Development: An Indian Perspective*. Orient Blackswan, forthcoming.



### **Annual Report 2016-17**

“Environment and Economic Development” in C. Roy (ed.) *International Trade and Inclusive Development*. New Academic Publisher, New Delhi, 2017.

#### **Dr. Asim K. Karmakar**

Co-authored the book titled “*Microeconomics & Indian Economic Environment*”. Dey Book Concern, 2016.

#### **(Book Chapter)**

“Mortgaging the future? Contagious Financial Crises in the Recent Past and their Implications for BRICS Economies”, in Umit HACIOGLU & Hasan DINCER (eds.) 2017. *Global Financial Crisis and its Ramifications on Capital Markets : Opportunities and Threats in Volatile Economic Conditions (Book 1)* Springer International publishing. 175-190 (Chapter 14). ISBN: 3319470205, 9783319470207.

“In Looking into Foreign Exchange Risk Management”, Hasan DINCER & Umit HACIOGLU (eds.) 2017. *Risk Management, Strategic Thinking and Leadership in the Financial Services Industry: A Proactive Approach to Strategic Thinking*. Springer International publishing. 42-58 (Chapter 4). ISBN : 978-3-319-47171-6.

“Infrastructure, Education, and Economic Development in India: A State Level Analysis”, in Dr. Ramesh Chandra Das (ed.) 2015. *Social, Health, and Environmental Infrastructures for Economic Growth* released by IGI Global USA (Pensylvania), on March 2017. 1-13 Chapter 1 ISBN13: 9781522523642 | ISBN10: 1522523642. |

“Food Security in Asia—Is there any Convergence”, in Dr. Ramesh Chandra Das (ed.) 2016. *Handbook of Research on Global Indicators of Economic and Political Convergence, and Growth—Implications of Confidence and Governance (Advances in Finance, Accounting and Economics)*. released by IGI Global. 382-397 (Chapter 17). ISBN:9781522502159.

“Governance of Rural Electricity Systems in India”, in D.H.Dhaba and K. A. Rasure (eds.) *Development Infrastructure in the Era of Economic Reforms*. Mangalam Publications, New Delhi, 2017.

“Addressing India’s Education and Skill Challenges For Faster and More Inclusive Growth”, in Tapasree Banerjee, Subrata Kumar Ray and Manojit Ghosh (eds.) *New Horizon in Development: Education Skill Development and Economic Growth in India*. Madhav Books (P) Ltd, New Delhi, 2016.

“Contemporary Relevance of Karl Marx”, in Anureema Bhattacharya, Subrata Kumar Ray, Sutapa Ray (eds.) *Marxian Theory: Assessment and Relevance in the Post Reform Era*. Madhav Books Pvt. Ltd, New Delhi. |

“India-Bangladesh Bilateral Trade in the Era of Globalization”, in Prof. E. Bijoykumar Singh (ed.) *Contextualizing Indo-Myanmar Border Trade at Moreh: Collected Papers in Honour of Prof. L Tombi Singh*. Sunmarg Publishers and Distributors, New Delhi, 2016.

“India’s Agricultural Growth since Liberalization”, in John Felix Raj, Samrat Roy and Koushik Kumar Hati (eds.) *Indian Economy-A Visionary Perspective collected papers in Honour of St. Xavier’s College (autonomous), Kolkata*. Regal Publications, New Delhi, 2016.

“International Monetary System: and the Global Financial”, in Debesh Bhowmick (ed.) *International Monetary System: Past, Present and Future*. | Regal Publications, New Delhi, 2016.

**4. B. Articles Published in Journals:**(Including National/International & Peer-reviewed Journals)

(Name of the Teacher, Name of the Articles, Name of the Journal, Date of Publication, Volume)

**Prof. Ajitava Raychaudhuri**

“Structure Conduct and Performance of Indian Commercial Banks” (Co-authored with Malabika Roy) in *South Asian Journal of Macroeconomics and Public Finance (Sage)*, 5(2), December 2016, pp. 157-185.

“Trend of Technical Efficiency and Cost Efficiency of Rice Production for Major Rice Producing States of India” (Co-authored) in *Artha-Vijnana*, Vol. LVII, No.4, December 2015, pp.255-275 (published in June, 2016).

**Prof. Ambar Nath Ghosh**

“Effect of a ban on exports containing child labour in a dynamic model in presence of imperfect monitoring” (Co-authored with Sahin, S.) in *Foreign Trade Review*, Volume 5, Number 1, February, 2016.

“Interaction between the Real Sector and the Financial Sector: An Alternative to the IS-LM Model” (Co-authored with Jha, S and Ghosh, C.) in *Contemporary Issues and Ideas in Social Sciences*, Vol.6, pp. 1 – 14, 2016ISSN: 1817-4604

“India’s Balance of Payments, Growth and Fiscal Policy”, (Co-authored with Lahiri, H. and Ghosh, C.) in *South Asian Journal of Macroeconomics and Public Finance*, 5(1) 1-35.2016.

**Prof. Amit Kundu**

“Asset Creation Through NREGP in Private Land and its’ Impact on Net Farm Income of the Marginal Farmers” in *Agricultural Situation in India (Journal of the Ministry of Agriculture, Govt. of India)*, Vol. LXXIII, July 2016, No.4, pp.24-30.

“Employment Generation among Women in NREGS: A Synthesis on the basis of Micro Level Field Investigation” (Co-authored) in *Journal of Economics and Political Economy*, Forthcoming.

“Asset Creation through National Rural Employment Guarantee Scheme (NREGS) and its’ Impact on West Bengal Agriculture” in *Journal of Global Economy*, Vol.13, No.-3, Sept-2016, pp. 151-166.

**Prof. Arpita Ghose**

“A Dynamic Economic Model of Soil Conservation and Drought Tolerance involving Genetically Modified Crops” (Co-authored) in *Journal of Social and Economic Development*, Issue 1, Vol. 18, 2016, pp. 40-66.

“Trade and Distributional Impacts of Genetically Modified Crops in India: A CGE Analysis” (Co-authored) in *Margin -The Journal of Applied Economic Research*, Issue 3, Volume 10, 2016, 381-407.

“Consumer’s Acceptance towards Genetically Modified Crops and Growth of the Economy: A Theoretical Approach” (Co-authored) in *Global Journal of Human Social Sciences*, Vol. 17, Issue 1, Forthcoming.

**Prof. Basabi Bhattacharya**

“Comparative Analysis of Asset Pricing models based on Log-Normal Distribution and Tsallis Distribution using Recurrence Plot in an Emerging Market” (Co-authored) in *Research in Finance*, Volume 32, 35-73, 2016.



**Prof. Biswajit Chatterjee**

“Analytics of the Inclusive Growth Paradigm in India” (Co-authored) in *Indian Journal of Economics*, Vol. XCVI, No. 283, 2016: 113-126, December 2016.

“Impact of Trade vs. Non-trade Policies on the Incidence of Child Labour: A Two-sector General Equilibrium Framework” (Co-authored) in *Foreign Trade Review*, November 2016, 51 (4).

“Analyzing ‘Jobless Growth’ in Post-liberalisation India: A Decomposition Approach” (Co-authored) in *Indian Journal of Labour Economics, Springer*, Vol 58, no. 4, December 2015, published in December 2016.

“Growth in India’s Service Sector: Implications of Structural Breaks” in *Journal of Quantitative Economics, Springer*, Vol. 15, No 1, January, 2017.

**Prof. Joyashree Roy**

“Analysing Energy Intensity Trends and Decoupling of Growth from Energy Use in Indian Manufacturing Industries during 1973-74 to 2011-12” in *Energy Efficiency*, DOI 10.1007/s12053-016-9497-9, pp.1-19, 2016.

“Can Low-carbon Urban Development be Pro-poor? The Case of Kolkata, India” in *Environment and Urbanization*, DOI: 10.1177/0956247816677775., pp 1–20, 2016.

“Coastal Ecosystem and Changing Economic Activities and Vulnerabilities along Chinese and South Asian Coasts” in *APN Science Bulletin*, 2016, Issue 6, April, pp. 21-26.

“Low Carbon Green Growth Strategies and Sustainable Development for Mega Cities: A Case Study of Kolkata” in *Amity Journal of Economics*, No.1, Vol.1, pp. 73-86, 2016.

**Prof. Malabika Roy**

“An Analysis of Financial Inclusion” (Co-authored with Tanmoyee Banerjee) in *Journal of Rural Development*, Volume 35, Issue 4, October-December 2016.

“Credit Labour Interlinkage Revisited” (Co-authored with Tanmoyee Banerjee) in *Indian Economic Review*, Vol. L, Number 1 pp. 131-167 Issue of January -June 2015, which was published around October -November, 2016.

“Structure Conduct and Performance of Indian Commercial Banks” (Co-authored with Ajitava Ray Choudhuri) in *South Asian Journal of Macroeconomics and Public Finance (Sage)*, 5(2), December 2016, pp. 157-185.

**Prof. Prabirjit Sarkar**

“Varieties of Creditor Protection: Insolvency Law Reform and Credit Expansion in Developed Market Economies” in *Socio-Economic Review*, 2016.

**Prof. Rajat Acharyya**

“Does Tariff Induce Intellectual Property Right Protection and Reduce Incidence of Piracy?” (Co-authored) in *Review of International Economics*, Online version: October, 2016.

“Tariff Reductions, Terms of Trade and Product Variety” (Co-authored) in *Journal of Economic Development*, Vol. 41, No. 3, pp. 75-103, 2016.

“Innovation Incentives for an Integrated Market with Vertical Product Differentiation” (Co-authored) in *Indian Growth and Development Review*, Vol. 9, No. 1, pp. 79-99, 2016.

**Prof. Saikat Sinha Roy**

“Financial Contagion and Volatility Spillover: An exploration with Indian Commodity Derivative Market” (Co-authored with Rudra Prosad Roy) in *Economic Modelling*, 2017 (accepted, forthcoming).

“FDI, Firm Heterogeneity and Exports: An Analysis of Indian Manufacturing” (Co-authored with Maitri Ghosh) in *Asian Development Review*, 2017 (accepted, forthcoming).

“Introduction to the Special Issue on ‘Balance of Payments: Fiscal and Monetary Issues’” (Guest Editor) in *South Asian Journal of Macroeconomics and Public Finance*, No. 1, Vol. 5, pp.2-6, 2016.

**Prof. Siddhartha Mitra**

“Dynamics of Foodgrain Deficiency in India” (Co-authored) in *Margin-The Journal of Applied Economic Research*, Vol. 10(4), pp. 465-498, 2016.

“A Note on Subjective Measures of Inclusive Growth” in *South Asian Journal of Macroeconomics and Public Finance*, Forthcoming (December Issue).

**Prof. Sushil Halder**

“Conflict, Displacement, and Inequality of Opportunity” in *Asian Journal of Peace building*, 4(2), 137-160, 2016.

**Prof. Swapnendu Bandyopadhyay**

“Other Regarding Principal and Moral Hazard: The Single Agent Case” in *International Journal of Economic Theory (Blackwell)*, Forthcoming.

“Optimal Organization of Surrogacy Contracts and Underinvestment” in *Journal of Quantitative Economics (Springer)*, December 2016, Volume 14, Issue: 2, pp. 217-236.

“Stochastic Appraisal: and an Application to Random Favouritism” in *Indian Economic Review*, Forthcoming.

**Prof. Tanmoyee Banerjee**

“An Analysis of Financial Inclusion” (Co-authored with Malabika Roy) in *Journal of Rural Development*, Volume 35, Issue 4, October-December 2016.

“Credit Labour Interlinkage Revisited” (Co-authored with Malabika Roy) in *Indian Economic Review*, Vol. L, Number 1 pp. 131-167 Issue of January -June 2015, which was published around October -November, 2016.

**Prof. Vivekananda Mukherjee**

“Bank-specific Determinants of Nonperforming Assets of Indian Banks” in *International Economics and Economic Policy*, Vol. 13 (3), pp. 483-498, 2016.

“Estimating Elasticity of Import Demand for Gold in India” in *Resources Policy*, Vol. 51, pp.183 - 193, 2017.

“On Determination and Efficiency of Stamp Duty Revenue Collection: Evidence from West Bengal” in *Economic and Political Weekly*, Forthcoming.

“On Autonomous Devolution from the Union Government, Provision of Local Public Goods and Welfare of the States” in *Indian Economic Review*, Forthcoming.

**Dr. Asim K. Karmakar**

“The Social Impact of the Financial Crises in the Recent Past and Evidence there off — with Special Reference to India” (Co-authored) in *International Journal of Sustainable Economies Management (IJSEM)* published by IGI Global, ISSN: 2160-9659|EISSN: 2160-9667, Forthcoming.

“Dr. B.R. Ambedkar and Dalits in India: A Contemporary Exploration” in *The Indian Economic Journal*, (Centenary Year Special Issue Volume 1), pp. 237-260 ISSN No.0019-4662.

“When The Troubles Ripple Across: China and India’s Recent Experience with Contagious Financial Crises” in *Vidyasagar University Journal of Economics*, Vol. XIX, 2013-14, pp. 48-76, 2017.

“Two and a Half Decades of India’s Balance of Payments: Issues and Challenges in the Context of Global Changes And Instability” (Co-authored) in *The Indian Economic Journal*, Special Issue, December 2016 pp. 205-226.

“India’s Economic Diplomacy: Reaping the Benefits from the New Foreign Trade Policy, 2015-20” in *World Focus*, 2016, U.S. Library of Congress No.:80910345, in the Issue: India’s Economic Diplomacy: Leapfrogging Foreign Trade, pp.67-76.

“Anatomy and Consequences of India’s Demographic Dividend” in *Bihar Economic Journal*, Vol.5, Number 1 ISSN 2230-8970 pp. 58-68 November, 2016.

**Dr. Vikash Dixit**

“Causality between Economic Openness, Income Inequality and Welfare Spending in India” in *Asia Pacific Social Science Review*, Forthcoming (June Edition).

**Ms. Soma Mandal**

“-Existence and Determinants of Female Child Disadvantage: Evidence Based on Anthropometric Measures from Household Survey Data” in *Vidyasagar University Journal of Economics*, Vol-19, 2013-14, pp. 1-13, published in 2017.

**5. Collaborative Programmes:**

**Prof. Joyashree Roy**

NATCOM-III, MOEF, Govt. of India: “Assessment of economic cost of impact of heat stress on labour productivity and adaptation in selected building and transport sector”.  
UC Berekley for DIL project.

**6. Major Achievements:**

**Prof. Arpita Ghosh**

Nominated as Member of the Executive Council of The Indian Econometric Society (TIES) for 2017-18.

**Prof. Biswajit Chatterjee**

Elected as President, Bengal Economic Association on February, 2017.

**Prof. Joyashree Roy**

(1) TEDxGhent talk, Belgium.

(2) Selection as expert for IPCC 1.5 Special Report Chapter Coordinating Lead Author, 2017- 2019.

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### **Prof. Rajat Acharyya**

Received Sikhsa Ratna (Best University Teacher) Award, Government of West Bengal, 2016.

### **Prof. Saikat Sinha Roy**

Nominated as Member, Steering Committee, Promotion of Exports for West Bengal, Directorate of Industries, Department of Commerce and Industry, Government of West Bengal.

Nominated Member, Technical Advisory Committee, Social Science Division, Indian Statistical Institute.

### **Prof. Swapnendu Banerjee**

Visiting Subir Chowdhury Fellowship, London School of Economics, 2016.

### **Dr. Asim K. Karmakar**

Elected EC Member of Indian Economic Association 2017-2020.

Received **Dr. Radhakrishnan Gold Medal Award** for outstanding Individual Achievement in Education by Global Economic Progress & Research Association, New Delhi in 2016.

## **Section III**

### **Annexures (Administrative)**

#### **1. Research Scholars Awarded :**

Ph.D :Completed with title from the Department of Economics

### **Prof. Joyashree Roy**

- Rebound Effect: Empirical Evidence from the Indian Economy by Debalina Chakraborty
- Lifestyle and Climate Change: An Empirical Study with Special Reference to India by Shamik Pal

### **Prof. Saikat Sinha Roy**

“Globalisation and India’s Horticulture Trade: Issues in International Competitiveness, Competition and Market Access Requirements” by Ushree Sengupta in September 2016.

### **Prof. Siddhartha Mitra and Dr. Bidisha Chakraborty**

“SOCIO-ECONOMIC DETERMINANTS OF MENTAL HEALTH OUTCOMES” by Piyali Dasgupta (joint supervision). She was awarded Phd degree in convocation of December, 2016.

## Annual Report 2016-17

### EDUCATION

Int. : 2457-2882  
H.O.D. : Prof. Bishnupada Nanda  
E-mail : education.ju@gmail.com  
hod.education@jadavpuruniversity.in

#### 1. Courses Offered:

Name	Duration	Intake
B.Ed.	2 years (4 semesters)	100 + 100 = 200
M.A. in Education	2 years (4 semesters)	50 + 52 = 102
M.Phil in Education	2 years (4 semesters)	15 + 17 = 32
Ph.D. (by coursework)	-	15

#### 2. Research Areas:

- Mindfulness in Education
- Special and Inclusive Education
- Rehabilitation Psychology and Psychological Counselling
- Cognitive Psychology
- Behaviour Therapy
- Social Education
- Science and Mathematics Education

#### 3. International Seminars Organised by the Department:

- 2 days International Seminar in collaboration with Naihati Women's College on "**Cyber Crime: Its Social and Economic Impact**", on 26<sup>th</sup> and 27<sup>th</sup> December, 2016, at Naihati, North 24 Parganas.
- 7 days International Seminar cum Workshop in collaboration with Arogya Sandhan Charitable Trust, on "**Parental Involvement in the Education of Children with Special Needs**", from 17<sup>th</sup> to 23<sup>rd</sup> January, 2017, at Jadavpur University campus.
- 2-days International Seminar, jointly with Byanjanbarna Foundation, Kolkata, on "**Higher Education through Mother-Tongue**", on 7<sup>th</sup> & 8<sup>th</sup> March, 2017, at Jadavpur University campus.

#### 3. National Seminar Organised by the Department:

- 2 days National Seminar, in collaboration with Indian Institute of Mother & Child Welfare, on "**Social Inclusion: Present Day Context**", 26<sup>th</sup> and 27<sup>th</sup> December, 2016, at Nazrul Bhavan, Jadavpur University

#### 4. Workshops Organised by the Department:

- 7 days International Workshop, jointly with Byanjanbarna Foundation, Kolkata, in collaboration with Mahadevananda Mahavidyalaya, Barrackpore, on "**Shampratik Rabindra Samiksha**", on 26<sup>th</sup> August to 1<sup>st</sup> September, 2016.
- 7 days International Workshop, jointly with Byanjanbarna Foundation, Kolkata, in on "**Methodology of Teaching Bengali Literature at College & University Levels**", from 20<sup>th</sup> to 26<sup>th</sup> January, 2017.

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**5. Short Term Courses Organised by the Department:**

- UGC-HRDC Short Term Course on **Teacher Educators**  
Date: 3<sup>rd</sup> to 9<sup>th</sup> November, 2016  
Coordinator: Dr. Bishnupada Nanda
- UGC-HRDC Short Term Course on **Basic Skills of Counselling**  
Date: 10<sup>th</sup> to 16<sup>th</sup> January, 2017  
Coordinator: Dr. Mukti Pada Sinha

**6. Publications:**

- Publication of Book  
Title: **Bidbidha Prasanga: Bishay – Ajana Manush Vivekananda**  
ISBN: 978-93-83660-31-5  
Date of Publication: 12<sup>th</sup> January, 2017

**7. Publication of Journal:**

- RENOVA, Volume -3, ISSN: 2454-1710

**8. Special Lectures:**

- Special Lecture organised on 11<sup>th</sup> November, 2016, observing National Education Day on the topic of Maulana Abul Kalam Azad. Special Lecture delivered by Sri Swapan Mukhopadhyay.
- Discussion session organised on 12<sup>th</sup> January, 2017, commemorating National Youth Day.

**Prof. Bishnupada Nanda**

**Journals**

- Attitude towards AIDS of College going students in respect to Certain Demographic Features – Bishnupada Nanda (with Amit K. Maity). Indian Journal of Educational Research (ISSN 2277-3819), V, 1-11, 2016
- Knowledge of Childcare among neo-literate and illiterate Adult Women Learners of Burdwan District, West Bengal – Bishnupada Nanda (with Ananya Mondal). Indian Journal of Educational Research (ISSN 2277-3819), V, 146-155, 2016
- Just for them to Understand Better: Empowering the learning Disabled – Dr. Bishnupada Nanda. The Scholar (ISSN 2454-521X), I(1), 29-31, 2016
- Depression Predicts Smoking among Adolescent Girls – Dr. Bishnupada Nanda (with Arpita Nathak). The Scholar, (ISSN 2454-521X), I(1), 40-48, 2016
- Knowledge and Attitude of Trainee Teachers and In-Service teachers towards Students who are Gay, Lesbian, Bisexual and Transgendered – Dr. Bishnupada Nanda (with Prosenjit Roy). The Scholar (ISSN 2454-521X), I(1), 172-122, 2016
- Revisiting Higher Education Research – Dr. Bishnupada Nanda. Anwesa: A Journal of Education (ISSN 0973-5895), II, 67-70, 2016
- Parents Attitude towards Inclusion of Children with Special Needs: A Survey – Dr. Bishnupada Nanda (with Ripa Mazumder). Anwesa: A Journal of Education (ISSN 0973-5895), II, 83-91, 2016



### **Annual Report 2016-17**

- Teachers' Knowledge of Inclusive Education in Mainstream Secondary Schools – Dr. Bishnupada Nanda (with Ananya Mondal). *Evolving Horizons* (ISSN 2319-6521), 5, 82-86, 2016
- Parental Involvement in the Education of Children with Special Needs – Dr. Bishnupada Nanda (with Sunita Mondal), *RENOVA* (ISSN 2454-1710), 3(1), 2017
- A Study on the Behavioural Problems of Children with Intellectual Impairment – Dr. Bishnupada Nanda (with Aishanya Tripathi), *RENOVA* (ISSN 2454-1710), 3(1), 2017

#### **Edited Volumes**

- *Bibidha Prasanga: Bishay – Ajana Manush Vivekananda* (ISBN: 978-93-83660-31-5), January, 2017. Published by: Registrar, Jadavpur University from the Department of Education, Jadavpur University
- *RENOVA* (ISSN 2454-1710), March, 2017, Volume – 3(1). Published by: Registrar, Jadavpur University, from the Department of Education, Jadavpur University

#### **Chapters Contributed:**

- Purnatar Sandhane Tribeni Sangame, in *Bibidha Prasanga: Bishay – Ajana Manush Vivekananda* (ISBN: 978-93-83660-31-5), January, 2017. Published by: Registrar, Jadavpur University from the Department of Education, Jadavpur University
- Higher Education Scenario of Scheduled Casts and Scheduled Tribes in India. Jointly with Sunita Mondal, in *Higher Education* (ISBN 978-93-85876-97-4), APH Publishing Corporation, New Delhi
- *Research Trends in Open and Distance Education – A Review in Distance Education in India* (ISBN 978-93-85503-73-3) New Delhi Publishers, New Delhi

#### **Special Lectures / Seminar Lectures / Workshops**

- July 16, 2016. Delivered a lecture on 'Sociology of Education' for P.G. Students, Seuri College, Seuri, Birbhum
- August 26, 2016: Delivered key-note speech on 'Sampratik Rabindracharcha' at Barrackpore Mahadevananda College in the International Workshop held jointly by Mahadevananda College and the Department of Education, Jadavpur University
- September 02, 2016: Delivered a speech on 'Women's Education and Empowerment' at Bidhar Ambedkar College.
- September 08, 2016: Delivered a speech in Orientation Programme, UGC Academic Staff College, Burdwan University, on 'Methodology of Teaching & Joyful Learning'
- September 14, 2016: Delivered a speech on 'Inclusive Education' in a State Level Seminar on Inclusive Education, at Bamapukuria Humayum Kabir College, 24 Parganas
- October 24, 2016: Delivered a speech on 'Experiential Learning in Pre-School' in CRE Programme, at MRIH, Kolkata
- November 07, 2016: Delivered a speech on 'Assessment and Evaluation in Higher Education: Emerging Trends' in UGC sponsored National Seminar at Fakir Chand College, Diamond Harbour, jointly with Department of Education, Jadavpur University
- November 12, 2016: Delivered a speech on 'Inclusive Education' in National Seminar at Vidyasagar Teachers' Training College, Midnapur



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- November 13, 2016: Delivered a speech on 'Revisiting Inclusion in Education' at NSOU, Kolkata
- November 16, 2016: Delivered a speech on "Inclusive Education' at RBU, Kolkata
- December 09, 2016: Delivered a speech on 'Parental Involvement' in a Parents Meet, organised by Sarva Siksha Mission at North 34 Pgs
- December 10, 2017: Played role in 'Evaluation' at Orientation Programme at UGC-Academic Staff College, Jadavpur University, Salt Lake Campus
- December 16-17, 2016: Delivered two speeches on 'Inclusive Education' at Sevayatan College, Jhargram, for the College and University Education Professors, organised by NSOU, Kolkata
- December 23, 2016: Attended a meeting of Curriculum Committee at Nivedita Bhaban (WBSE)
- December 27, 2016: Delivered a speech in the International Seminar on 'Cyber Crime' at Naihati organised by Naihati Women in Need
- January 06, 2017: 'Inclusive Education' at Blind Boys' Academy, Narendrapur Ramkrishna Mission for the College and University Education Professor organised by NSOU, Kolkata
- January 12, 2017: Published the edited volume on 'Ajana Manush Vivekananda (ISBN: 978-93-83660-31-5) and delivered speech in the discussion session organised for commemorating Swami Vivekananda's birth anniversary
- January 16, 2017: Delivered a speech in National Seminar as a Resource Speaker at NSOU, Salt Lake Campus, on the topic 'Research Trends in Special and Inclusive Education'
- January 17-23, 2017: Organised seven day International Workshop – cum – Seminar on 'Parental Involvement in the Education of Children with Special Needs' organised jointly by the Department of Education, Jadavpur University and Arogya Sandhan Charitable Trust
- January 26, 2017: Delivered a speech on 'Reading and Writing Problems of Learning Disabled Children in Bengali and its Remedial Measures' in the 7 days International Workshop on 'Teaching Language' organised jointly by the Department of Education, Jadavpur University and Byanjanbarna Foundation, Kolkata
- January 28-29, 2016: Lectured in the KRP Training of RMSA, Government of West Bengal, organised by SCERT, Kolkata
- January 30-31, 2017: Organised National Seminar on 'Social Inclusion in the Present Day Context, jointly with Department of Education, Jadavpur University and Indian Institute of Mother & Child Welfare, Kolkata
- February 8 – 10, 2017: Delivered speech in the KRP training of RMSA, Govt. of West Bengal, organised by SCERT, Kolkata
- February 17-18, 2017: Delivered two speeches on 'Inclusive Education Revisited' at Siliguri North Bengal Handicapped Society
- February 22, 2017: Inaugurated and lectured in the CRE (RCI, Govt. of West Bengal) programme organised by NIOH, Kolkata

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- March 1, 2017: Played role as an evaluator in the Orientation Programme at UGC-Academic Staff College, Salt Lake Campus, Jadavpur University
- March 7, 2017: Delivered a speech in the Seminar 'Higher Education through Mother Tongue: Problems & Prospects' organised jointly by the Department of Education, Jadavpur University and Byanjanbarna Foundation, Kolkata

**Antara Mitra : Asst. Professor (Cont.)**

1. Participated in the seven days International Level Workshop on SAMPRATIK RABINDRA SAMIKSHA from 26<sup>th</sup> August to 1<sup>st</sup> September, 2016 organised by Department of Education, Jadavpur University and Byanjanbarna Foundation, Kolkata in collaboration with Mahadevananda Mahavidyalaya, North 24pgs.
2. Participated in the UGC Sponsored two days, International Conference on "Higher Education, Univesitys and Excellence : The Bengal Narrative" organized by the Centre for Studies and Rehabilitation of Differently Abled Persons and WBCUPA, Jadavpur University, Kolkata on 20.12.2016 and 21. 12.2016.
3. Participated in UGC sponsored 7 days International Level Workshop on 'Methodology of Teaching Bengali Literature at College / University Level' from 20<sup>th</sup> to 26<sup>th</sup> January, 2047. Conducted by Department of Education, Jadavpur University, jointly with Byanjanbarna Foundation, Kolkata.
4. Presented paper entitled " Role of Mother Tongue Education in effective learning of any Foreign Language" in UGC sponsored two Days International Seminar on 'Higher Education through Mother Tongue : Problems & Prospects' on 7<sup>th</sup> & 8<sup>th</sup> March, 2017 conducted by Department of Education, Jadavpur University jointly with Byanjanbarna Foundation, Kolkata.

## Annual Report 2016-17

### ENGLISH

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#### 1. A. Courses Offered:

Name of the course	Duration of the Course	Current intake
• BA Honours	3 years, 6 semesters	67 current
• MA	2 years, 4 semesters	66 current
• M Phil	2 years	17 per year
• PhDs registered		112 approx.
• PhD by coursework (new UGC regulations)		52 current

1. **B. Number of Faculty Members:** Full strength 25. Presently 19 + 2 emeritus professors

#### 2. A. Areas of Research Activities:

The Department of English is a Centre of Advanced Study (CAS) under the UGC's SAP Programme, the only CAS in English in India. **It was recognized by the UGC for the status of Departmental Special Assistance (DSA) in 1991 and became a Centre of Advanced Study in 2004. The existence of the Centre was a major factor in the Department gaining another UGC award (ASIHSS, 2006-11) for strengthening infrastructure and research facilities. The Centre's programme of activities is mainly directed at research, but its influence is felt through the Department at all levels, in the University, the region and the country. It received funds from the UGC for equipment and infrastructure, library acquisitions, conferences, visiting faculty, and travel. It engages in international collaboration for the purposes of research. It is expected to provide leadership in developing new areas of Indian scholarship and in fostering academic exchange.** The CAS status was renewed in 2010, the second phase extending from 2010 to 2015. **The specified Thrust Area for CAS Programme Phase II (2010-15) was Cultural Transactions.**

On 1 June 2015, at the Interface meeting for renewal of the CAS Programme, the UGC recommended upgrading it to CAS Phase III for five years, with funding of Rs 1.28 crore plus emoluments for two project fellows. **The overall thrust area would remain Cultural Transactions, with the following special research interests:**

1. Translation
2. Shakespeare in Bengal
3. Incipient Modernities — India and the World
4. Archiving Local Knowledge Systems
5. World Literature to Indian Film

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CAS Phase III began from the 2016-17 financial year for the next five years.

The Centre of Advanced Study has also been recognized by the Research Councils UK (RCUK) in their report, Arts and Humanities Research Landscape in India, as a Centre of Excellence in Research in the Humanities. See: <http://www.rcuk.ac.uk/documents/india/Additionalcentres.pdf> under <http://www.rcuk.ac.uk/international/Offices/OfficeinIndia/landscape/Pages/Arts.aspx>

Brief account of CAS Phase I and CAS Phase II

The broad field identified for research under Phase I (2004-2009) was *Textuality and Culture* **with the following “thrust areas”**:

- Renaissance Studies
- Nineteenth Century Studies
- Twentieth Century Studies
- Translation Studies

The following areas had additionally been identified as important fields of study:

- Literature and the Other Arts
- History of the Book
- Theatre Studies
- Literature and Psychoanalysis
- Popular Culture
- Medieval English and European Literature

**The major objectives** set out under the broad field of **Textuality and Culture** were the study of the cultural history of texts and the social, physical and material conditions of literary production, as well as the tasks of documentation, resource collection and archive building in all the specified thrust areas, integrating them into a common programme. This would include extension into wider cultural fields and emerging areas such as: study of non-canonical texts, popular literature and paraliterature, translation studies and cultural history, history of book production, publishing and circulation, study of literature in relation to other arts, textual studies and editorial method, inter-departmental and inter-faculty links in film studies, electronic media, women’s studies, cultural history of texts and study of material culture, the social, physical and material conditions of literary production, documentation, resource collection and archive-building.

**In Phase II (2010-2015), the specific thrust area was identified as *Cultural Transactions***. It was understood that the Centre would continue to focus on its areas of strength, but bring them into the frame of the encounters and transactions between cultures that India’s history reflects, resulting from **travel, contact, colonization, migration, scientific and technological advances and exchanges**, leading to **new literary expressions**.

## **CAS PHASE III THRUST AREA**

### **TEXTUALITY AND CULTURE II: CULTURAL TRANSACTIONS**

**BROAD FIELD: Textuality and Culture.** This includes the study of the cultural history of texts and the social, physical and material conditions of literary production, as well as the tasks of documentation, resource collection and archive building in all the specified thrust areas, integrating them into a common programme. This would include extension into interdisciplinary and emerging areas such as popular literature and paraliterature, translation studies and cultural history, history of book production, publishing and circulation, study of literature in relation to other arts, textual studies, editorial method, digital humanities, cultural history of texts, and study of material culture and the circulation of commodities.

#### **THRUST AREA: Cultural Transactions.**

**The focus of the CAS III is the following areas:**

1. Translation
2. Shakespeare in Bengal
3. Incipient Modernities — India and the World
4. Archiving Local Knowledge Systems
5. World Literature to Indian Film

These would extend the earlier focus on **transactions between cultures**, resulting from **travel, contact, colonization, migration, scientific and technological advances and exchanges**, leading to **new literary expressions**.

The study of English literature in India may itself be regarded as one of the products of these **cultural transactions** that have taken place in our history. It is important for English departments in India to focus attention on the nature of these cultural transactions, and to understand the far-reaching changes brought about by them, not simply in the context of colonization, but over a very long period of cultural contact across the world, and through migration and travel. The cultural production of texts and their distribution and influence depends on a host of factors including technological and social changes brought about by contact with other cultures. Moreover, just as commodities and human beings travel, so do ideas.

#### **Objectives:**

1. To create a better understanding of intercultural exchanges in the intellectual and material realms, to explore interfaces between literature, arts and sciences, and to open new horizons for the discipline of English studies in India.
2. To extend the study of print culture and textuality pioneered by the Department, create digital and print resources for research, train personnel in archiving and materials collection, and develop web-based programmes.
3. To become a nodal centre for research in the Thrust Area: **CULTURAL TRANSACTIONS.**

#### **OTHER CENTRES IN THE DEPARTMENT:**

The Department hosts the **Jadavpur University Society for American Studies**. With support from the Italian Embassy Cultural Centre, New Delhi, and the UGC-

ASIHSS Programme, a **Renaissance Resource Centre** was established in the Department in 2009. Departmental faculty created in 2010 a **Centre for Victorian Studies** which has established formal links with the University of Leicester's Victorian Studies Centre. The Department also houses the **Rabindranath Studies Centre**, established under the UGC Epoch-Making Thinkers Scheme in 2011, and temporarily serves as the office for the **Tagore Cultural Complex** to be constructed with funding from the Ministry of Culture, Government of India, which released the first instalment of Rs 4.5 crores in 2014-15, matched by Rs 1 crore from the Government of West Bengal.

## **2. B. Major Research Projects: (Departmental)**

### **2. PROJECTS**

#### **A. SHAKESPEARE IN BENGAL (UGC CAS ENGLISH)**

The "Shakespeare in Bengal" project was started in 2011 under the CAS (Phase II) programme at the Department of English, Jadavpur University to document the various aspects of Shakespeare's presence in the geographical sector of greater Bengal and especially within the Bengali-speaking culture. At present, the members of the project are Prof. Nilanjana Gupta (CAS Phase III Co-ordinator), Prof. Paromita Chakravarti (Co-ordinator of the project), Dr. Abhishek Sarkar (Joint Co-ordinator of the project), Prof. Sonia Sahoo, Ms. Shalmi Barman (CAS Fellow) and Ms. Shrutakirti Dutta (CAS Fellow). The project seeks to archive and assess material that may be placed under three distinct but interrelated categories of Shakespearean reception in Bengal (understood in the broadest sense), namely, (1) Performance of Shakespeare; (2) Translations and Adaptations of Shakespeare; and, (3) Shakespeare Pedagogy. The project has launched and maintained an official website with a view to continuously posting updates about its progress and publishing its findings in the public domain. In the first year of CAS Phase III, the project has archived material in all the three recognized fields of its purview, a brief summary of which is provided as follows.

- (1) Performance of Shakespeare – Members of the project have witnessed and taken extensive notes on Shakespearean productions including *Sauda* (a contemporized Bengali adaptation of *The Merchant of Venice*), *Othhoi* (a contemporized Bengali adaptation of *Othello*), *Macbeth Mirror* (a Bengali reworking of *Macbeth*), and *I am Hamlet* (a Bengali adaptation of British playwright Richard James's play exploring the Shakespearean character). The project has also taken long interviews of theatre personalities including Kanchan Amin (wrote, directed and acted in the play *Sauda*), Vikram Iyengar (dancer and actor who directed the dance drama *Crossings*, which explores the psyche of Lady Macbeth), Jayant Kripalani (veteran stage and screen actor who has witnessed and taken part in several Shakespearean productions over the last five decades), Sumit Roy and Katy Lai Roy (founder members of the The Red Curtain, the oldest English theatre troupe in Kolkata, which has been producing Shakespearean and other plays since the 1970s), Debashish Raychaudhuri (academic and musician who has composed music for Shakespearean productions), Biplab Dasgupta (actor and creator of the audio play *William Tagore Meet*), and Subhra Sourav Das (young actor who was part of the Bengali stage production of *Macbeth* and two Bengali film adaptations of Shakespeare, *Hemanta* and *Zulfiqar*). The project has taken a long and



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exhaustive interview of award-winning filmmaker Srijit Mukherji on his recent Bengali film *Zulfiqar*, which is a contemporized and indigenized re-interpretation of *Julius Caesar* and *Antony and Cleopatra*. This interview has been unprecedented in terms of its analytical approach to the film and will prove to be a major resource for students and researchers. The project is scheduled to interview in the near future theatre personalities including Rudra Prasad Sengupta (one of the doyens of the Bengali stage and former academic) and Chandan Sen (directed and acted in a Bengali production of *Julius Caesar*). Recently, a Bengali Diaspora section has been added to the project website, extending the scope of our archival efforts.

- (2) **Translations and Adaptations of Shakespeare** – The project has taken into account several stage and film adaptations of Shakespeare as registered under the previous rubric. It has sourced a catalogue of the Indian adaptations of Shakespeare from the National Library of India. Besides, in its attempt to track the market of Shakespeare for non-specialist and recreational reading in Bengali, the project has purchased from second-hand bookshops around the city paraphrases and verse translations and also abridged and children’s versions of Shakespeare in Bengali produced across a century. The books include translations of Shakespeare plays by Debendranath Basu (published 1919) and re-tellings of Shakespeare for a young audience by Subodh Chakraborty (published 1994). A detailed annotated catalogue of these findings has been produced.
- (3) **Shakespeare Pedagogy** – The project has sourced, scanned and uploaded the running notes of Prof. Sukanta Chaudhuri, Emeritus Professor, Department of English, from his student days, as well as the class notes of his late mother, Prof. Sujata Chaudhuri. This will be an invaluable historical record of classroom practices in the city from half a century ago and in the pre-Independence period. The project has interviewed Prof. Sajni Kripalani Mukherjee, formerly of the Department of English, Jadavpur University, about her encounters with Shakespeare in the classrooms of Kolkata and Oxford and also about her general impressions about Shakespeare’s presence in the cultural scenario of Bengal. The project has interviewed Debashish Raychaudhuri, Associate Professor of English at Anandamohan College, Kolkata, about his experience of studying and teaching Shakespeare in the classrooms of Kolkata, and Swati Ganguly, faculty member of Viswa-Bharati’s Department of English, about her experience teaching Shakespeare in Shantiniketan and staging student productions based on his plays. The project has also painstakingly procured bilingual (English-Bengali) made-easies, guidebooks and university questionnaires on Shakespeare, which will help record and assess a non-elitist but predominant mode of Shakespeare reception among the student population of Bengal.

Apart from this, the project has launched a Facebook page to convey its findings in an accessible way to a diverse and non-specialist audience. The project at present uses a free Wordpress website that has only rudimentary features and comes with several handicaps. The project therefore plans to acquire an official domain space and move over to a full-fledged website with state-of-the-art features within a few months. At the International Workshop on ‘Shakespeare Archiving, Digital Archiving and Textual Computing’ organized by the School of Cultural Texts and Records and the Department of English, Jadavpur University on 29 November 2016, Prof. Paromita Chakravarti and Dr. Abhishek Sarkar jointly made a presentation on the project, showcasing its present



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achievements and future possibilities. The presentation was made in the presence of delegates from the Folger Shakespeare Library (Washington, D.C.), the largest archive of Shakespeare in the world. Recently, the project has entered into the final round of discussions with the Folger Shakespeare Library about sharing its material on their official website.

The project has also proposed to organize under the aegis of CAS (Phase III) an international conference early next year, which will look at the reception of Shakespeare in the broad cultural scenario of Bengal with a special focus on actors and/or audiences in geographically peripheral and diasporic communities. Subject to the availability of funds, the proceedings of the conference will be brought out as a book from a reputed international publishing house. This will be a pioneering contribution to the field and also of a lasting academic significance.

### **C. OTHER PROJECTS:**

CAS English was a partner in the University's EU Project on *Strengthening Undergraduate Education in Indian Universities* with University of Hyderabad, Ambedkar University, Shiv Nadar University, King's College London and University of Bologna, Italy. This project concludes in 2017.

#### **2. C. Individual Projects**

##### **Prof. Ananda Lal**

1. Project Head, Tagore Cultural Complex at Jadavpur University (Union Ministry of Culture and matching grant from Government of West Bengal)

##### **Prof. Amlan Das Gupta**

1. *Documentation of Cultural Texts*, supported by the University with Potential for Excellence Scheme, Phase-II, University Grants Commission.
2. *Digitisation of South Asian Cultural Resources*, in association with the British Library, UK and supported by Sir Ratan Tata Trust, Mumbai. (Concluded 2016)
3. *Reorganization, Digitization and Cataloguing of the Maulana Abul Kalam Azad Collection of Paper Records*, with the Maulana Abul Kalam Azad Institute of Asian Studies, Kolkata.
4. *Digitisation of the Paper Records* at the Victoria Memorial Hall, Kolkata.
5. *Famine and Dearth in India and Britain, 1550-1800*: with Exeter University supported by AHRC, UK. (Concluded 2016)

##### **Prof. Nilanjana Gupta**

1. Madrasa Education in India Rs 14 lakhs UPE II ongoing
2. Acropolis: A Study of the concept of the Global City UPE II Rs 10 lakhs Ongoing
3. Youth Reporters, funded by UNICEF Rs 24lakhs, ongoing

##### **Prof. Abhijit Gupta**

1. Co-investigator, 'Two Centuries of Indian Print', with the British Library UK, funded by the AHRC, 2016-18.
2. P.I.: 'Physical Cultures of Bengal', UPE-II Programme, UGC, ongoing

**Prof. Paromita Chakravarti**

1. Coordinator, Shakespeare in Bengal project under CAS, Dept of English.
2. “Mobilising Single Women in West Bengal” (Second Phase)—funded by AJWS and hosted by Sappho for Equality, September 2016 to August 2017.

**Dr. Nilanjana Deb**

1. Project Investigator, EAP 922: DIGITIZATION AND CONSERVATION OF ENDANGERED PAPER RECORDS OF THE BRITISH INDIAN ASSOCIATION in collaboration with the British Library and funded by the Endangered Archives Programme, from September 1, 2016 (ongoing). The project involves intensive onsite sorting, as well as digitizing and listing of material at the British India Association. The value of the project is approximately 34 lakhs, and is being conducted under the aegis of the School of Cultural Texts and Records.

**Sri Manojit Mandal**

1. Projects funded by UGC UPEII , amount generated: 30 lacs, amount spent till March 2017, 8 lacs(approx).
2. Projects funded by JU amount spent 3 lacs(approx)

**Dr. Abhishek Sarkar**

1. Joint coordinator CAS Project entitled ‘Shakespeare in Bengal’.

**3. A. Invited Lectures Delivered/ Sessions Chaired**

**Prof. Ananda Lal**

1. “Female Impersonation in Theatre”. Special lecture for Homage to Androgyny in Performing Arts, Future Media School, Kolkata, April 2016.
2. “Conflict in Drama”. Special lecture for the Management Development Programme on Conflict-Resolution, Negotiation and Communication, IIM Kolkata, Joka, September 2016.
3. “Indigenous Theatre Architecture: Our Neglected Heritage”. Third lecture in the Heritage series, Natya Shodh Sansthan, Kolkata, October 2016.
4. “The Classic Indian ‘Stepmotherly’ Treatment: Literature and Arts Education in Future”. Invited lecture, Global Education Summit, Presidency University, Kolkata, January 2017. Uploaded by the Presidency University Bicentenary Celebrations at <<https://www.youtube.com/watch?v=z00rzi9qjjA>>

**Prof. Nilanjana Gupta**

1. Invited for Special Lecture Session on “City and Identity in the 21<sup>st</sup> Century” Kidderpore College, Kolkata January 2017
2. Invited Speaker at Colloquium on “The Flux in India’s Higher Education System” organized by Indian Association of Women’s Studies, Chennai, January 2017
3. Keynote Speaker at Seminar on “Child Lore & Identity” at Mizoram University (with Sahitya Akademi) November 2016
4. Talk on “Value of Education” at Departments of English, Arabic & Comparative Literature, University of Calicut, Kerala

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**Prof. Paromita Chakravarti**

1. Special lecture on girls' education for 8<sup>th</sup> March (2017), International Women's Day celebrations organized by the Indian Statistical Institute.
2. Delivered talk on sexual harassment in the workplace at the Gender sensitization programme organized by the National University of Juridical Sciences for IRCTS employees on 3<sup>rd</sup> March, 2017.
3. Delivered talk on "Singleness as queer practice" at the Sexuality Academy (22-26<sup>th</sup> March 2017—a residential workshop) organized by Sappho for Equality in Kolkata on 23<sup>rd</sup> March, 2017.
4. Chaired session on 19<sup>th</sup> Jan 2017 in "Nexus: Anglo Indian Literature and Anglo Indian life", a workshop organized by the School of Women's Studies, JU, 18-19<sup>th</sup> January, 2017, in JU, Kolkata.
5. Chaired a plenary session in the conference on "Imaging the differently abled: Reading and Translating the Indian short story", organized by the Dept of English, CAS, JU, 18-20<sup>th</sup> January, 2017.
6. Chaired a session at the students' conference on "Cross Cultural Encounters and Negotiations: Place, Space, Identity", organized by the Dept of English, CAS, JU, 16-17<sup>th</sup> February, 2017

**Prof. Nandini Saha**

1. Delivered special lectures on invitation in Friedrich-Schiller University, Institute for English and American Studies, on 28 April 2016 on Indian English Literature.
2. Keynote address in International conference titled "Disrespected Neighbo(u)rs: Cultural Stereotypes in Literature and Film", held at the Friedrich-Schiller University, Jena Germany, between 21 and 23 April 2016.

**Dr. Nilanjana Deb**

1. Invited Lecture on 18th January 2017 on Native American Literature at the USIS, Kolkata

**Smt Sonia Sahoo**

1. Invited UGC lecture at Deshbandhu College for Women, Kolkata, September 2016 on 17th century Baroque Art

**Dr. Saswati Halder**

1. Delivered a special lecture on 'Victorian Poetry' to the learners of Netaji Subhas Open University, January 2017
2. Chaired a session in Prof. Debabrata Mukherjee Memorial Annual Students' Seminar entitled 'Money Matters: Currencies in Literature,' in March 2017

**Sri Ramit Samaddar**

1. Nine lectures on Victorian thought and George Gissing to PG students of Lady Brabourne College, Kolkata, April 2016

**Dr. Abhishek Sarkar**

1. Chaired a session at the National Students' Conference organized by the Department of English, Jadavpur University, 16-17 February 2017.

**Sri Kaustav Bakshi**

1. Invited to deliver a lecture on the panel, 'Sex, Terror and the Nation State' at the Asian and Asian American Studies Institute, **University of Connecticut**, Storrs, the United States of America on 27 March 2017. URL to the event page: <http://events.uconn.edu/event/53379/2017-03-27>

**3. B. Seminar/ Workshop/ Conference/ Symposium Attended:**

**Prof. Ananda Lal**

1. "What Shakes Us and What Doesn't: Stage Productions during the Celebrations, 2014-16". Seminar on *Shakespeare and India*. Sahitya Akademi, Kolkata, January 2017.
2. "The Unity of the Arts". International Symposium on *Connecting Histories*. CIMA Kolkata Art Festival, Kolkata, February 2017.
3. "African American De-Integration and Angry Young Men: A Look at Two Recent Rap Masterpieces". Jadavpur University Society for American Studies 20th Anniversary Seminar on 'Other'-ness and Other Worlds: The Clash of Inclusiveness and Exclusivity in American Literature and Art. Jadavpur University, Kolkata, February 2017.

**Prof. Nilanjana Gupta**

1. "City and Identity in the 21<sup>st</sup> Century" Kidderpore College, Kolkata January 2017
2. Colloquium on "The Flux in India's Higher Education System" organized by Indian Association of Women's Studies, Chennai, January 2017
3. Seminar on "Child Lore & Identity" at Mizoram University (with Sahitya Akademi) November 2016

**Prof. Prodosh Bhattacharya**

1. UGC-Sponsored One-Day National-level Seminar on "Literature, Medicine and Psychoanalysis in Colonial and Postcolonial India" organized by Departments of English and Bengali, Chandrakona Vidyasagar Mahavidyalay, Paschim Medinipur in collaboration with Dept. of English, Sukumar Sengupta Mahavidyalay, Paschim Medinipur

**Prof. Santanu Biswas**

1. UGC state-level seminar on 'Hybridisation of Science and Literature', Departments of Chemistry and English, Mahadevananda Mahavidyalaya, August 2016.

**Prof. Abhijit Gupta**

1. Two lectures at *National Workshop on Contemporary Interpretations of T.S. Eliot*, Bhopal School of Social Sciences, 25 February 2017
2. "'Most tolerable and not to be endured": Playing Shakespeare in Calcutta", at *Global Shakespeare*, St Mira's College, Pune, 16-17 December 2016
3. 'The Books of Fort William College: A Prolegomena', at Languages of the Book, the annual conference of the Society for the History of Authorship, Reading and Publishing (SHARP), Bibliotheque Nationale, 18-22 July, 2016.

**Prof. Paromita Chakravarti**

**International:**

1. Delivered paper on "Taming of the Bard: Domesticating farce in Srimati Bhayankari" in the Indian Shakespeares on Screen conference organized by Royal Holloway College, at Asia House, between 27<sup>th</sup>-30<sup>th</sup> April, 2016

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2. Delivered talk at a roundtable at Stratford, organized by the Shakespeare Institute at the Other Place on 3<sup>rd</sup> May, 2016
3. Delivered a keynote presentation entitled “Shakespeare beyond Bollywood: Two Lear films and Bengali Modernity” at the international seminar organized by the Armenian Shakespeare Association in Yerevan between 1-3 October, 2016.
4. Delivered paper entitled “‘Where be your gibes now, your gambols, your songs?’: Shakespeare’s ghostly clowns” in a panel on “Going Hence” coordinated by Prof Sukanta Chaudhuri in the international conference on “Shakespeare’s Ashes” at the British Council, New Delhi on the 21st and 22nd of October, 2016 organised jointly by The Shakespeare Society of India, in association with Ashoka University and the British Council.
5. Presented a paper on the “Shakespeare in Bengal” archival project under CAS at the International Workshop on Shakespeare Archiving organized by the School of Cultural Texts and Records, JU, on 29<sup>th</sup> November 2016

#### **National:**

6. Delivered talk on Women and Media at the Film Appreciation Course organized by the Chalachitra Satabarsha Bhavan, 21st July, 2015.
7. Delivered talk on Marriage and Singleness at the National Consultation on “ A critical Examination of Sexuality Discourse in India” organized by Nirantar at the India Habitat Centre, New Delhi, 16<sup>th</sup>-17<sup>th</sup> June, 2016.
8. Delivered talk on “women in Community mental health” at the National Conclave for Community Mental Health organized by Anjali, in Kolkata, 15<sup>th</sup>-16<sup>th</sup> July, 2016.
9. Delivered a paper entitled “Challenging Marriage: Singleness as a queer life practice” on 22<sup>nd</sup> January, 2017 at Chennai at the XV th Indian Association for Women’s Studies conference (“Women in a Changing World: Restructured Inequalities, Countercurrents and Sites of Resistance”.) under the subtheme “Interrogating and expanding Feminist questions on sexuality and gender”.
10. Delivered a talk on “Singleness and Marriage” at the national Research conclave on early marriage organized by Partners in Law Development and AJWS at Zorba the Budha, New Delhi, between 27<sup>th</sup> Feb and March 1<sup>st</sup>, 2017.

#### **Prof. Nandini Saha**

1. Keynote address in International conference titled “Disrespected Neighbo(u)rs: Cultural Stereotypes in Literature and Film”, held at the Friedrich-Schiller University, Jena Germany, between 21 and 23 April 2016.
2. Presented a paper titled ‘Caste and Gender: Representation in Literature and Film’ at the annual conference of the School of Women’s Studies, Jadavpur University, titled ‘Women Speak Nation: Identities and Intersectionalities’ on the 8 and 9th of April, 2016.

#### **Dr. Rafat Ali**

1. ‘Qur’an and the ‘Divine Writ’: Islam in the “Writing Process” of Contemporary British Muslim Fiction’. National Conference on *Pen, Pain and Writing: Rethinking Links, Connectives and Negotiations*, Department of English, Salesian College, Siliguri, 6-7 January, 2017.

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**Sri Manojit Mandal**

Paper presented/Lecture delivered/resource persons;  
National-9; International-4

**Dr. Sutanuka Ghosh**

1. Reading 'private' and 'public' intimacies in Rabindranath Tagore's *Ghare Baire* and *Sabitri*

Roy's *Bawdwip* and *Meghna-Podma*, The 45th Annual Conference on South Asia, University of Wisconsin-Madison, USA, Oct 2016

**Dr. Abhishek Sarkar**

1. Presented a paper entitled "Disability and Sexual Desire in the Short Stories of Jyotirindra Nandi" at the three-day UGC-sponsored national conference entitled 'Imagining the Differently Abled: Reading and Translating the Indian Short Story' organized by the Departments of English, Jadavpur University from 18 to 20 January 2017.
2. Presented a paper entitled "*Hariraj* and *Haider*: Rehearsing the Indian Imaginary in Two *Hamlet* Adaptations" at the Second International Biannual Conference of the Asian Shakespeare Association held from 1 to 3 December 2016 in New Delhi.
3. Presented a paper (jointly with Prof. Paromita Chakravarti) on "The Shakespeare in Bengal Project" at the International Workshop on "Shakespeare Archiving, Digital Archiving and Textual Computing" organized by the School of Cultural Texts and Records and the Department of English, Jadavpur University on 29 November 2016.
4. Presented an illustrated paper entitled "Wallace Stevens and William Carlos Williams: The Uses of Painting in Poetry" at the State-level seminar on "American Poetry in Interaction with the Other Arts and Other Literatures: Cross-Pollinations" organized by the Jadavpur University Society for American Studies (JUSAS) and held on November 11, 2016.

**Sri Kaustav Bakshi**

1. Presented a paper at the international conference "The Place of Religion in Film", as a part of the Ray Smith Symposium at **Syracuse University** in Upstate New York, the United States of America, on 31 March 2016. URL to the conference: <http://religionconference.syr.edu/schedule/>

**3. C. Seminar/ Workshop/ Conference/ Symposium Organized:**

**Prof. Ananda Lal**

1. Director, Garcia Lorca's *Yerma*. Departmental theatre production for 2016-2017. Invited for performances by various organizations, including the Birla Sabhagar Theatre Festival and Indian Council for Cultural Relations, Kolkata.

**Prof. Abhijit Gupta**

1. Chief organizer of 'Doing Graphic Stories: A Comics Festival', 12-14 January 2017

**Prof. Paromita Chakravarti**

1. Was part of the organizing committee, chaired sessions and led the Q and A with director Jayraj on his new film on *Macbeth* (*Veeram*) at the Asian Shakespeare Association's Biennial Conference 'All The World's his Stage: Shakespeare Today' held from 1st to 3rd December 2016 at the Indira Gandhi National Centre for the Arts, New Delhi.



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2. Co-organised international symposium on “Sexuality, Health and Cultural Narratives” with Kaustav Bakshi in the Dept of English JU, in collaboration with Wellcome Trust, University of Sussex, Varta Trust on 24<sup>th</sup> August, 2016.

**Prof. Nandini Saha**

1. Co-coordinated a National seminar titled “Imaging the Differently Abled: Translating the Indian Short Story” between 18-20 January 2017

**Dr. Nilanjana Deb**

1. Convenor, two week GIAN workshop on “Environmental Humanities: Ecology, Culture and Intervention.” The workshop was led by Professor Stephen Muecke, Professor of Ethnography at University of New South Wales, Sydney, Australia. The workshop was held from November 14-30, 2016 and had a budget of 6 lakhs.

**Smt. Sonia Sahoo**

1. Member, Organizing Committee, UGC sponsored National Conference organized by the Centre of Advanced Study, Department of English, Jadavpur University – ‘Imaging the Differently Abled: Reading and Translating the Indian Short Story’, 18-20 January 2017.
2. Joint Convener, National Students’ Conference, organized by Centre of Advanced Studies, Department of English, Jadavpur University – ‘Cross-Cultural Encounters and Negotiations: Place, Space, Identity’, 16-17 Feb, 2017.
3. Joint Convener, Workshop on Linguistics and Language Documentation organized by Department of English, Jadavpur University, 27 Mar, 2017

**Dr. Saswati Halder**

1. Coordinator of a six-month certificate course entitled ‘Functional and Communicative English,’ at School of Languages, Faculty of Arts, Jadavpur University.
2. Jointly coordinated a national conference on ‘Imaging the Differently Abled: Reading and Translating the Indian Short Story,’ organized by the Centre of Advanced Study, Department of English, Jadavpur University in January 2017.
4. Jointly coordinated a national students’ conference on ‘Cross-Cultural Encounters and Negotiations: Place, Space, Identity,’ organized by the Centre of Advanced Study, Department of English, Jadavpur University in February 2017.
4. Jointly coordinated a one-day workshop on ‘Introduction to the Study of Linguistics and Training on Language Documentation,’ organized by the Centre of Advanced Study, Department of English, Jadavpur University in March 2017.

**Sri Manojit Mandal**

1. Jt. Coordinator, Celebration of World Disability Day followed by Workshop on Mindfulness, December 2016.
2. Coordinator, International Conference on “Higher Education, Universities and Excellence: The Bengal Narrative”, organized by the Centre for Studies and Rehabilitation of Differently Abled Persons and WBCUPA JU, December 2016.
3. Jt. Coordinator, National Conference on “Disability and Contemporary Indian Short Stories,” organized by CAS, English, JU, January 2017.
4. Coordinator, National conference on, “Science, Technology and Disability: A National Perspective”, organized by the Centre for Studies and Rehabilitation of Differently Abled Persons, JU, March 2017.



**Dr. Abhishek Sarkar**

1. Organized and co-ordinated a State-level seminar on “Otherness and Other Worlds: The Clash in American Literature and Art between Inclusiveness and Exclusivity” on behalf of the Jadavpur University Society for American Studies (JUSAS) on 28 February and 1 March 2017.
2. Organized and co-ordinated a State-level seminar on “American Poetry in Interaction with the Other Arts and Other Literatures: Cross-Pollinations” on behalf of the Jadavpur University Society for American Studies (JUSAS) on 11 November, 2016.
3. Organized, supervised and participated in a State-level workshop on “Translating African-American Poetry” on behalf of the Jadavpur University Society for American Studies (JUSAS) on 23 June, 2016.

**Sri Kaustav Bakshi**

1. Organised the international conference “Sexuality, Health and Cultural Narratives” at the Department of English, Jadavpur University, funded by **Wellcome Trust**, United Kingdom, on 24 August 2016.

**3. D. Orientation Courses/ Refresher Courses Attended:**

**Sri Manojit Mandal**

1. Short Term course on Stress management and Psychological Counselling, HRDC, JU.
2. Winter School, “Nation and Higher Education”, HRDC, JU.

**4. A. Books/ Monographs Published:**

**Prof. Ananda Lal**

**1. Research-based radio script**

*Tagore: A Spiritual Journey through Melody.* (Commissioned.) National Programme, Akashvani, 2016.

**Prof. Amlan Das Gupta**

1. *Gaan Niye* (In Bengali) (Talpada, Kolkata 2017)

**Prof. Nilanjana Gupta**

**(a) Books:**

1. Editor, *Dance Matters Too: Markets, Memories, Identities*, Routledge, New Delhi & London, In print, 2017 (with Pallabi Chakraborty)
2. Coordinator Editor, *English for All* 3<sup>rd</sup> Edition, Macmillan, Manuscript preparation

**4. B. Articles in Journals /Chapters in Books:**

**Prof. Ananda Lal**

**Articles (Book Chapters)**

1. “The Torch Not the Sceptre’: Writers Workshop, Calcutta”. In *A History of Indian Poetry in English*. Ed. Rosinka Chaudhuri. New York: Cambridge University Press, 2016.
2. “Interculturalism in *The King of the Dark Chamber* in New York, 1961”. In *Rabindranath Tagore and America: Overtures and Responses*. Ed. Indrani Haldar and Sukla Basu (Sen). Kolkata: Jadavpur University Society for American Studies, 2017.

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### Articles/Reviews in newspapers/journals

1. 40 theatre reviews in *The Telegraph*, Kolkata.
2. "Dancing beneath Diamond Sky". (On Bob Dylan's Nobel Prize.) *The Telegraph*, Kolkata, 14 October 2016.

### Prof. Amlan Das Gupta

#### Articles (Book Chapters)

1. "The Humanities in the Age of their Digital Operability" in *The Place of Humanities in Our Universities*, ed. Mrinal Miri, OUP, Delhi
2. "Plates and Bangles", in volume on *Commodities and Culture*, ed. Jo McDonagh, Rajeshwari Sunder Rajan, Brian Murray and Supriya Chaudhuri, Routledge, London
3. "The Economy of Hunger: Representing the Bengal Famine of 1943" in *A Cultural History of Famine: Food Security and the Environment in Britain and India* ed. Ayesha Mukherjee, Routledge, London.
4. Artists in the Open in Music, *Modernity, Public Sphere*, ed T. Niranjana, OUP, Delhi

### Prof. Prodosh Bhattacharya

#### Articles (both due for publication)

1. 'Literature and Medicine in Post-Colonial India with Reference to Two Bengali Texts' in the records of the National Seminar on 'Literature, Medicine and Psychoanalysis in Colonial and Postcolonial India' (see below)
2. 'Wilde Desire' across Cultures: Dracula and its Bengali Adaptations' co-authored with Abhirup Mascharak, my Ph. D. scholar in the book *Imperial Maladies: Literatures on Healthcare and Psychoanalysis in India*, Editors: Pritha Kundu and Debashis Bandyopadhyay (Dept. of English, Chandrakona Vidyasagar Mahavidyalaya, West Bengal, India, and others)

### Prof. Santanu Biswas

#### Articles in books and journals

1. 'Repetition and Death Instinct in *Subarnarekha*', in Manas Ghosh (Ed.) *The Golden Thread of Ritwik Ghatak* (Hyderabad: Orient Black Swan, forthcoming).
2. 'Hybridisation of Science and Literature: The Case of Psychoanalysis', in Proceedings of the UGC State-level seminar on 'Hybridisation of Science and Literature', Mahadevananda Mahavidyalaya, Kolkata: 2017, 17-26.

### Prof. Abhijit Gupta

#### Articles in edited volumes

1. "The Newspaper and the Periodical Press in Colonial India", with Deeptanil Ray, in Joanne Shattock, ed. *Journalism and the Periodical Press in Nineteenth-Century Britain* (Cambridge: CUP, 2017)

#### Articles/Reviews in newspapers/journals

1. 'Urbanization from Below', Book Review, March 2017 (review of *Claiming the City*)
2. 'Eavesdropping and fierce whisperings in Calcutta', *Blink*, 15 July 2016
3. 'Mother and Other Tongues', *Indian Express*, 23 April 2016 (review of *The Girl Who Ate Books*)

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4. 'Scandals in Old Calcutta', Live Mint, 29 April 2016
5. 'From the Bengal Press', Live Mint, 27 May 2016
6. 'A Brief History of Indian Body Building', Live Mint, 16 June 2016
7. 'A Literary Treasure Hunt', Live Mint, 23 September 2016
8. 'The zamindar who turned book hawker', Live Mint, 23 November 2016
9. 'Monkey Business', Live Mint, 16 December 2016
10. 'The Lion that Scared a School', Live Mint, 20 January 2017
11. 'Brave New Worlds in 1845', Live Mint, 24 February 2017

#### **Prof. Paromita Chakravarti**

##### **(b) Articles: In books—**

1. "Pleasurable Errors and Erroneous Pleasures: Renegotiating Shakespearean Romance in Three Indian Films" in Bi-qui Beatrice Lei, Judy Celine Ick and Poonam Trivedi eds. *Shakespeare's Asian Journeys: Critical Encounters, Cultural Geographies and the Politics of Travel*, New York: Routledge, 2017, pp.219-238

#### **Prof. Nandini Saha**

##### **Chapters in Edited Volumes:**

1. "Pragmatics and Regionalism in the Indian English Novel". In *Pragmatic Perspectives on Postcolonial Discourse: Linguistics and Literature*. Edited by Christoph Schubert and Laurenz Volkmann. Newcastle upon Tyne, NE6 2PA, UK: Cambridge Scholars Publishing, 2016. ISBN (10): 1-4438-9437-0. ISBN (13): 978-1-4438-9437-1
2. "Emergent Identities: Women Dalit Writers from Bengal". In *Emergent Identities in Literature*. Edited by Margaret L. Pachuau and Thongam Dhanajit Singh. Noida: Headword Publishing Pvt Ltd, 2016. ISBN: 978-9-38-565645-3

#### **Smt Sonia Sahoo**

##### **Articles in Journals**

1. 'Resituating Brexit: Anxieties of Early Modern Cultural and Linguistic Translation', *Caesurae: Poetics of Cultural Translation*, Vol 2, Issue 1, Special Issue, January, 2017. (ISSN 2454-9495), pp. 59-70. URL/DOI: <http://www.caesurae.org/>

#### **Dr. Rafat Ali**

##### **Articles: (book chapters)**

1. 'On the Road to *Dar-Al-Shahadah*: Migrant Muslims and the Islamic Life in British Muslim Writing', in *Believing and Belonging: Critical Essays on British Muslim Fiction*. Ed. A. R. Kidwai and A. Siddiqui. New Delhi: Viva Books, 2016.

##### **Articles/Reviews in newspapers/journals:**

1. Review of Abdur Raheem Kidwai, *Orientalism in English Literature: Perception of Islam and Muslims*. (New Delhi: Viva Books, 2016) in *Hamdard Islamicus*, vol.33, no. 4 (October-December 2016).

#### **Sri Manojit Mandal**

##### **Articles/Reviews in newspapers/journals:**

1. "Disability Today: Definitions, Rights & Rehabilitation", Introduction to the Special Issue, *International Research Journal Persons with Special Needs and Rehabilitation Management*, Vol. II, March 2017, Jadavpur University

### **Annual Report 2016-17**

2. Editor, International Research Journal Persons with Special Needs and Rehabilitation Management, Special Issue, Vol. II, March 2017, Jadavpur University.
3. Editor, Newsletter published from the Centre for Studies and Rehabilitation of Differently Abled Persons, JU.

#### **Sri Ramit Samaddar**

##### **Articles in books**

1. 'In the Exigency of a National Cause: Bollywood's Responses to the Kargil War', in Douglas Cunningham and John Nelson (eds), *A Companion to the War Film* (Malden, MA: Wiley-Blackwell, 2016), pp. 180-197.

#### **Dr. Abhishek Sarkar**

##### **Articles in journal**

1. "Haider and the Nation-State: Shakespeare, Bollywood, and Kashmir," *South Asian Review*, vol. 37.2 (2016): 1-18. ISSN 0038-2841.

#### **Sri Kaustav Bakshi**

##### **Articles in books**

1. 'In the Exigency of a National Cause: Bollywood's Responses to the Kargil War', in Douglas Cunningham and John Nelson (eds), *A Companion to the War Film* (Malden, MA: Wiley-Blackwell, 2016), pp. 180-197.

##### **5. Collaborative Programmes:**

#### **Prof. Amlan Das Gupta**

1. *Digitisation of South Asian Cultural Resources*, in association with the British Library, UK and supported by Sir Ratan Tata Trust, Mumbai. (Concluded 2016)
2. *Reorganization, Digitization and Cataloguing of the Maulana Abul Kalam Azad Collection of Paper Records*, with the Maulana Abul Kalam Azad Institute of Asian Studies, Kolkata.
3. *Digitisation of the Paper Records* at the Victoria Memorial Hall, Kolkata.
4. *Famine and Dearth in India and Britain, 1550-1800*: with Exeter University supported by AHRC, UK. (Concluded 2016)

#### **Prof. Nilanjana Gupta**

1. Youth Reporters, funded by UNICEF Rs 24lakhs, ongoing

#### **Prof. Abhijit Gupta**

1. Co-investigator, 'Two Centuries of Indian Print', with the British Library UK, funded by the AHRC, 2016-18.

#### **Prof. Paromita Chakravarti**

1. "Mobilising Single Women in West Bengal" (Second Phase)—funded by AJWS and hosted by Sappho for Equality, September 2016 to August 2017.

#### **Dr. Nilanjana Deb**

1. Project Investigator, EAP 922: Digitization and Conservation of the Endangered Paper Records of the British Indian Association in collaboration with the British Library and funded by the Endangered Archives Programme, from September 1, 2016 (ongoing).

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The project involves intensive onsite sorting, as well as digitizing and listing of material at the British India Association. The value of the project is approximately 34 lakhs, and is being conducted under the aegis of the School of Cultural Texts and Records.

### **6. Major Achievements**

#### **Prof. Ananda Lal**

1. Project Head, Tagore Cultural Complex at Jadavpur University (Union Ministry of Culture and matching grant from Government of West Bengal)

#### **Prof. Amlan Das Gupta**

1. Completed the projects on 'Digitisation of South Asian Cultural Resources' in association with the British Library, UK and supported by Sir Ratan Tata Trust, Mumbai in 2016 and 'Famine and Dearth in India and Britain, 1550-1800' with Exeter University supported by AHRC, UK also in 2016.

#### **Prof. Nilanjana Gupta**

1. Coordinator CAS III as well as Cultural Resources and Social Sciences Programme, UGC-UPE II. She supervised several projects, on "Science for Women", "Madrasas in India", "Acropolis" and "UNICEF Child Radio Reporters."

#### **Prof. Santanu Biswas**

1. Honorary Member, Lacan Circle of Melbourne, Joint Editor, *Culture/Clinic* (Département de Psychanalyse, Université de Paris VIII, and Columbia University), and a practising psychoanalyst.

#### **Prof. Abhijit Gupta**

1. Honorary Director, Jadavpur University Press

#### **Prof. Paromita Chakravarti**

1. Visiting Fellow at the University of Birmingham (Indian short term fellowship), 25<sup>th</sup> April-25<sup>th</sup> May, 2016.

#### **Prof. Nandini Saha**

1. Co-coordinated a National seminar titled "Imaging the Differently Abled: Translating the Indian Short Story" between 18-20 January 2017

#### **Dr. Nilanjana Deb**

1. Convener, two week GIAN workshop on "Environmental Humanities: Ecology, Culture and Intervention." The workshop was led by Professor Stephen Muecke, Professor of Ethnography at University of New South Wales, Sydney, Australia. The workshop was held from November 14-30, 2016 and had a budget of 6 lakhs.

#### **Dr. Saswati Halder**

1. Editor-in-Chief of the Centre for Victorian Studies' interdisciplinary online Journal 'The Confidential Clerk.'
2. Coordinator, Centre for Victorian Studies, Jadavpur University.
3. PhD thesis on 'A Goodness Entirely Human: The Influence of Feuerbach on George Eliot's Fiction' submitted in September 2016 and viva-voce successfully completed in May 2017.

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### Sri Manojit Mandal

1. Coordinator, National conference on, "Science, Technology and Disability: A National Perspective", organized by the Centre for Studies and Rehabilitation of Differently Abled Persons, JU, March 2017.
2. Jt. Coordinator & Member, Academic Committee, Centre for Studies and Rehabilitation of Differently Abled Persons, JU.

### Dr. Sutanuka Ghosh

1. Jt. Coordinator, Centre for Victorian Studies, Jadavpur University.

### Dr. Abhishek Sarkar

1. Co-ordinator, the Jadavpur University Society for American Studies (JUSAS).

## FILM STUDIES

Phone : + 91- 33-2414-6689  
Int. : 2457-2467  
Media Lab : 2457-2636  
H.O.D. : Prof. Abhijit Roy  
E-mail : hod@filmst.jdvu.ac.in  
hod.filmstudy@jadavpuruniversity.in

### 1. A. Courses Offered: (Name of the Course, Duration of the Course, No of Students Enrolled)

- MA in Film Studies (2 Years; 35 Students each year)
- Undergraduate Extra-Departmental (6 courses over 4 semesters; 35 students in each course)
- PhD Coursework (1 semester every year; 3 Scholars enrolled for July-December, 2016)
- PhD programme (3 scholars registered between 01-04- 2016 and 31-03- 2017)

### 1. B. Name of the Faculty Members:

Name of the teacher	Designation
Prof. Sanjoy Mukhopadhyay	Professor (Retired on 31-12-2016)
Prof. Moinak Biswas	Professor
Prof. Abhijit Roy	Professor
Dr. Madhuja Mukherjee	Associate Professor
Anindya Sengupta	Assistant Professor
Shradhanjali Tamang	Assistant Professor
Dr. Manas Ghosh	Assistant Professor (Contractual)
Dr. Subhajit Chatterjee	Assistant Professor (Contractual)



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**2. A. Area of Research Activities:** (Broad Areas)

Name of the Teacher	Specialization
Prof. Sanjoy Mukhopadhyay	Classical Film Theory, Film and Other Arts, Cinema of Ritwik Ghatak and Satyajit Ray, Walter Benjamin and Theories of Modernity, Modernisms
Prof. Moinak Biswas	Indian cinema, Film Theory, Cultural theory
Prof. Abhijit Roy	Indian Television, Television Studies, Media Theories
Dr. Madhujā Mukherjee	Historiography and Indian film industry (including its contemporary phase, and regional sectors), Public cultures and spaces, Film organizations, History of technologies, techniques, styles, genres, gender and stars, Sound of Indian films, Bengali popular cinema and exhibition networks.
Anindya Sengupta	Classical Hollywood Cinema, Cinema of Satyajit Ray and Ritwik Ghatak, French New Wave and Film Theory
Dr. Manas Ghosh	Asian Cinema, Iranian Cinema, Latin American Cinema, Non-fiction films
Dr. Subhajit Chatterjee	Film Historiography, Bengali Cinema, Indian Film and Popular Culture, Cult and Exploitation Films, New Waves and Japanese Cinema
Shradhanjali Tamang	Nepali Cinema; National and Transnational, Ethnographic films on Eastern Himalayas, Oral history and tradition of Eastern Himalayas, Translation.

**2. B. Major Research Projects:** (Departmental/Individual, Name of the Project/Funding Agency)

**Abhijit Roy, Principal Investigator**

1. Name of the project: 'New Media for Change: Multimedia Stories on Under-reported Issues'; Funding Agency: UGC (UPE phase-II, Jadavpur University).

**3. A. Invited Lectures Delivered / Sessions Chaired:**

(Name of the Teacher, Type of Participants, name of the Seminar/Conference etc, Place, Duration)

**Sanjoy Mukhopadhyay**

1. 'Arrival of Cinema: Modernity', lecture at Department of History, Visva-Bharati, April 8, 2016.
2. 'M.F.Husain's *Gajagamini*', talk at Academy of Fine Arts, April 12, 2016.
3. Speaker, Annual Bhaskar Chakrabarti Memorial Lecture, Bangla Academy, July 23, 2016.

**Moinak Biswas**

1. Lecture on 'Narration in Indian Cinema' at Film Appreciation Course, Chalachchitra Satabarsha Bhavan, July, 2016.
2. Lecture on 'The Absences of Abbas Kiarostami', School of Cultural Texts and Records, July, 2016.



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3. Lecture on 'Kiarostamir bhuban', 'Cinema of Resistance', Jogesh Mime Academy, August, 2016.
4. Panel speech on 'Doing Film Society', National Seminar on 'Encountering World Cinema in India', November 4, 2016.
5. Lecture on 'Time in Cinema' in the course of 'Management through Film', Indian Institute of Management Calcutta, February, 2017.

#### **Abhijit Roy**

1. 'Television and Popular Culture' and 'Film and Television in the Era of Globalization', two lectures at the film appreciation course, Chalachhitra Satabarsha Bhaban, Govt. of West Bengal, Calcutta, 3 August, 2016.
2. 'Television and the Indian State' and 'Television and Popular Culture in India', two lectures at the 105th Orientation programme organized by Human Resource Development Centre, Burdwan University, 7 September, 2016.
3. Chaired two sessions at the national seminar on 'Encountering World Cinema in India' organized by Department of Film Studies, Jadavpur University, 3-4 November, 2016.
4. Chaired a session at the International Seminar on 'Shifting Significations of Borders in Contemporary South Asia and the Americas' organized by the Centre for Studies in Latin American Literatures and Cultures & Centre of Advanced Study (CAS), Department of Comparative Literature, Jadavpur University, 19 January, 2017.
5. Presentation at a panel discussion on 'From local cultures to a global culture', *Suffragium*: Annual departmental event of Department of Political Science, St. Xavier's College (Autonomous), Kolkata. 11 February, 2017.
6. 'Studying Radio: Basic Concepts', lecture at the UGC-sponsored 6-month certificate course on 'Radio Production', School of Media, Communication and Culture, Jadavpur University, 17 February, 2017.
7. Chaired a session at the National Seminar on 'Sustenance and Development in the Tea Gardens of Northeast India and North Bengal' organized by the project 'A Study of Education as Social Security Measure in the Tea Gardens of Northeast India and North Bengal' under UGC-UPE (Phase II) programme of Jadavpur University, 26 March, 2017.

#### **Madhuja Mukherjee**

1. 'Bengali Cinema: Studio Era' and 'Indian Popular Cinema: Raj Kapoor and Mehboob Khan', two lectures at the Film Appreciation Course organized by Chalachitra Satabarsha Bhavan, Govt. of West Bengal, June-July, 2016.
2. 'Let's Make Some Noise: Campus Activism, Youth Movement and Creativity', lecture at *Inter-Asia Cultural Studies* Summer School 2016, Lingnan University, Hong Kong, June 2016.
3. 'The Medium and the Frame', lecture at the Lecture Series: Passage II, at Chander Haat Art Space, Kolkata, December 2016.
4. Chair of the session 'Doing Graphic Stories: A Comics Festival', organized by Department of English, Jadavpur University, and Longform Collective, January 2017.
5. Chair of the session 'Video Vortex XI, Video in Flux: Art, Activism & Archives', organized by The Srishti Institute of Art, Design & Technology, a collateral project of Kochi-Muziris Biennale, February 2017.

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6. Talk on 'Porous Archives, Absentee Image' (Session: Preserving Time) at the seminar on 'Photo Sensitive: Locating Photography Today' organized by Alkazi Foundation for the Arts, and Culturelle Institut Français en Inde, New Delhi, December 2016.

#### **Shradhanjali Tamang**

1. Chaired a session at the National Seminar on 'Encountering World Cinema in India' organized by Department of Film Studies, Jadavpur University, November 3-4, 2016.
2. Chaired a session at the 9<sup>th</sup> Debrupa Bal Memorial National Students' Seminar on 'India, the Self and the Other: Conflict, Dialogue and Synthesis', organized by Department of Comparative Literature, Jadavpur University, February 2-3, 2017.

#### **Manas Ghosh**

1. 'Akira Kurosawa's *Throne of Blood*: Adapting Shakespeare in Japan' at a seminar on 'Film and Literature' organized by Department of English and Department of Mass Communication, Acharya Prafulla Chandra College, New Barrackpore, West Bengal, August 14, 2016.
2. 'Encountering Reality in Iranian Cinema', a talk organized by Department of Journalism and Mass Communication and Cine Club of South Calcutta Girls' College, Kolkata, August 19, 2016.
3. 'In Defence of New Cinema Movement in India', lecture at the short course on 'Indian Cinema: Trends and Issues', organized by Bardhaman Chalachitra Charcha Kendra, Zila Parisad Auditorium, Burdwan, March 4, 2017.
4. 'Satyajit Ray's *Nayak* (1966)', lecture at a session to commemorate 50 years of *Nayak*, organized by Cine Guild, Bally, West Bengal, September 20, 2016.
5. 'New Latin American Cinema', a lecture at the Film Appreciation Course organized by Ministry of Information and Cultural Affairs, Govt. of West Bengal, Chalachchitra Satabarsha Bhavan, Kolkata, June 29, 2016.
6. 'Asian Cinema: PR China & Taiwan', a lecture at the Film Appreciation Course organized by Ministry of Information and Cultural Affairs, Govt. of West Bengal, Chalachchitra Satabarsha Bhavan, Kolkata, July 8, 2016.
7. 'New Iranian Cinema', at the Film Appreciation Course organized by Ministry of Information and Cultural Affairs, Govt. of West Bengal, Chalachchitra Satabarsha Bhavan, Kolkata, July 12, 2016.
8. Chaired the Academic Session VII at the International Seminar titled 'Of Conflicts and Landscapes: The Rhetoric of Performance and Visual Art in Canada' organized by Centre for Canadian Studies, Jadavpur University, Kolkata, 8 March, 2017.
9. Moderated the panel discussion on 'Cotemporary Chinese Cinema' organized by Kolkata International Film Festival, Nandan, November 14, 2016.

#### **Subhajit Chatterjee**

1. 'Early Cinema', 'Birth of Auteurs' and 'Japanese Cinema', three invited lectures delivered as resource person at Film Appreciation Course 2016 organized by Government of West Bengal at Chalachchitra Satabarsha Bhavan on June 30, July 8 & 9, 2016.
2. Chaired a session at the national seminar on 'Encountering World Cinema in India' organized by Department of Film Studies, Jadavpur University, November 3-4, 2016.

**3. B. Seminar/ Workshop/Conference/Symposium Attended:**

(Name of the Teacher, name of the Paper Presented, Name of the Seminar, Place, Duration)

**Moinak Biswas**

1. 'The Home and the Open', paper presented at Institute of Development Studies Kolkata, and Utrecht University, Netherlands, sponsored International seminar on 'Urban Futures and Urban Utopia in South Asian Megacities: Narrative, Play, Planning', IDSK, Kolkata, July, 2016
2. 'Bijan Bhattacharya in Film', paper presented at National Seminar commemorating the Centenary of Bijan Bhattacharya, Sahitya Akademi, Kolkata, January, 2017.
3. 'Rajnitikatar apasaran: Arter anchal theke tola duekti prasna', paper presented at ICSSR sponsored National Seminar on 'Rethinking Counter-Revolution', organized by Alochanachakra, January, 2017, at Hiralal Sen Memorial Hall, Jadavpur University.

**Abhijit Roy**

1. 'Indo-Pak Mediascape and the Curious Case of Zindagi TV', paper presented at the international conference on 'Cinema and Transnationalism in Pakistan and South Asia: Regional Histories', organized by 'South Asian Regional Media Scholars Network'. Lahore University of Management Sciences, Lahore, Pakistan (presented through Skype). 1 September, 2016.

**Madhuja Mukherjee**

1. 'Networks of Cinema in South Asia during 1920s-1940s', paper presented at the international conference on 'Cinema and Transnationalism in Pakistan and South Asia: Regional Histories', organized by 'South Asian Regional Media Scholars Network'. Lahore University of Management Sciences, Lahore, Pakistan (presented through Skype). September 2016.
2. 'Gangs of Wasseypur and Digital Recreations: Music, Memory, Noise', paper presented at the 'Sound and South Asia Conference', Centre for South Asian Studies, University of Michigan, Ann Arbor, October 2016.
3. 'Inside a TENT / Outside the box', a talk at the at Future Orbits Seminar organized by VisionMix and The Srishti Institute of Art, Design & Technology, a collateral project of Kochi-Muziris Biennale, January 2016.
4. 'Underbelly of a City: The toing and froing between amateur and art-house films', a talk at the *Video Vortex XI, Video in Flux: Art, Activism & Archives*, organized by The Srishti Institute of Art, Design & Technology, a collateral project of Kochi-Muziris Biennale, February 2017.

**Anindya Sengupta**

1. 'Decrepit Presences: Speculations on the Aging Bodies in Cinema', paper presented at UGC-Sponsored Two-day National Seminar titled 'The Body Speaketh: Interrogating Cultural Constructions of the Body', organized by Department of Comparative Literature, Jadavpur University and Department of English, Ramakrishna Mission Vidyamandir, Belur, Howrah, January 31, 2016.

**Shradhanjali Tamang**

1. Participated as a resource person in Nepali-Bangla and Nepali-English translation workshop on 'contemporary Indian Nepali Language writings 2000-2015', organized by

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Centre for Translation of Indian Literatures (CENTIL), Jadavpur University, June 20-24, 2016.

2. Participated as a resource person in Nepali-Bangla translation workshop on 'The Nepali Lahari-Sawai', organized by Centre for Translation of Indian Literatures (CENTIL), Jadavpur University, November 21-29, 2016.
3. 'Gender and Disability in Indian Nepali short Stories', paper presented at National Seminar on 'Imaging the Differently Abled: Reading and Translating Indian Short Stories', organized by Centre of Advanced Studies, Department of English, Jadavpur University, January 18-20, 2017.
4. Participated as a group leader (Nepali-Bangla/English) in a two-day International Winter School for Literary Translation, organised by the Centre for Translation of Indian Literatures (CENTIL), Jadavpur University, in collaboration with the British Centre for Literary Translation, University of East Anglia, and the Writers' Centre Norwich, Jadavpur University, January 30-31, 2017.
5. 'The Indigenous Tamba Tradition in Darjeeling and Sikkim', paper presented at International Conference on 'Darjeeling and the Eastern Himalayas: A Multidisciplinary Approach' organized by Salesian College Sonada, March 14-15, 2017.

#### **Manas Ghosh**

1. 'Films of Social Commitment: The Long 1930s in Chinese and Indian Cinema', paper presented at the international seminar on 'India and China in Emerging Asian Domain: The Road Ahead', organized by Netaji Institute for Asian Studies, School of Chinese Language in Kolkata and H. P. Biswas India-China Cultural Study Centre, Department of International Relations Jadavpur University, Kolkata, September 22-23, 2016.
2. 'Teaching Literature and Film: Methods and Approaches', a talk at the UGC Sponsored 7-day international workshop on 'Methodology of Teaching Bengali Literature at College/University Level', organized by Dept. of Education, Jadavpur University, Kolkata, January 25, 2017.
3. 'Perspectivalism in Cinema: Rules and Alternatives', paper presented at a State-level Seminar on 'Film and Literary Studies: An Interface' organized by Department of English, Bankura Christian College, Bankura, West Bengal, March 20, 2017.

#### **3. C. Seminar/ Workshop/Conference/Symposium Organized:**

(Name of the Teacher, Name of the Paper Presented, if any, Name of the Seminar, Place, Duration)

1. National seminar on 'Encountering World Cinema in India', November 3-4, 2016. Coordinators: Madhuj Mukherjee, Abhijit Roy and Manas Ghosh.
2. Lecture series on Indian Cinema by Prof. Ravi Vasudevan, Centre for the Study of Developing Societies, Delhi, under the UGC GDA – Travel, Seminar and Visiting Fellow Scheme (XII Plan). February 27-March 10, 2017.
3. Lecture series on Indian Cinema by Prof. S. V. Srinivas, School of Liberal Studies, Azim Premji University, Bangalore, under the UGC GDA – Travel, Seminar and Visiting Fellow Scheme (XII Plan). February 13-18, 2017.
4. 'New Film Modernism', an illustrated talk by Dr. Mark Betz, Reader in Film Studies, King's College, London, March 22, 2017

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5. 'Landscape, Art, Cinema, Data: New Historical Coordinates for Contemporary Media Cultures', an illustrated lecture by Dr. Kaushik Bhaumik, Associate Professor, School of Arts and Aesthetics, Jawaharlal Nehru University, New Delhi, January 20, 2017.
  6. 'Zombies are Us? Planetary Genres in Contemporary Bollywood', a lecture by Meheli Sen, Assistant Professor, Rutgers University, USA, January 11, 2017.
- 3. D. Orientation Courses/ Refresher Courses Attended:** (Name of the Teacher, Title of the Course, Duration, Place)

**Shradhanjali Tamang**

1. Attended the GIAN (Global Initiative of Academic Networks) course on 'Oral History and the Art of Listening' organized by Department of Comparative Literature, Jadavpur University, 9-16 November, 2016.
- 4. A. Books/Monographs etc. Published:** (Name of the Teacher, name of the BOOK, Name of the Publisher)

**Sanjoy Mukhopadhyay**

1. *Four Hundred Blows* (Annotated translation of screenplay), Saptarshi Prakashan, Kolkata, May 2016.
2. *Cinemar rupkatha*, Mandakranta, Kolkata, July 2016.
3. *Ogo maya ogo batayan*, Khowabnama, Kolkata, August 2016.

**Madhuja Mukherjee**

1. Editor, *Voices of the Talking Stars, The Women of Indian Cinema and Beyond*, Stree: Kolkata/ SAGE, India (January 2017).
- 4. B. Articles Published in Journals:** (Including National/International & Peer-Reviewed Journals)
- (Name of the Teacher, Name of the Articles, name of the Journal, date of Publication, Volume)

**Sanjoy Mukhopadhyay**

1. Article on Bikash Ray, *Aajkal Autumn Special Issue*, September 2016
2. Article on Moti Nandy, *Ei Samay Festival Issue*, September 2016
3. Article on Bijan Bhattacharya, *Bhashabandhan Festival Issue*, September 2016
4. Article on Hiralal Sen, *Shiladitya Festival Issue*, September 2016
5. Article on Bengali Cinema of 1950s, *Kalantar Festival Issue*, September 2016
6. 'Cinemar Galpo', *Dainik Basumati Festival Issue*, September 2016
7. 'Chhoto Chhobir Baro Katha', *Dainik Pratidin*, September 2016

**Moinak Biswas**

1. 'Bharatiya chhabi o pashchim pradakkhin', in Arindam Chakrabarti ed. *Bangalir Europe Charcha*, Kolkata: Anustup Prakashan, April, 2016
2. 'Kiarostamir bhuban' in *Pratirodher Cinema*, Vol 4: No 1, January, 2017
3. 'From Space to Location' in *Positions: Asia Critique*, vol. 25, no. 1, February, 2017, pp. 9-28.



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4. 'A Booklets Sequence', *South Asian History and Culture*, Volume 8, Issue 2, March, 2017.

#### Abhijit Roy

1. 'Ek asubho jatrapala', translation of 'An Ominous Operetta', article by Alok Rai, in *Bipanna samay: Barnabad, jatiyotabad, bakswadhinota o ajker bharot*, eds. Sarmistha Dutta Gupta and Trina Nileena Banerjee. Ebong Alap and Ebong Mushaira, December 2016.

#### Madhuja Mukherjee

1. "Nishobder rup: Prothom juger bhartiya chalachchitra o tar ekadhik path" in *Itihasye Janasanskriti, Parishare unish-bish satak* ed. Amitava Chatterjee. Gangchil: Kolkata, January 2017, pp. 59-68.
2. "Sounding Dystopia: Anurag Kashyap's Films and Relocation of Popular Tropes" in *Behind the Scenes: Contemporary Bollywood Directors and Their Cinema*, eds. Aysha Iqbal Viswamohan & Vimal Mohan John. New Delhi/ California/ London/ Singapore: Sage, 2017, pp. 185-214.
3. "Kangal Malsat er nabarupayan: Novel theke graphic novel, cinema r madhyome" in *Nabarun Bhattacharya: Monon o darshan* ed. Adway Chowdhuri and Arka Chattopadhyay. Aihik Prakashani: Kolkata, August 2016, pp. 395-400.
4. "War Cry of the Beggars: An Exploration into City, Cinema and Graphic Narratives" in *South Asian Popular Culture* 14. 1-2, 2016, pp. 73-87.
5. "Toward A New Frame for Regional Films: Manbhum Videos and the Other Side of (Indian) Cinema" in *Bioscope: South Asia Screen Studies* 7.1, 2016, pp. 58-79.
6. "Music, Sound, Noise: Interposition of the Local and the Global in Anurag Kashyap's *Gangs Of Wasseypur*" in *Music of Contemporary Indian Film*, ed. Jayson Beaster-Jones and Natalie Sarrazin, Routledge: New York, 2016, pp. 176-191.
7. "That Figure in The Dark: Of Melodrama, Noir and Multiplicity during 1950s" in *Indian Film Culture/ Indian Cinema*, ed. Gautam Kaul, Codex, Federation of Film Societies of India: Kolkata, 2016, pp. 116-136.
8. "Whispers of a Wild Cat" (based on the life and works of Sulochana nee Ruby Myers) in *First Hand, Graphic Non-fiction*, ed. Orijit Sen & Vidyun Sabhaney, Yoda Press, New Delhi, May 2016, pp. 175-183.

#### Anindya Sengupta

1. 'Bangla chhobitey asamapto sottor dashok', *Aneek*, Jan-Feb 2017
2. 'Shorirer chhobi, rajnitir shorir: Cinemar(A)sachetan rajniti niye kichhu bhabna', *Charbak*, April 2016.
3. Book Chapter titled 'Chnader asustho pandur alo: Nabarun Bhattacharyar godyo o tar sambhabyo cinematic', in *Nabarun Bhattacharya: Monon o darshan*, ed. Arka Chattopadhyay et al. Aihik Prakashani, September 2016.
4. Book Chapter titled 'Chirodin tomar aakash: Sobar deshoprem, aamar hallucination, koyekti lekha chhobi o ekti plague-er galpo', in *Nashta atmar bharat vision: Nishad Series 1*, ed. Surajit Sen, Nishad, August 2016.

#### Shradhanjali Tamang

1. Translated short story 'Landslide' (with Sayantan Dasgupta) in *Himal South Asian*, Jagadamba Press, Lalitpur, Nepal, September 2016, 244-254.

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### Manas Ghosh

1. Book Chapter titled 'Nation and Partition: Tagore Reinvented by Ritwik Ghatak', in K. L. Tuteja & Kaustav Roy (eds.) *Tagore and Nationalism*, Springer, New Delhi, pp. 325-335.
2. 'Iraner sanskritik aadhunikota: Kiarostami o onyanyoprosongo', *Pratirodher Cinema*, Vol.4, No.1, Feb. 2017.
3. 'Smriti, satwa, bhobisyat', a feature article in *Ei Samay* (Robibaroyari, p.4), December 4, 2016.
4. 'Shorir, sudhu shorir?', a feature article in *Ei Samay* (Robibaroyari, p.5), October 28, 2016.

### Subhajit Chatterjee

1. 'Towards a New Junk Aesthetics? : Narratorial Predicaments in Contemporary Alternatives in/to Bollywood', *Positions: Asia Critique* (Special Issue on Indian Cinema), volume 25, number 1, February 2017 , pp. 195-222.
2. "On Subjection and Authoritarian Power: The Cinema of Masaki Kobayashi", Kolkata International Film Festival Brochure, Govt. of West Bengal, November 11, 2017, pp. 163-164.

### 6. Major Achievements:

#### Moinak Biswas

1. Was commissioned to make a video installation for the 11<sup>th</sup> Shanghai Biennale. The work, titled 'Across the Burning Track' (2-screen, 4 audio channel, 25 mins.), was shown between November, 2016 and March, 2017. It is now preserved in the permanent collection of the Power Station of Art, Shanghai.

#### Madhuja Mukherjee

1. Participated in the Collateral Project of *Kolkata Arts Festival*, February, 2017, organized by CIMA Art Gallery. Mukherjee's project *House of Fire* was part of 'Shifting Narratives' programme curated by Manas Acharya, held at Gem cinema, Calcutta. It highlighted the many passages of the film *Sholay*, and public cultures. ([https://www.telegraphindia.com/1170218/jsp/opinion/story\\_136278.jsp](https://www.telegraphindia.com/1170218/jsp/opinion/story_136278.jsp))
2. Was selected for the German Federal Government's *Visitors' Programme* (February 2017) and participated in *Berlinale 2017* to develop her research projects and art practices.



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**HISTORY**

Phone : + 91- 33-2414-6962  
Int. : 2457-2281  
H.O.D.: Prof. Rup Kumar Barman  
E-mail : hod@history.jdvv.ac.in  
          hod.history@jadavpuruniversity.in  
Website : www.juhistory.org

**1. A. Courses Offered:**

<b>Name of the Course</b>	<b>Duration of the Course</b>	<b>Annual Intake</b>
B.A. Honours	3 years, 6 semester	55
M.A.	2 years, 4 semester	65
M.Phil	2 years, 4 semester	15
Ph.D (by coursework)		(as per UGC guidelines)

**1. B. Number of Faculty Members:**

Sanctioned post – 18      Currently- 16

The department at present has **15** full time faculty members and **1** faculty member is on lien and **2** post are vacant.

Name: Mahua Sarkar, Designation: Professor, Qualification: M.A., Ph. D., (J.U.)

Name: Ranjan Chakrabarty, Designation: Professor, Qualification: M.A. Ph.D. (J.U.)  
(Currently Vice-Chancellor, Vidyasagar University)

Name: Anuradha Roy, Designation: Professor, Qualification: M.A. (D.U.), Ph. D. (C.U.)

Name: Nupur Dasgupta, Designation: Professor, Qualification: M.A., Ph. D. (J.U.)

Name: Rup Kumar Barman, Designation: Professor, Qualification: M.A., Ph.D. (N.B.U.)

Name: Kaushik Roy, Designation: Professor, Qualification: M.A., Ph.D. (J.N.U.)

Name: Subhasis Biswas, Designation: Professor, Qualification: M.A., Ph. D. (J.U.)

Name: Sudeshna Banerjee, Designation: Associate Professor, Qualification: M.A. (C.U.),  
Ph. D (SOAS, London)

Name: Suchetana Chattopadhyay, Designation: Assistant Professor, Qualification: M.A.  
(J.U.), Ph. D. (SOAS, London)

Name: Maroona Murmu, Designation: Assistant Professor, Qualification: M.A, M. Phil.,  
Ph.D, (J.N.U.)

Name: Tilottama Mukherjee, Designation: Assistant Professor, Qualification: M.A., M.  
Phil. (J.N.U.), Ph. D. (Cambridge)

Name: Samir Das, Designation: Assistant Professor, Qualification: M.A.

Name: Chandrani Banerjee Mukherjee, Designation: Assistant Professor, Qualification:  
M.A, Ph. D. (B.H.U.)

Name: Samarpita Mitra, Designation: Assistant Professor, Qualification: M.A. (Cal),  
Ph.D. (Syracuse University)

### **Annual Report 2016-17**

Name: Debajit Dutta , Designation: Assistant Professor, Qualification: M.A., Ph.D. (NBU)

Name: Utsa Roy, Designation: Assistant Professor, Qualification: M.A. (Cal), Ph.D., (Pennsylvania State University)

#### **2. A. Area of Research Activities:**

The Department received the University Grants Commission's prestigious Special Assistance Programme in 2005 for Research on Environmental History. The Programme has been upgraded to DSA- Phase I. This is in effect from 01.04.2015.

Thrust area: **Environmental History**

Related thrust area: **Social History of Science and Technology and Sanitation.**

#### **2. B. Seminar/Conference Organized:**

a) Jadunath Sarkar Memorial Lecture on 'Evolving Contours of medieval Indian History' by Prof. Harbans Mukhia, 24.02.2017.

b) International Seminar on 'Hegemony Resistance & Cultural Artifacts: India in the late 19<sup>th</sup> and 20<sup>th</sup> centuries' 7<sup>th</sup>- 8<sup>th</sup> March, 2017.

#### **Faculty Profiles: Professors**

#### **PROF. MAHUA SARKAR**

**3. (A) Area of Research Activities:** Coordinator, UGC. SAP. DSA-1 on History of Environmental concerns in South Asia: Policies, Practices and Implementation

**(B) Major Research Project:** a) individual UGC Project on Music and the alternative methodology of Environmental History b) individual UGC Project on An Environmental History of North Bengal

#### **4. (A) Invited Lectures Delivered/ Session Chaired: International-6 National-5**

1. Invited to present a paper on 'Disease, Environment and the colonial state in the 24<sup>th</sup> Conference of European Association of South Asian Studies, Warsaw, Poland, July, 2016.
2. Invited to present a paper on 'Bengali Theatre and the Actresses of Bengal 1795-1876' in the 24<sup>th</sup> Conference of European Association of South Asian Studies, Warsaw, Poland, July, 2016.
3. Invited to deliver a lecture on 'Orientalism in India and China' in the International Seminar on 'India and China in Emerging Asian Domain: The Road Ahead' on September 22, 2016, organized by the Netaji Institute for Asian Studies, The School of Chinese Language, Kolkata and H.P. Biswas India-China Cultural Study Centre, Jadavpur University, Kolkata.
4. Invited to deliver a lecture on 'Women Jhumurias and the Methodology of Environmental History' in the International Seminar on 'The Natural History Heritage of India' on 1st October, 2016, in the Indian Museum, organized by the Botanical Survey of India, Industrial Section of Indian Museum, And the Centre for World Environmental History, University of Sussex, England.
5. Invited to deliver a lecture on 'Eco-feminism and a history from below: Forests and the Women Dancers of Purulia' in the International Seminar on "Forests, Sacred Groves and Environmental Heritage of India,' on 30<sup>th</sup> March, 2017, in the Indian Museum,

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organized by the Botanical Survey of India, Industrial Section of Indian Museum, And the Centre for World Environmental History, University of Sussex, England.

6. Chaired a session in the International Seminar on Hegemony Resistance and Cultural Artefacts: India in the late 19<sup>th</sup> and 20<sup>th</sup> centuries, Organized by the Department of History, Jadavpur University, on 7-8 March, 2017.

#### **National-5**

1. Invited to deliver the keynote address on 'Women in Twentieth Century Bengal' in a National Seminar on 'Gender, Culture, Politics: Bengal in the Twentieth Century- Open Distance Initiative' on 24<sup>th</sup> September, in Netaji Subhas Open University, Kolkata.
2. Invited to deliver the keynote Address on "Environmental History of North Bengal" in a National Seminar on 'Society, Economy and Environment of Tista-Brahmaputra Valley: a Changing Scenario" on 3<sup>rd</sup> September, 2016, in Netaji Subhas Mahavidyalaya, Haldibari, Cooch Behar, West Bengal.
3. Invited to deliver the keynote address on 'Environmental History of the Jungal Mahals' in Subarnarekha Mahavidyalaya, Gopiballavpur, West Medinipur, on 4<sup>th</sup> October, 2016.
4. Invited to deliver the Annual Suchintan Lecture on 'Jhumur and the women performers of Chotanagpur' in Suchintan Society on 26<sup>th</sup> June, 2017.
5. Invited to deliver Hiralal Gupta Memorial Lecture on "Eco-feminism and the Adivasi women of Chotanagpur" organized by the Institute of Historical Studies, Kolkata on 10<sup>th</sup> February, 2017.

#### **(B) Seminar/Workshop/Conference/Symposium Attended:**

1. Presented a paper on 'The History of Pollution in Calcutta' in the Annual Conference of Paschim Bangal Itihas Samsad, Basanti Devi College, Kolkata, 25<sup>th</sup> January, 2017.
2. Presented a paper on 'The Historical Significance of Tagore's Songs' In the Annual Conference of Indian History Congress, Trivandrum, Kerala, and 29<sup>th</sup> December, 2016.
3. Introduced the theme as the Coordinator of the International seminar on 'Environment and the Adivasi World', 10<sup>th</sup> February, 2016.
4. Introduced the theme as the Coordinator of the International seminar on Recent Trends In Environmental History: Narrating Biodiversity Loss In India' on 28<sup>th</sup> February, 2017.
5. Delivered two lectures on "Nation and Higher Education: illustrations from Nineteenth Century Bengal" on 16<sup>th</sup> March, 2017, in the Winter School of the Faculty of Arts, Jadavpur University.

#### **(C) Seminar/Workshop/Conference/Symposium Organized: 1**

Organized the International Seminar on Recent Trends in Environmental History: Narrating Biodiversity Loss In India in Department of History, Jadavpur University, on 28<sup>th</sup> February, 2017.

#### **(E) Orientation Course/Refresher Course Organized:**

Coordinated Three weeks Interdisciplinary Winter School in Faculty of Arts, Jadavpur University, 10-31 March, 2017.

#### **5. (A) Books/ Monographs etc. Published:**

1. Environment and the Adivasi World, ed. Manohar, New Delhi and Alphabet Books, Kolkata, 2017.

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2. A. Collage of Environmental History, ed. Manohar, New Delhi and Alphabet Books, Kolkata, 2017.

#### **(B) Articles Published in Journals: 4**

1. Time, Nature, Property Rights: History of the Jhumur Songs in India in Mahua Sarkar ed. Environment and the Adivasi World, Manohar and Alphabet Books, New Delhi, 2017.
2. An Environmental History of North Bengal, in Mahua Sarkar ed. A Collage of Environmental History, Manohar and Alphabet Books, New Delhi, 2017
3. Trade, Religion, Sustainability: Historical Perspectives from Buddhism and Jainism, in AANCEB 2017, India@2030: Sustainable Development Goals and Business Opportunities: Policy, Practice and Path Forward, Alumni Association, NCE Bengal and Jadavpur University, Mumbai Branch.
4. Banglay Islamer Misradharmiyotain Itihaser Pathe Pathe, Aniruddha Roy Felicitation Volume, Progressive Publishers, 2017.

#### **6. Collaborative Programmes:**

Collaboration with University Teknologi PETRONAS Kuala Lumpur, Malaysia, as the Coordinator of the UGC DSA-1 SAP, Dept. of History, JU, 2016 to have regular exchange of research programmes. Accordingly, a paper published in the edited volume of DSA, History, J.U., written by three scientists from PETRONAS, 2017.

#### **7. Other Achievements:**

1. Served as the Dean, Faculty of Arts, Jadavpur University.
2. Member, Undergraduate Board of Studies, Calcutta University
3. Member, Board of Studies, School of Social Sciences, Jawaharlal Nehru University, New Delhi, 2015-till date.
5. Member, Executive Committee, Institute of Historical Studies, Kolkata,
6. Member, Executive Committee, Paschim Banga Itihas Samsad, Kolkata
7. Member, Doctoral Committee, Examination Committee, Journal Committee Dept. of History, Jadavpur University, 2014 and continuing.
8. Member, Advisory Board for Award of Medals/ Plaques/ Lectureships, the Asiatic Society, Kolkata

Number of Ph.D Awarded—3

Number of PH.D Submitted—1

Number of Ph.D Enrolled—8

Number of M.PHIL Awarded—3

Number of M.Phil Enrolled—2

#### **PROFESSOR RANJAN CHAKRABARTI**

At present the Vice Chancellor of Vidyasagar University, Midnapore

#### **PROF. ANURADHA ROY**

##### **3. (A) Area of Research Activities:**

Intellectual and cultural history with special reference to modern India, deep history

**(B) Major Research Project:**

Editing a volume titled *Kolkata in space, time and imagination* jointly with Melitta Waligora – a joint research project of Humboldt University and JU

**4. (A) Invited Lectures Delivered/ Session Chaired:**

- i. 'Samajbodher Shabdojabdo' (The problems with terms used for our social understanding), a paper presented at a seminar organized by the BangiyaItihas Samiti, Kolkata, in honour of Professor Binay Bhushan Chaudhuri at Scottish Church College, on 7 May 2016.
- ii. Talk at workshop on school-level history syllabus organized by Pashchim Banga Itihas Samsad, at IDSK, 25 and 26 June.
- iii. Lecture on Feminism (along with conversation with Annunciacion Carrera de la Red) at Valladolid University, Spain, on 23 September 2016.
- iv. Lecture on feminism and the political situation in India (along with dialogue with Virginia Fucuso), University Carlos III, Madrid, Spain, 26 September 2016
- v. Chaired a session of the birth centenary symposium on Bijan Bhattacharya, the noted thespian, SaityaAkademi, 5 January 2017, Kolkata,
- vi. Chaired the Biplabi Satin Sen Memorial lecture organized by Dept. of History, Jadavpur University in collaboration with Satin SenJanmashatabarshaUdjapanSamiti, 31 January 2017 (The lecture was delivered by Prof. SuklaSanyal)
- vii. 'When symbolism becomes a neurological disorder: Nationalism at a critical historical juncture', paper presented at the annual seminar of Dept. of History, JU, on the theme 'Hegemony, Resistance and Cultural Artifacts: India in the late 19th and 20th centuries', held on 7 & 8 March, 2017
- viii) Chaired a session at the annual seminar of Dept. of History, JU, on the theme 'Hegemony, Resistance and Cultural Artifacts: India in the late 19th and 20th centuries', held on 7 & 8 March, 2017. The name of the session: 'Hegemonic constructions and ideological resistance'.
- ix. 'Syllabus'-e Singur', participation in a talk show on the TV channel 24 Ghanta, early September
- x. Participation in a discussion (Neelima Ghosh Dastidar Memorial Lecture) on the theme 'Is the Bengali middle-class mentality facing a crisis?' organized by Boudha Dharmankur Sabha, Kolkata, 28 April 2017.

**(B) Seminar/Workshop/Conference/Symposium Attended:** Attended a few, but haven't kept record.

**5. (A) Articles Published in Journals**

- i. 'Boi-er Cheye Boro' (Greater than Books), in *Parikatha* (Special issue on book-reading), September 2016
- ii. 'Asok Sen: Swapna o Sandhan', *Alochanachakra* (Special issue on Asok Sen a noted scholar and distinguished personality in the cultural field of Bengal), January 2017. ISSN: 2231-3990

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- iii. 'Samajbodher Shabdojabdo' (A word game in our social consciousness), *Itihaser Boichitrya: Adhyapak Binay Bushan Chaoudhury Sammanana Grantha* edited by Gautam Neogy, Nirban Basu and Soumitra Sreemani, Bangiya Itihas Samiti, Kolkata, 2017.
- iv. 'Agami Prithibi?' (The Future World?- a take on the youth culture that seems to be developing on the basis of a kind of globalization of the mind), *Parikatha*, January, 2017.
- v. 'Madhyabitter Itihas theke Madhyabittatar Itihas: Adhunik Bharater Prekhsate' (From the history of middle-classes to a history of middle-classness: In the context of Modern India), *Itihas Anusandhan* - 31, January 2017 (Address as the sectional president of Modern India at the annual conference of Pashchim Banga Itihas Samsad, January 2016. ISBN978-81-910874-8-2
- vi. 'Singing their way towards a Better World: People's Song Movement in late-Colonial and Early-Independence Bengal', *The Progressive Cultural Movement: A Critical History*, January 2018. ISBN: 978-93-80536-60-6
- vii. 'Bangali Madhyobitto Manasikata ki aaj Biponno?', article in the bimonthly journal *Arekrakam* (edited by Asok Mitra) 1 July, 2017.

#### **6. Collaborative Programmes:**

See above: Editing a volume on the city of Calcutta as a joint research-cum-publication project of Humboldt University and JU

#### **7. Major Achievements:**

- i. Honorary Visiting Professorship at Institute of Development Studies Kolkata, March – May, 2016
- ii. Visited Hay Festival, Segovia, Spain (23-25 September) as part of the delegation team from India (India was the focal theme of the festival this year), nominated by SahityaAkademi and invited by British Council.
  - a. Participation in a discussion on the linguistic, literary and other diversities of India with Peter Florence (director of Hay festival), Kiran Nagarkar and Sethumadhavan, at Capitular, 23 September 2016
  - b. Conversation with Sethumadhavan and Mar Sancho (Spanish poet) at Palacio Quintanar, 24 September 2016
- iii. Awarded the 'Best researcher Prize' 2017 by Bauddha Dharmankur Sabha, Kolkata

### **PROF. NUPUR DASGUPTA**

#### **2. (A) Area of Research Activities:**

Ancient Indian History and Archaeology  
Historiography of Ancient India  
History of Science, Technology & Medicine

#### **Teaching: UG Courses: 1**

- Early History of India up to the Thirteenth Century A.D.

#### **PG Courses: 4**

- History of Southeast Asia: Colonial and Post-Colonial Burma, Malaysia and the Philippines.



### **Annual Report 2016-17**

- Early Indian Political Processes, Institutions and Thoughts.
- Material Culture, Progress and the Intellectual Milieu in Early India.
- Social History of Science and Technology in India: the Pre colonial phase.

#### **M.Phil Courses: 2**

- Methodology of Research in Ancient Indian History
- Early History of India: Methods and Interpretations in Research.

#### **Ph.D. Course: 1**

- Methodology of Research in Ancient Indian History

#### **Research Supervision: Ph. D**

Awarded: 1

Submitted: 1

Ongoing: 4

#### **M. Phil**

Ongoing: 1

#### **(B) Research Project:**

1. Submitted the Research Project on “Health, hygiene and the inner domain in late 19<sup>th</sup> to early 20<sup>th</sup> century Bengal”, funded by UGC – DSA of the Department of History, 2016 – 2017.

#### **4 (A) Invited Lectures Delivered/ Session Chaired:**

##### **Invited Lectures Delivered**

1. Delivered lectures to the Post Graduate Class in the Department of South and South-East Asian Studies, University of Calcutta on 16<sup>th</sup> April, 2017. Lecture on: “History of the Philippines: Pre-colonial period, A look into past settings, customs, Practices and Culture.”
2. Delivered lectures to the Post Graduate Class in the Department of South and South-East Asian Studies, University of Calcutta on 28<sup>th</sup> April, 2017. Lecture on: “Corridors & Borders, Contacts & Communications: The Assam-Myanmar-Yunnan Story.”
3. Delivered the invited endowment lecture: **The Adhir Chakrabarti Memorial Lecture**, Jointly held by the Adhir Chakrabarti Memorial Trust and the Department of Ancient Indian History and Culture, University of Calcutta, on “Inception of Urban Space and Urbanization in early Historic Middle Ganga plain: Perspectives and Problems.”
4. Invited lecture delivered for the Ph. D M.Phil Course on **Research Methodology of Sanskrit Studies**, organized by the Department of Sanskrit, Jadavpur University, 30<sup>th</sup> September. Paper on: “Sanskrit Literature and History: Issues in Research Methodology.”
5. Invited Resource Person at the Five day Workshop on **History of Science & Technology with special reference to India: Ancient to modern Times**, held between 20<sup>th</sup> and 21<sup>st</sup> March, 2017, organized by the Asiatic Society. Delivered a Lecture on “Tracing the Roots of Chemistry in Ancient-Medieval India”, on 22<sup>nd</sup> March, 2017.



**Sessions Chaired:**

1. Chaired a session at the UPE II, Phase II programme of India Looking East Seminar on **Lineages of Interactions: India, South-east Asia and east Asia**, Organized by the AIHC, Archaeology and History Departments, CU, On 19<sup>th</sup>& 20<sup>th</sup> January, 2017. (On 19<sup>th</sup>).
2. Chaired a Session at the International Seminar on **Recent Trends on Environmental History: Narrating Biodiversity Loss in India**, 28<sup>th</sup> Feb, 2017, organized by the UGC –DSA-1, SAP, Department of History, Jadavpur University.

**4. (B) Seminar/Workshop/Conference/Symposium Attended and Papers Presented:**

1. Participated in the Two Day National Seminar on **Reconstructing History through museum and living issues of archaeology**, 22<sup>nd</sup>& 23<sup>rd</sup> august, 2016. Presented a paper: "Museums and living archaeology: situating the Copper-Bronze Technology of Bengal."
2. Presented a Paper at the Two Day National Workshop on the **Methodology of Ancient Indian History Writing: Epigraphy as a Tool and Source** on 14<sup>th</sup>& 15<sup>th</sup> September, 2016 under the DSA Programme of the Department of History, Jadavpur University in collaboration with the Asiatic Society, Kolkata. Paper on "B/ordering the landscape: Spatial Cognition in Epigraphic Records of the Chandellas."
3. Conference on **Environment & Health: Colonial and post-colonial perspective in India**, organised by the Wellcome Trust, Calcutta University Centre, on 13<sup>th</sup> Sept., 2016. Presented a paper on: "From Hills and Vales to the Bazaar: Survey of the Medicinal plants of South Asia in the early 19<sup>th</sup> century."
4. UGC sponsored National Seminar on **Situating Sources of Indian History**, organized by Fakir Chand collage, Diamond Harbour in Collaboration with the Corpus Research Institute, Kolkata, held on 23.09.2016. Delivered a paper on "Literary Sources of Ancient India: Articulating Antiquity."
5. Participated in the Eighth Biennial Conference of IAAPS in collaboration with the Department of Geopolitics and International Relations, Manipal University, held between November 20-22, 2016. Presented a paper on "Bazaar Medicine: Encounters between Western Medicine and Indigenous Botanical Drugs in Colonial India."
6. Participated in the UGC sponsored Two Day National Seminar on **India: The Global Action of the Indian Ocean: Perspective and Challenges**, 15<sup>th</sup>& 16<sup>th</sup> December, 2016. Organized by Department of History and Political science, The Bhawanipur Education Society Collage, Kolkata, collaboration with IAAPS. Presented a paper on "The Making of British Malaya: Economy, Ethnicity and Nationhood on the Rise of a Colonial World with special reference to the India Diaspora".
7. Participated in the Three Day International Conference on **Towards a New Urban History: Identity and Specialty on Ports of Trade c.100- c.1850**, organized by the Asiatic Society, Kolkata, on 2<sup>nd</sup>-4<sup>th</sup> January, 2017. Presented a paper on: "Health concern, Medical Substances and Exchange Network in Early colonial Settlements: Exploring Dimensions of the fledgling Urban Experience in Medical Literature (18<sup>th</sup>& 19<sup>th</sup> centuries."
8. Participated in the Three-Day International Seminar on **Persian and Sanskrit as shared Heritage and Cross Cultural & Historical Connection between India,**

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**Iran and Central Asia**, organized by Department of Persian Guwahati University in collaboration with the Department of Arabic and Persian, Cotton College, Guwahati, held between 9<sup>th</sup> to 11<sup>th</sup> February, 2017. Presented a paper on “Knowledge beyond Boundaries: Transmission of Indian Medical Literature and Interaction with the Perso-Arabic World”.

9. Participated in the UGC Sponsored International Seminar on **Many Faces of Nationalism and Pluralist Tradition in Indian Subcontinent** organized by the Vidyasagar Centre of Indological Studies, RabindraBharati University, in association with the History Department, RabindraBharati University, on 16<sup>th</sup> & 17<sup>th</sup> Feb, 2017. Presented a paper on: “Looking for the Idea of Nation in Ancient India: Exploring Historical Evidence”.
10. Participated in the Two Day National Seminar on **Literature and Inscriptions: texts and Contexts**, UGC, CAS- Sanskrit (Phase II), JU, 21<sup>st</sup> & 22<sup>nd</sup> March, 2017. Presented a Paper On “Tracking the crucible: Exploring the Historical Context of an Alchemical Text”, on 21<sup>st</sup> March, 2017.

#### 4. (C). Seminar / Workshop/ Conference / Symposium Organised:

1. Organized a Two Day National Workshop on the **Methodology of Ancient Indian History Writing: Epigraphy as a Tool and Source** on 14<sup>th</sup> & 15<sup>th</sup> September, 2016 under the DSA Programme of the Department of History, Jadavpur University in collaboration with the Asiatic Society, Kolkata.
2. Joint Coordinator Winter School Programme of the Faculty of Arts, Jadavpur University, on **Nation and Higher Education**, from 10<sup>th</sup> -31<sup>st</sup> march, 2017.

### PUBLICATIONS

1. Book: (edited), *Methodologies of Interpreting the Ancient Past of South Asia: Studies in Material Culture*, Jointly edited with Pranab Kumar Chattopadhyay, Delhi, Sharada Publishing House, 2016. ISBN: 978-93-83221-07-3.

#### 2. Articles

1. “An Obscure Context of Early Rāḍha Bengal: Evidence from Jain Literature”, *Pratna Samiksha*, New Series, Vol-7, 2016, p 1-21., ISSN 22297979.
2. “Varna Pratha: Itihaser Bibaran, Vivartan O Nirman”, Ratnabali Chattopadhyay and Susnata Das, eds., *Itihaser Pathe Pathe*, Professor Aniruddha Ray Felicitation Volume, Kolkata, Progressive Publishers, 2016, p. 138-159, ISBN 978-81-8064-224-1.
3. “Special Ceramics in the Harappan Culture: History of a Technology derived from Archaeological Science”, Nupur Dasgupta and Pranab Kumar Chattopadhyay, eds, *Methodologies of Interpreting the Ancient Past of South Asia: Studies in Material Culture*, Sharada Publishing House, Delhi, 2016, p.127-151.
4. “Faith, Healing and Serpent Goddesses: Exploring the Threshold between the Ritual and the Medical in the Cults of Jāṅguli - Manasā”, *Journal of Bengal Art*, Vol-21, 2016, p.25-36, ISSN 1607-1344.
5. “Of Pleasure, Power and Piety: Uses and Perceptions of Gardens and managed Floral Spaces in Early India”, *Journal of South Asian Studies*, Vol-4, No-3, (2016), 109-122, ISSN: 2307-4000 (online), 2308-7846 (print).

**PROF. RUP KUMAR BARMAN**

- 3. (A) Area of Research Activities:** Modern Indian History, Environmental History , Dalit Studies , Human Rights and International Relations

**(B) Major Research Project:** Individual

***Changing nature of Caste in Post-colonial India: A Study on the Scheduled Caste Communities of West Bengal***, Indian Council of Social Science Research, New Delhi (F.No. SC-16/2014-15/ICSSR/RPS Dated: 28<sup>th</sup> January 2015), Total amount Rs. 190000.00

**4. (A) Invited Lectures Delivered/ Session Chaired:**

1. Delivered a talk titled Forced Migration and Global Terrorism A Recent Trend UGC-HRDC Orientation Programme, Jadavpur University, Kolkata, on 16th June 2016.

**(B) Seminar/Workshop/Conference/Symposium Attended:**

1. Paper titled *Problem of identity in Plural Society: Dalit Versus Sub-caste: A Study on the Scheduled Castes communities of West Bengal* will be presented to the International Conference on *Sociology of Religion in A Pluralistic Society* from 7/4/2016 to 9/4/2016 to be organized by the Centre for Study of Religion and Society, Jadavpur University, Kolkata in collaboration with the Lancaster University, England.
2. Paper titled Partition and the Margins: Reflections on the impact of the Partition on the Scheduled Castes of Bengal presented to the National Seminar on *Partition: Its Trauma and triumph*, 03-04 August 2016, Derozio Memorial College , Kolkata .
3. Paper Titled '*Caste, Sub-caste and electoral mobilization: The Scheduled Castes of West Bengal in assembly elections from 1937 to 2016*' was presented to the International Seminar on Social Stratification and Political Transformation: Rethinking Indian Democracy, Department of Political Science, Bankura University, Bankura, November 10-11, 2016.
4. Paper titled '*Right-Left-Right: The Scheduled Castes in the Assembly elections in West Bengal*' was presented to the International Seminar on 'Hegemony, Resistance, and Cultural Artefacts: India in the late 19<sup>th</sup> and 20<sup>th</sup> centuries'. Dated 7-8 March, 2017, Department of History, Jadavpur University,, Kolkata-700032 .
5. Paper titled '*Partition, Forced Migration and the hosts: A study on the impact of partition of Bengal (in 1947) on the hosts*' was presented to the UGC sponsored International Seminar on " Partition and its Aftermath: In Retrospect" on 22<sup>nd</sup> March, 2017, Department of History, Rabindra Bharati University, Kolkata .

**5. (A) Articles Published in Journals:**

1. 'Yes! The Scheduled Castes Can Write: Reflections on the creative and assertive writings of the Scheduled Castes of Colonial Bengal', *Contemporary Voice of Dalit*, a peer reviewed journal of the Sage Publications, 8(1)2016) 1-15.
2. Dalit Versus Sub-caste : A Study on the problem of identity of the Scheduled Castes of West Bengal , *Journal of People's History and Culture* , Vol.2, No.1 (June 2016), pp.7-18.
3. Barnagata Bahutabad O Bharatiya Samajer Jatpat, *Antarmukh*, Vol.6, No 1, July-September (2016 ), pp.50-77.

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4. *Tribal Identity and the nature: Changing Identity and Nature worship of the Koch-Rajbanshis of Sub-Himalayan Assam and Bengal*” in Mahua Sarkar (ed): *Environment and the Adibashi World*, (Kolkata, Jadavpur University and Alfabeta Books, 2017), pp 102-132.
5. From Political Bargaining to electoral Slavery: Reflections on the Political impact of Partition of India on the Scheduled Castes of Bengal, in MahuyaBhaumik and AnjonaChattopadhyay (eds): *Partition: Diverse Dimensions* , (Kolkata , Rachayeeta , 2016), pp.33-60.
6. Right-Left-Right: The Scheduled Castes in the Legislative Assembly Elections in West Bengal from 1952 to 2016, *The Mirror* , ISSN No 2348-9596, Vol-3 (2016), pp 1-16.

#### **7. Major Achievements:**

- (i) Member, Board of Studies, Department of History, Raiganj University, Raiganj
- (ii) Member, UG Board of Studies, Netaji Subhas Open University, Kolkata

### **PROF. KAUSHIK ROY**

#### **3. (A) Area of Research Activities: Military History of Asia**

#### **4. (B) Seminar/Workshop/Conference/Symposium Attended:**

1. From Kut to Mosul: Lessons Learnt by the Indian Army in Mesopotamia, 1914-1918, Paper presented at the Royal Military Academy Sandhurst in The Great War in the Middle East 1911-23 Conference, 20 April 2016.
2. The Colonial Legacy and National Security, paper presented at the conference on The Oxford Handbook of India's National Security held on 22-23 July 2016 at the Center on American and Global Security at Indiana University-Bloomington, USA.
3. Colonial Naval Warfare and Present Day Geopolitics, Paper presented at Dilli Seminar, 2016 at INA Ezhimala, Kerala on 13 Oct. 2016.
4. Peasants, Tribes and the Colonial Indian Army, Paper presented at the National Seminar titled Peasants and Tribes in Indian History: Colonial Experiences held at Raiganj University on 16 March 2017.

#### **5. (A) Books/ Monographs etc. Published:**

1. *Sepoys against the Rising Sun: The Indian Army in Far East and South-East Asia, 1941-45* (Leiden/Boston: Brill, 2016).
2. Kaushik Roy and Sourish Saha, *Armed Forces and Insurgents in Modern Asia* (London/ New York: Routledge, 2016).
3. *India and World War II: War, Armed Forces, and Society, 1939-45* (New Delhi: Oxford University Press, 2016).

#### **(B) Articles Published in Journals: (Including National/International & Peer-reviewed Journals)**

1. 'Indian Society and the Soldier: Will the Twain ever Meet?', in Harsh V. Pant (ed.), *Handbook of Indian Defence Policy: Themes, Structures and Doctrines* (New Delhi/ London/New York: Routledge, 2016), pp. 64-75.
2. 'Artillery of the Army in India in World War I', in Sanders Marble (ed.), *King of Battle: Artillery in World War I* (Leiden/Boston: Brill, 2016), pp. 299-323.

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3. 'Religion in the Sepoy Army of British India', in Torkel Brekke and Vladimir Tikhnov (eds.), *Military Chaplaincy in an Era of Religious Pluralism: Military-Religious Nexus in Asia, Europe, and USA* (New Delhi: Oxford University Press, 2017), pp. 185-201.

### **7. Major Achievements:**

Member of INSA Research Council, Global Fellow of Peace research Institute Oslo (PRIO), Norway and referee of various journals and publishing houses Like Oxford University Press, Routledge, *Modern Asian Studies*, *International Area Studies Review*, etc.

## **PROF. SUBHASIS BISWAS**

### **Dean, Faculty of Arts, Jadavpur University**

#### **4. (A) Area of Research Activities:**

Environmental History of South Asia

#### **5. (A) Invited Lectures Delivered/ Session Chaired:**

1. Chaired a Session in a panel on Adivasi History in an international conference held in Jadavpur University held in Jadavpur in April, 2016.
2. Chaired a Session on 'History of Marginal Communities in South Asia' in the international conference of European Association of Asian Studies held in Poland in July, 2016.
3. Presented a paper and chaired a session in Bi-Annul Conference of Bangladesh Association of Historical Studies held in Dhaka in March, 2017.

#### **(B) Seminar/Workshop/Conference/Symposium Attended:**

Attended European Association of Asian Studies conference held in Poland in July, 2016.

#### **(C) Seminar/Workshop/Conference/Symposium Organized:**

Organized an international seminar on 'Recent Trends in Environmental History' in the Department of History, Jadavpur University in February, 2017.

#### **(E) Orientation Course/Refresher Course Organized:**

Organized an inter-disciplinary Winter School in the Faculty of Arts, Jadavpur University in March, 2017.

#### **6. (B) Articles Published in Journals: (Including National/International & Peer-reviewed Journals)**

Paper published on 'Christian Missionaries and the tribal world' in an edited volume by Manjari Basu from Naba Nalanda Mahavidyalaya in 2016.

#### **(C) Articles Published in Edited volume:**

1. Paper published on Toto forest identities in a book edited by Prof. Mahua Sarkar titled, 'Environment and the Adivasi World' from Alfabeta Books in 2017.
2. Paper published on Indian Forests: Looking through the European Literary Expressions in a book edited by Prof. Mahua Sarkar titled, 'A Collage of Environmental History' from Alfabeta Books in 2017.

#### **7. Collaborative Programmes:**

Principal Investigator of an International Collaborative programme on Global Climate change between University of Patronas, Malaysia and Jadavpur University.



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**8. Major Achievements:**

Teaching Environmental History in Post Graduate Level in two semesters and two special paper on American History.

**Ph.D Awarded during 2015-16: 2**

**M.Phil Awarded during 2015-16: 3**

**M.Phil Awarded during 2016-17: 3**

**Associate Professors**

**DR. SUDESHNA BANERJEE**

**1. Courses Offered in the Department by the Faculty Member during 2016-17**

**Name of the Course -**

- A. Methodology (course at the MPhil/PhD Course Work level)
- B. The 20<sup>th</sup> Century World: Global Capitalism and its Contestations (course at the master's level)
- C. Economic Changes in Colonial India: North-Eastern India/North-Western India/Southern India/Western India (course at the masters' level)
- D. The Transformation of Europe, 1350-1650 (undergraduate honours course).

**2. Duration of the Courses—**

- A. July-December semester 2016
- B. July-December 2016
- C. January-July 2017
- D. January-July 2017

**3. Research Supervision by the Faculty Member:**

**PhD supervision completed and degree awarded in 2016: 1 (one)**

**PhD supervision completed and thesis submitted in March 2017: 1 (one)**

**PhD supervision (ongoing) in 2016-17: 4 (four)**

**MPhil supervision ongoing in 2016-17: 1 (one)**

- 4. Area of Research Activities:** Social history of modern India with special emphasis on urbanity, domesticity, the environment, women and gender, cultural identities, displacement, marginality and the afterlife of Partition of India.

**6. A Invited Lectures Delivered/Chaired :**

- i. 'Silence, History, Archives' delivered on 17 April 2016 as a special lecture at the workshop titled 'Cultural Politics, Identities and Gender', organized by the School of Women's Studies, Jadavpur University from 6 to 17 April, 2016.
- ii. Chaired the session titled 'National Science and Colonial Science' at the international seminar on *Hegemony, Resistance, and Cultural Artefacts: India in the late 19<sup>th</sup> and 20<sup>th</sup> Centuries* organized by the Department of History, Jadavpur University on 7-8 March 2017.
- iii. Delivered the keynote address at a seminar on *Religion, Society and Feminism in the Twenty-first Century* organized by the Department of History, Loreto College, Kolkata, on 30 January 2017.

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- iv. Chaired the 19<sup>th</sup> Shahid Pritilata Waddedar Memorial Lecture jointly organized by the School of Women's Studies, Jadavpur University and Biplabtirtha Chattagram Smriti Sanstha and delivered by Professor Ritu Sen Chaudhuri on 'Caste-Gender-Sexuality System: A Re-turn to Ambedkar' on 15 March 2017.

#### **B Seminar / Workshop/ Conference Attended / Presented Papers:**

Presented a paper entitled 'The mobile threat to the fixed nation: walls, women and wayward vehicles, Calcutta 1880s to the 1940s' at the international seminar on *Hegemony, Resistance, and Cultural Artefacts: India in the late 19<sup>th</sup> and 20<sup>th</sup> centuries* organized by the Department of History, Jadavpur University, on 7-8 March, 2017.

#### **D. Refresher Courses /Orientation Courses Attended:**

1. Delivered two lectures as resource person at the refresher course on Women's Studies organized by the Academic Staff College, Burdwan University between 1 June and 21 June 2016.

#### **4. A. Books / Monographs etc Published :**

1. 'The ideology of the family in Renaissance Europe', in Anuradha Chatterjee, Suparna Ghosh and Srijita Chakravarty (eds.), *Rethinking the Renaissance*, Loreto College, Kolkata, 2017, ISBN 81-85861-59-52, pp. 165-179.
2. 'Muck on the Milky Way: Bengali Middle Class "Frailty" and the Social Life of Milk', Calcutta 1914 – 47' accepted for publication in Suvobrata Sarkar and Sudit Krishna Kumar (eds.), *Contextualizing Body: The Indian Experience*, Manohar (forthcoming).
3. 'Placed on the Margins: "old men" in the afterlife of Partition of India', accepted for publication in Joya Chatterji and Tanika Sarkar (ed.) volume (title yet to be decided)

#### **6. Major Achievements:**

1. Refereed one manuscript for Oxford University Press, New Delhi.
2. Continued serving as member of the Academic Committee of the School of Women's Studies, Jadavpur University.
3. Continued serving as member of the Academic Committee of the School of International Relations and Strategic Studies, Jadavpur University.
4. Continued serving as member of the Academic Committee of the School of Media Communication and Culture, Jadavpur University.

#### **Assistant Professors**

#### **DR. SUCHETANA CHATTOPADHYAY (senior grade)**

##### **3. (A) Area of Research Activities:**

Urban Social History, Communism in India, Imperial Surveillance, Bengal Muslims, Sikh Political Diaspora in Bengal

##### **4. (A) Invited Lectures Delivered:**

(Name of the Teacher, Type of Participants, Name of the Seminar/Conference etc., Place, Duration)  
Suchetana Chattopadhyay (speaker), 'Revolutionary Longings' (A Conference on the Centenary of the Bolshevik Revolution), Eisenberg Institute of Historical Studies, University of Michigan, Ann Arbor, USA, 8-11 March 2017.



**(B) Seminar/Workshop/Conference/Symposium Attended:**

Suchetana Chattopadhyay (speaker), 'Muhajirs to Bolsheviks: 1917 and Early Communists from India in Central Asia' (title of paper), 'Revolutionary Longings' (A Conference on the Centenary of the Bolshevik Revolution), Eisenberg Institute of Historical Studies, University of Michigan, Ann Arbor, USA, 8-11 March 2017.

**(C) Seminar/Workshop/Conference/Symposium Organized:**

Suchetana Chattopadhyay (co-organized with Abdul Kafi), Seminar lecture at Centre for Marxian Studies, JU by Professor Vijay Prashad, 'Where do terrorists come from?', Anita Banerjee Memorial Hall, UG Arts Building, JU, 8 July 2016.

**5. (B) Articles Published in Journals: (Including National/International & Peer-reviewed Journals)**

Suchetana Chattopadhyay, 'Jihad at wartime?', South Asian History and Culture, April 2016, Volume 7, Number 2.

Suchetana Chattopadhyay, 'Being Naren Bhattacharji', Communist Histories, July 2016, Volume 1.

Suchetana Chattopadhyay, 'Closely observed ships', South Asian Diaspora, September 2016, Volume 8, Number 2.

**DR. MAROONA MURMU** : Assistant Professor

**(A) Area of Research Activities:** Socio-cultural history of Modern South Asia, Gender Studies

**3. (A) Invited Lectures Delivered/ Session Chaired:**

- Presented a paper titled 'Dr. B.R. Ambedkar's Role in Women's Empowerment' in the National Seminar on Prabuddha Bharat: Understanding Dr. B.R. Ambedkar in the Passage of Time organized by The Asiatic Society, Kolkata, 26-27, August, 2017
- Resource Person for UGC Sponsored Short Term course on Positive Discrimination organized by Barrackpore Rashtraguru Surendranath College, 28-29 September, 2016
- Presented a paper titled 'Literary Reception of Women Writers in "Renaissance Bengal" in the National Seminar on "Off the Mark": Marginality, Narratives, and Reclaiming History, Sidho-Kanho-Birsha University, Purulia, 7-8 December, 2016.
- Invited Speaker for Professor Abdul Wahab Mahmud Memorial Lecture on 'Bharatiya Itihas O Rajnitite Jati-Barna Samikaran' organized by Paschimanga Itihas Samsad, Basanti Devi College, 25 January, 2017.

**(C) Seminar/Workshop/Conference/Symposium Organized:**

Coordinator of the International Seminar on Hegemony, Resistance and Cultural Artefacts: India in the Late 19<sup>th</sup> and 20<sup>th</sup> centuries, Department of History, Jadavpur University, 7-8 March, 2017

**(B) Articles Published in Journals: (Including National/International & Peer-reviewed Journals)**

- 'Dr. Bhimrao Ramji Ambedkarer Samajik O Rajnaitik Chintadhara', *Neer*, (August 2016), Volume 17: 73-77.

**DR. TILOTTAMA MUKHERJEE** : Assistant Professor

**3. Area of Research Activities:**

Medieval Indian History especially eighteenth-century Bengal

**4. A. Seminar/Workshop/Conference/Symposium Attended:**

'Chronicling Cities: early modern Eastern India', paper presented at the Fifth Annual Conference of the Loyola Forum for Historical Research on 'Urbanisation and Environment', Loyola College, Chennai, 21-22<sup>nd</sup> July 2016.

**B. Orientation Course/Refresher Course Attended:**

Participated in *one week workshop* on 'Research Methods in International Relations and other Social Sciences' organised by The Jadavpur Association of International Relations (JAIR) and School of International Relations and Strategic Studies, Jadavpur University, 8<sup>th</sup> August to 17<sup>th</sup> August, 2016.

**5. Articles Published in Journals:**

'Travel and Economy in Early Modern Bengal' (in Japanese), *Mita Gakkai Zasshi (Mita Journal of Economics)*, Keio Economic Society, Keio University, Japan, Vol. 109, No. 3, October 2016, pp. 31-76. [Print ISSN: 0026-6760]

**Research Supervision:**

Total No. of M.Phil. (April 2016-March 2017): 2 awarded.

PhD Supervision (April 2016-March 2017): 3 ongoing; 1 submitted.

**DR. CHANDRANI BANERJEE MUKHERJEE** : Assistant Professor

(A) Area of Research Activities: Ancient Indian Social History, Womens'History, Ancient Indian Environmental History.

(B) Major Research Project:

**3. (A) Invited Lectures Delivered/ Session Chaired:**

Delivered a lecture on the "Gandhara School of Art" on 30<sup>th</sup> July, 2016 at Prafulla Chandra College (formerly South City Evening College), Kolkata.

**(B) Seminar/Workshop/Conference/Symposium Attended:**

1. Participated in the International Seminar on Sculptural Art of India: Intra /Inter Asian Linkages of the Centenary celebrations of the Dept. of Ancient Indian History & Culture, University of Calcutta on 11<sup>th</sup> February, 2017
2. Presented a paper on "Some Geographical Units of Varanasi as depicted in the Gahadavala Epigraphical Records" in the Workshop on Research Methodology of Ancient Indian History Writing :Epigraphy as a tool and source held under the auspices of The Asiatic Society, and In Collaboration with UGC DSA Programme, Department of History, Jadavpur University on 14<sup>th</sup> -15<sup>th</sup> September, 2016.

**4. Seminar/Workshop/Conference/Symposium Organized:**

1. Organised a two day Workshop jointly with Prof. Nupur Dasgupta, Professor, Dept. of History, JU on "Research Methodology of Ancient Indian History Writing :Epigraphy as a tool and source" held under the auspices of The Asiatic Society in collaboration with the UGC DSA Programme, Department of History, Jadavpur University on 14<sup>th</sup> -15<sup>th</sup> September, 2016.
2. Organised the Jadunath Sarkar Memorial Lecture, 2017 at the Dept. of History in collaboration with the Bangiyaltihaas Samiti on 23<sup>rd</sup> February, 2017. The speaker was Prof. Harbans Mukhia.

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**5. (A) Orientation Course/Refresher Course Attended:**

Attended the UGC sponsored Special Winter School titled as “Nation and Higher Education” at Jadavpur University, Kolkata from 10<sup>th</sup> March,2017 to 31<sup>st</sup> March,2017

**(B) Books/ Monographs etc. Published:**

(Name of the Teacher, Name of the Book, Name of the Publisher)

Published an article on “the Social Ecology of the Gahadavalas of Varanasi: An Epigraphical Study” in the book titled as A Collage of Environmental History,ed. By Prof. Mahua Sarkar, published by Jadavpur University, Kolkata & Alphabet Books.

**8. Major Achievements:**

Examined a dissertation for the Degree of Master of Philosophy at the Dept. of Ancient Indian History & Culture, University of Calcutta.

One Ph. D submitted (Joint Supervision with Prof. Nupur Dasgupta)

**DR. SAMARPITA MITRA : Assistant Professor**

**3. Area of Research:** Social and Cultural Histories of South Asia, Histories of Print, Publishing, Authorship and Reading

**DR. DEBAJIT DUTTA : Assistant Professor**

**3. (A) Area of Research Activities:**

Ancient Indian History, Monetary History of South Asia, North-East Indian History.

**(B) Research Project:**

‘*Conservation and Management of Tanks of Cooch Behar Town: An Environmental Perspective*’,A Minor Research Project supported by UGC-SAP, DSA-1, 2016-17, Department of History, JU.

**(B) Seminar/Workshop/Conference/Symposium Attended:**

1. ‘*Koch-Ahom Political Relations, 1498-1665: A Re-visit*’ Paper presented in the 37<sup>th</sup> Session of the North East India History Association (NEIHA) held at Sikkim Government College, Tadong, Gangtok, Sikkim from 10 to 12 November, 2016.
2. ‘*Changing Demographic Profile of the Cooch Behar Town: An Ecological Perspective*’ Paper presented in a National Seminar on Changing Demographic Scenario in Colonial and Post-Colonial North Bengal-North East India at Bakshirhat Mahavidyalaya, Cooch Behar held on 07-08, February, 2017.
3. Participated in two-day National Workshop on ‘*Research Methodology of Ancient Indian History Writing: Epigraphy as a Tool and Source*’ organized by the UGC DSA, Department Of History JU in collaboration with The Asiatic Society, Kolkata, held on 14<sup>th</sup> and 15<sup>th</sup> September, 2016.
4. Participated in the International Seminar on ‘*Recent Trends in Environmental History: Narrating Biodiversity Loss in India*’, organized by UGC DSA, Department Of History JU, held on 28<sup>th</sup> February, 2017.

**(D) Orientation Course/Refresher Course Attended:**

Participated in the 27<sup>th</sup> Orientation Programme from July 27, 2016 to August 24, 2016, organized by UGC-HRDC, University of North Bengal and obtained grade A.

**5. (B) Articles Published in Journals:**

‘*Money as Metaphor of Sovereign Power: Medieval North-East Indian Context*’, paper

### **Annual Report 2016-17**

published in Proceedings of the Indian History Congress, 76<sup>th</sup> Session of Indian History Congress, held at University of Gourbanga, Malda.

#### **7. Major Achievements:**

Awarded Doctor of Philosophy in History by University of North Bengal.

**Research Supervision:** 2 PhD (Ongoing)

**DR. UTSA RAY :** Assistant Professor

#### **3. (A) Area of Research Activities:**

Colonial and post-colonial South Asia, histories of consumption, class formation

#### **4. (A) Invited Lectures Delivered/ Session Chaired:**

Panelist for discussion of Jasodhara Bagchi's book *Interrogating Motherhood* (8 March, 2017)

#### **(B) Seminar/Workshop/Conference/Symposium Attended:**

Participated in the two-day international seminar on 'Hegemony, Resistance and Cultural Artefacts: India in the late 19<sup>th</sup> and 20<sup>th</sup> centuries', organized by the Department of History, Jadavpur University on 7-8 March, 2017, at Jadavpur University.

#### **(C) Seminar/Workshop/Conference/Symposium Organized:**

Organized A.C. Banerjee Memorial Lecture, Department of History, Jadavpur University, March 2017. It was a one day lecture given by Professor Gautam Bhadra.

#### **(D) Orientation Course/Refresher Course Attended:**

Special Winter School, 2017, titled 'Nation and Higher Education', March 10<sup>th</sup>-March 31<sup>st</sup>, 2017.

#### **5. (A) Books/ Monographs etc. Published:** "The Cosmopolitan Roots of colonial India's Bourgeoisie" in *The Global Bourgeoisie: The Rise of the Middle Classes in the Age of Empire*, edited by Christof Dejung, Jurgen Osterhammel and David Motadel (forthcoming from Princeton University Press).

## INTERNATIONAL RELATIONS

Phone & Fax : + 91-33-2414-6344  
Int. : 2457-2059/2229  
H.O.D : Dr. Kakoli Sengupta  
E-mail : hod@ir.jdvu.ac.in/cuckoocal@gmail.com  
hod.ir@jadavpuruniversity.in,

The Department of International Relations was established in 1956 as a result of the efforts of Professor Prithwish Chakraborty, an eminent Professor of International Relations, and Professor Triguna Sen, the then Vice-Chancellor of Jadavpur University, to promote the study of international affairs in a holistic manner. The Department is the only one of its kind in Eastern India. It has received UGC funding under three phases of the Department Special Assistance (DSA) programme that started in 1986, which has enabled the Department to build up its infrastructure and hold national and international conferences, student seminars, and enabled the faculty to conduct field trips to facilitate their research activities. The Department also received assistance from the UGC's ASIHSS programme in 2004-5, which further helped in infrastructure building and research pursuits. In 2009, the Department has been upgraded to the status of a Centre for Advanced Study (CAS) by the UGC and is now pursuing its second phase. The Department annually publishes *The Jadavpur Journal of International Relations*, which has been taken over by SAGE Publications since 2014. The Department houses the Centre for Refugee Studies that focuses on refugee, migration, and international displacement issues. The Department also conducts a one year PG Diploma Course (Evening) on Human Rights and Duties Education, the objective of which is to enhance knowledge and understanding of human rights and promote human rights awareness.

**1. A. Courses Offered:** (Name of the Course, Duration of the Course, No of Students Enrolled)

B.A. in Political Science (Hons.)	3 year	187
M.A. in Political Science with International Relations	2 year	134
M. Phil. in International Relations	2 year	36
Ph.D.	5 year	60

**1. B. Number of Faculty Members:** 17

Professors	10
Associate Professors	2
Assistant Professors	5

**2. A. Area of Research Activities:** (Broad Areas)

While the Department remains committed to facilitating high quality research in diverse frontiers of international relations, its curriculum, both at the undergraduate and postgraduate levels, accommodates the major areas of Political Science as well.

The Department's **research activities** include foreign policy and relations, conventional and non-traditional security issues, arms control, peace and conflict studies, international economic issues, international law, regional integration, ethnicity, gender, human rights, media and politics, democracy, development, diaspora, nationalism, terrorism and insurgency, refugee and migration issues, environmental issues, and International Relations theory.

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**Area Studies:** South Asia, Southeast Asia, Asia Pacific, United States, Russia, European Union, West and Central Asia.

**Areas of Specialization** of faculty members-

1. Prof. Gautam Kumar Basu (on lien) – Theory building in International Relations, International Political Economy, US Foreign Policy.
2. Prof. Rabindra Sen- South East Asia and Asia Pacific
3. Prof. Omprakash Mishra- Security, Human Rights, Forced Migration (Area: South Asia)
4. Prof. Sumita Sen - International Law, Maritime Law and Policy, Human Rights, Environment and Development, Gender, Conflict and Peace Issues, South & Southeast Asia
5. Prof. Tridib Chakraborti-Southeast Asia: Politics, Economics, Foreign Policy and Security Issues; Asia-Pacific: Indian Foreign Policy; International Economic Issues; Indian Political Thought; Diaspora, Ethnic Issues, Terrorism, Environmental Issues in Southeast Asia.
6. Prof. Partha Pratim Basu-Political Economy, Indian Foreign Policy, Media and Politics/ International Relations; South Asia (Pakistan, Afghanistan and Bangladesh); Human Rights.
7. Prof. Anuradha Mukherjee – French Language
8. Prof. Anindya Jyoti Majumdar - Security & Peace Studies, Forced Migration, Foreign Policy
9. Prof. Shibashis Chatterjee - International Relations Theory, Indian Foreign Policy
10. Prof. Kanak Sarkar - Ethnicity, Identity, Development in South Asian Region
11. Ms. Rochana Das - South Asia, Government and Politics of India, Ethnicity, Indian Administration, Politics of Northeast India, Terrorism
12. Dr. Kakoli Sengupta - Security, Peace Studies, Study of Terrorism & Counter-Terrorism, Conflict Resolution, Europe (Security), Irish (Northern Ireland) Politics and Security, Gender.
13. Dr. Imankalyan Lahiri - Southeast Asia-Culture, Society, Economy, Malaysian Politics, Globalization, Neo-Islam, Conflict Resolution.
14. Dr. H. N. Toppo- Security, Non-conventional Security, Security Organizations, NATO, SCO, CSTO, etc. Globalization, Russia, Central Asia, Eastern Europe (Eurasian Studies).
15. Dr. Bijaya Kumar Das - Russia, Central Asia, Diplomacy and Foreign Policy
16. Dr. Kaushik Sen - South Asian studies with special reference to economic liberalization, foreign economic policy and development in South Asian states, Globalization and Development
17. Dr. Bhagaban Behera - Security, Foreign Policy, Terrorism, Human Rights, Religion and Politics in Central Asia, Russia, Society and Politics of West Asia, International Organization, Western Political Thought.

#### **2. B. Major Research Project:**

(Departmental/Individual, Name of the Project/Funding Agency)

#### **PROF. SHIBASHIS CHATTERJEE**

Project titled “Subalternity, Nation and the International: Ethnographic Evidence from West Bengal” as part of a collective ICSSR project on “Re-working the Knowledge



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Structures in International Relations: Some Indian Contributions.” (Individual Project Value: Rs. 200000.00)

#### **DR. IMAN KALYAN LAHIRI**

Project titled “Education as a Social Security Measures in the Tea Gardens of North Bengal and North East India”, UGC-UPE-II, University Grants Commission-On going Ongoing Project on Swayng siddha-A Project on Anti-Trafficking, UNICEF

#### **3. A. Invited Lectures Delivered/Sessions Chaired:**

**(Name of the Teacher, Type of Participants, Name of the Seminar / Conference etc. Place, Duration)**

#### **PROF. OMPRAKASH MISHRA**

Paper titled “United Nations and Regionalism” in the seminar on *Regionalism in International Relations: Contours and Trends* organized by the Department of International Relations under UGC-CAS-II Programme on March 14, 2017.

Paper titled “External Powers in South Asia” (with Srirupa Mukherjee) at a seminar on *Contemporary South Asia*, organized by the School of International Relations and Strategic Studies, Jadavpur University and Maulana Abul Kalam Azad Institute of Asian Studies, Kolkata, Jadavpur University, March 21, 2017.

#### **PROF. SUMITA SEN**

Lecture delivered on *Democracy and Human Rights* at Vivekananda College for Women, Kolkata, April 2016

Lecture delivered on *Human Rights and the World Order* at Seth Surajmal Jalan College for Girls, Kolkata, September 2016

Lectures delivered on Human Rights Regime for the PG Diploma Course on Human Rights and Duties Education, Department of International Relations, Jadavpur University, Kolkata, July, 2016

Delivered lectures as Visiting Professor to the PG II students on International Relations, Department of Political Science, University of Calcutta (July-March2017)

#### **PROF. PARTHA PRATIM BASU**

Delivered SYLFF lecture on ‘Discourse Analysis’ at Jadavpur University on 26 April, 2016.

Chaired two lectures delivered by Dr. Sumit Ray and Dr. Saurabh Dutta Chaudhury organized by School of International Relations and Strategic Studies, Jadavpur University on 25 July 2017.

Delivered a lecture on ‘Comparative Method’ at the seven-day workshop on ‘Research Methods in International Relations’ organized by School of International Relations and Strategic Studies, Jadavpur University and Jadavpur Association of International Relations, Kolkata at Jadavpur University on 8 August 2016.

Chaired a lecture delivered by Prof. Amiya Bagchi on ‘From Neo-liberalism to Fascism: An Era of Intolerance’ organized by Historical Materialists, on 15 September 2016 at Jadavpur University.

Chaired a session in the Seminar on ‘India and China in the Emerging Asian Domain: the Road Ahead’ organized by Netaji Institute for Asian Studies, School Chinese



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Language, Kolkata and H P Biswas India China Cultural Study Centre Jadavpur University, on 23 September at Jadavpur University on 23 September 2016.

Delivered an Extension Lecture on 'India-Pakistan Relations' in the Dept. of Political Science, Diamond Harbour University (for Women) on 24 November 2016.

Delivered four Extension Lectures on 'Political Theory' to the postgraduate students of Dept. of Political Science, Lady Brabourne College, Kolkata in December 2016.

Chaired a Special Session in the 'The BCIM Initiative and India's "Act East" Policy: A Reality Check' organized by the Kolkata Society for Asian Studies, Institute of Foreign Policy Studies University of Calcutta, Indian Council of World Affairs, New Delhi, at University of Calcutta, 12 January 2017.

Delivered four lectures in the PG Diploma (Evening) Course on Human Rights in January (11, 13, 17, 28) 2017.

Acted as Discussant during release of the ORF Report titled *Indian Media's Perception of China: Analysis of Editorials* at Observer Research Foundation, Kolkata, on 4 February 2017.

Delivered a lecture on 'Afghanistan' in the 'International Understanding for Human Unity' Course at Ramakrishna Mission, Gol Park, Kolkata on 7 February 2017.

Chaired a session in the Annual Conference of West Bengal Political Science Association at RabindraBharati University, Kolkata on 5 March 2017.

Chaired a session in National Seminar on 'Regionalism in International Relations' organized by CAS Programme, Dept. of International Relations, Jadavpur University, during 14-15 March 2017.

Chaired a session in the National Seminar on 'Sustenance and Development in Tea Gardens of Northeast India and North Bengal' organized under UGC-UPE Programme of 'Cultural Resources and Social Science' Jadavpur University on 28 March 2017.

Presented a paper titled 'India and the SAARC' at a National Seminar on *India and Her Neighbours: History and the Present Scenario* organized by Dept. of Political Science, PN Das College, Palta, N 24 Parganas, on 20 September 2016.

Presented a paper titled 'Politics of Water-sharing: Some South Asian Cases' in the Seminar on *Contemporary South Asia* organized by School of International Relations and Strategic Studies, Jadavpur University and Maulana Abul Kalam Azad Institute of Asian Studies (MAKAIAS), Kolkata on 21 March 2017.

#### **PROF. ANINDYA JYOTI MAJUMDAR**

Presented a paper titled 'Power Rivalry in the Indian Ocean Region' in Seminar on *India: the Global Actor in Indian Ocean* on December 15, 2016 at Bhawanipur Education Society College, Kolkata.

Presented a paper titled 'Regionalism in the Quest for Security' in the National Seminar on *Regionalism in International Relations: Contours and Trends*, March 15, 2017, Department of International Relations, Jadavpur University.

Presented a paper titled 'A Geopolitical Narrative of South Asia' in the Seminar on *Contemporary South Asia* organized by School of International Relations and Strategic Studies, Jadavpur University and Maulana Abul Kalam Azad Institute of Asian Studies (MAKAIAS), Kolkata on 21 March 2017.

### **Annual Report 2016-17**

Seminar Address on the theme of '*Coalition Politics and Federal System in India*' on December 8, 2016 at Sripat Singh College, Jiaganj, Murshidabad.

Delivered Key-note Address in the International Seminar on '*India-China and the Present World Order*' on November 24, 2016 at International Management Institute, Kolkata.

Delivered lecture on '*India as an Emerging Power in Post- Cold War Era*' on August 26, 2016 at Thakurpukur Vivekananda College, Kolkata.

Delivered special lecture on '*India's Foreign Policy: Continuity and Change*' on September 28, 2016 at the Students' Seminar, SIRSS, Jadavpur University

Delivered a lecture and Released a Report on '*India-Bangladesh Connectivity: A Year after Modi's Visit*' on July 9, 2016 at the Observer Research Foundation, Kolkata.

Delivered lecture on '*Arms Control: Logic and Reality*' on February 10, 2017 at Ramakrishna Mission Institute of Culture, Kolkata.

Delivered lecture in Interdisciplinary Winter School on '*Nation and Higher Education*' on March 20, 2017, Jadavpur University.

Delivered lecture on '*India-China Relations: Recent Trends*' on March 29, 2017 at Gokhale Memorial Girls' College, Kolkata.

Chaired a session in National Seminar on '*Sustenance and Development in the Tea Gardens of Northeast India and North Bengal*' on March 28, 2017, organized under UPE-II Programme, Jadavpur University.

Chaired a session in International Seminar on '*India and China in Emerging Asian Domain: The Road Ahead*' on September 22, 2016, HP Biswas India-China Cultural Study Centre, Jadavpur University.

Chaired a session in International Conference on '*New Indian Migrants and Indentured Diaspora: Emerging Opportunity for India's Foreign Policy*' on November 3, 2016, CSIRD, IFPS, Calcutta University.

### **PROF. SHIBASHIS CHATTERJEE**

Presented a paper titled '*Power, Commerce and Community: India's Spatial Imagination/s of South Asia*' as part of the South Asian Studies Colloquium Series | Spring 2017, Yale University, on January 26, 2017.

Presented a paper titled '*Foreign Policy as 'space-making': Northeast India in and the Look/Act East Policy*', MacMillan Center Fellow's Seminar, December 8, 2016.

Presented a paper titled '*Regions': Power, Culture, Governance and Reflexivity*' at a National Seminar on '*Regionalism in International Relations: Contours and Trends*' organized by the Department of International Relations under UGC-CAS-II Programme on March 14, 2017.

Presented a paper titled '*Realism sans transformation: Making sense of India's imaginations of South Asia*' presented at a Seminar on '*Contemporary South Asia*', organized by the School of International Relations and Strategic Studies, Jadavpur University and Maulana Abul Kalam Azad Institute of Asian Studies, Kolkata, Jadavpur University, March 21, 2017.

Delivered a lecture on '*Sovereignty and Borders in South Asia*' at Soka University, Los Angeles, USA, on January 17, 2017.

### **Annual Report 2016-17**

Delivered four lectures at the PG Diploma Program on *Human Rights and Duties Education*, organized by the Department of International Relations, Jadavpur University, in March, 2017.

#### **PROF. KANAK CHANDRA SARKAR**

Delivered a series of invited lectures at the Department of Government and Politics, Jahangirnagar University, Bangladesh, March 21-24, 2017.

#### **DR. KAKOLI SENGUPTA**

Delivered an Invited Lecture on 'International Women's Day' organized by Rotary Club of Calcutta Metropolitan East, held on 8 March, 2017.

Delivered two lectures at the PG Diploma Course on Human Rights and Duties Education, organized by the Department of International Relations, Jadavpur University in March 2017.

Presented a paper titled 'A Post-Brexit World: Lessons for South Asia' on 21 March, 2017 in the Seminar on Contemporary South Asia jointly organized by the School of International Relations and Strategic Studies, Jadavpur University and Maulana Abul Kalam Azad Institute of Asian Studies, Kolkata and held in the Vivekananda Hall, Jadavpur University.

Acted as Discussant during Roundtable on 'Implications of Brexit' with Professors of Hull University, UK organized jointly by the Department of International Relations and the School of International Relations and Strategic Studies, Jadavpur University on 20 September, 2016 at Committee Room 1, Jadavpur University.

#### **DR. IMAN KALYAN LAHIRI**

Acted as Guest Faculty for the M.A. programme in International Studies at Symbiosis School of International Studies (SSIS), Pune for Semester I, 13th and 14th of October, 2016.

Lectures delivered for the students of Post Graduate Diploma in Human Rights and Post Graduate Diploma in International Studies, Department of Civics and Politics, University of Mumbai, 8<sup>th</sup> and 9<sup>th</sup> October, 2016.

Lectures Delivered on Developments in India-Nepal and India Bhutan Relations, 27<sup>th</sup> August, 2016, 29<sup>th</sup> August, 2016, 11<sup>th</sup> July, 2016, 16<sup>th</sup> July, 2016, SSB, Ministry of Home Affairs, Government of India.

Paper titled "*Language Does not Change at the Border , but Politics does*", delivered at the International Conference on Borders and Border Studies ,South Asian University, New Delhi, 6<sup>th</sup> -7<sup>th</sup> March, 2017.

#### **DR. HERKAN NEADAN TOPPO**

Presented paper on 'Russia and NATO Relations: Approaches and Apprehensions of Russian Foreign Policy' in the International Conference on 'Twenty Five Years of Post-Soviet Experience: Perspective on Nation Building and Democratisation in Eurasia', held from 2- 4 November, 2016, organized by the Center for Russian & Central Asian Studies, School of International Studies, Jawaharlal Nehru University, New Delhi, INDIA

Presented paper on 'Politics of Identity Construction Among the Tribals of Chotanagpur: A Theoretical Understanding' in the international conference on "Sociology of Religion in a Pluralistic Society", held from 7-9 April, 2016, organized by Centre for the Study of Religion and Society, Department of Sociology, Jadavpur University in collaboration

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with Lancaster University (UK) at Anita Banerjee Memorial Hall, Jadavpur University, Kolkata, India.

Participated in an Indian Council of Social Science Research (Eastern Regional Center) supported 7 Day Workshop from August 8 – 17, 2016 on 'Research Methods in International Relations and other Social Sciences' organized by the School of International Relations and Strategic Studies, Jadavpur University in collaboration with Jadavpur Association of International Relations, Kolkata.

#### **DR. BIJAYA KUMAR DAS**

Presented a paper on 'Whose Backyard? Russia and China in Central Asia' in the three day International Conference on 'Twenty Five Years of Post- Soviet Experience: Perspectives on Nation Building and Democratization in Eurasia', held on 2-4 November, 2016, organized by the Centre for Russian & Central Asian Studies, School of International Studies, Jawaharlal Nehru University, New Delhi, India.

Presented a paper on 'Quest for Social Justice and Caste Politics in India' in the two days international seminar on "Social Stratification and Political Transformation: Rethinking Indian Democracy", held on 10<sup>th</sup>-11<sup>th</sup> November, 2016, organized by the Department of Political Science, Bankura University in collaboration with Indian Council of Social Science Research (ICSSR), New Delhi.

Presented a paper on 'Conducting Research in the field of International Relations through the medium of mother tongue: challenges ahead', in the UGC sponsored International Seminar on "Higher Education through Mother-Tongue: Problem and Prospects" on 7<sup>th</sup> and 8<sup>th</sup> March 2017, organized by the Department of Education, Jadavpur University jointly with Byanjanbarna Foundations, Kolkata.

#### **DR. BHAGABAN BEHERA**

Presented paper on 'Formation of the Eurasian Economic Union and Its Impact on India', in the International Seminar on "Twenty Five Years of Post Soviet Experience: Perspectives on Nation Building and Democratization in Eurasia", 2-4 November 2016, organized by Centre for Russian and Central Asian Studies, School of International Studies, JNU, New Delhi.

Presented paper on 'The Eurasian Economic Union: Process, Promise and Pitfalls' in the National Seminar on "Regionalism in International Relations: Contours and Trends", 14-15 March 2017, organized by the Department of International Relations, Jadavpur University, Kolkata.

#### **3. C. Seminar/Workshop/Conference/Symposium Organized:**

(Name of the Teacher, Name of the Paper Presented, if any, Name of the Seminar, Place, Duration)

#### **PROF. OM PRAKASH MISHRA**

Acted as Joint-Convener of a National Seminar on 'Regionalism in International Relations' organized under CAS II Programme, Dept. of International Relations, Jadavpur University, 14-15 March 2017.

#### **PROF. PARTHA PRATIM BASU**

Acted as Joint Convener of a National Seminar on 'Regionalism in International Relations' organized under CAS II Programme, Dept. of International Relations, Jadavpur University, 14-15 March 2017.

### **Annual Report 2016-17**

Acted as Coordinator of a seven-day Workshop on 'Research Methods in International Relations' organized by School of International Relations and Strategic Studies, Jadavpur University and Jadavpur Association of International Relations, Kolkata, during 8-17 August 2016, at Jadavpur University.

#### **PROF. KANAK CHANDRA SARKAR**

Organized a visit for the students of the Department of International Relations to the West Bengal Legislative Assembly and attended the Assembly, Monsoon Session on June 22, 2016.

Organized a lecture by the US Consul General, Mr Craeig Hall on *The US-India Relations* at Department of International Relations on 12 July 2016.

#### **DR. KAKOLI SENGUPTA**

Roundtable with Professors of Hull University, UK on 'Implications of Brexit' organized jointly by the Department of International Relations and the School of International Relations and Strategic Studies, Jadavpur University on 20 September 2016, at Committee Room 1, Jadavpur University.

Convener of the International Relations Scholastic Conclave 2016, organized by the Department of International Relations, Jadavpur University in collaboration with the Bhawanipur Education Society College, Kolkata, on 22 and 23 September, 2016 on the theme 'Transnational Security Issues in the Contemporary World', held at the H.L.Roy Auditorium, K.P. Basu Memorial Hall and the Department of International Relations Seminar Hall, Jadavpur University.

Lecture on 'India-Afghanistan Relations: Challenges and Opportunities' by Mr.NazirKabiri, Advisor to the Minister, Ministry of Finance, Islamic Republic of Afghanistan on 5 January, 2017 in the Seminar Hall of the Department of International Relations, Jadavpur University.

The 4<sup>th</sup> Biennial Anil Sarkar Memorial Lecture by Professor Aswini K.Ray on 'Indo-Pak Relations: State and People in the Context of Present Turmoils' organized by the Netaji Institute for Asian Studies in collaboration with the Department of International Relations, on 6 January, 2017, in the IR Seminar Hall, Jadavpur University.

Seminar on Human Rights on the theme 'Stand Up for the Rights of Others' organized by the Department of International Relations, Jadavpur University in collaboration with United Nations Information Centre for India and Bhutan, New Delhi, West Bengal Federation of United Nations Association and Netaji Institute for Asian Studies, Kolkata, on 10 January 2017, at TEQIP Building, Jadavpur University.

Lecture on 'Political Responsibility and Leadership in a Globalised Fractured World' by Professor Richard Beardsworth, Director of Research and Deputy Head, Department of Politics, Aberystwyth University, on 2 February, 2017, organized by the British Council, in collaboration with the Department of International Relations, in the Seminar Hall of the Department of International Relations.

Lecture Discussion on 'Perilous Interventions- The Security Council and the Politics of Chaos' on 3 February, 2017 by Hardeep Singh Puri, India's former Permanent Representative at the United Nations in the Seminar Hall of the Department of International Relations, Jadavpur University.



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Lecture by Dr. Shailendra Raj Mehta, Distinguished Professor of Strategy, Acting Vice Chancellor and Chairman of the Board of Management, Auro University, Surat on 'Free Speech and Academic Freedom in India and in the West' on 9th February, 2017 at the Anita Banerjee Memorial Hall, jointly organized by the School of Cultural Texts and Records, Department of English and Department of International Relations, Jadavpur University.

Lecture on 'Challenges of Indian Foreign Policy' by Shri M.K. Narayanan, Former Governor of West Bengal and former Chancellor of Jadavpur University, on 3 March, 2017 in the K.P.Basu Memorial Hall, Jadavpur University.

Roundtable Discussion with the British Deputy High Commission led by the British Deputy High Commissioner in Kolkata, Mr Bruce Bucknell, on 22 March, 2017 held in the Department of International Relations Seminar Hall, Jadavpur University.

#### **DR. IMAN KALYAN LAHIRI**

Organized a National Seminar on India in the 21<sup>st</sup> Century: Governance and Foreign Policy Imperatives, 19<sup>th</sup> and 20<sup>th</sup> December, 2016 organized by JAIR and Department of Civics and Politics, Mumbai University, supported by Indian Council of World Affairs (ICWA), New Delhi.

- 3. D. Orientation Courses/ Refresher Courses Attended:** (Name of the Teachers, Title of the Course, Duration, Place)

#### **DR. HERKAN NEADAN TOPPO**

Participated in an Indian Council of Social Science Research (Eastern Regional Center) supported 7 Day Workshop on 'Research Methods in International Relations and other Social Sciences' (August 8 to August 17, 2016) organized by the School of International Relations and Strategic Studies, Jadavpur University in collaboration with Jadavpur Association of International Relations, Kolkata.

#### **DR. BHAGABAN BEHERA**

Participated in the 62<sup>nd</sup> Orientation Program which was conducted by UGC-Human Resource Development Centre, Salt Lake Campus, Jadavpur University, August 29 - September 27, 2016.

- 4. A. Books/Monographs etc. Published :** (Name of the Teacher, Name of the Book, Name of the Publisher)

#### **PROF. SUMITA SEN**

'Environmental Sustainability as a Positive Livelihood Outcome', published in edited book on Environment and the Adivasi World, Alfabeta Books and Jadavpur University, March 2017.

#### **PROF. ANINDYA JYOTI MAJUMDAR**

'Innate Security Contest in the Emerging India Theme' in Rajkumar Kothari and Eyasin Khan (eds), *India Becoming a Global Power in the Twenty-first Century: Rising Challenges and Newer Opportunities*, Atlantic, New Delhi, 2017.

#### **PROF. SHIBASHIS CHATTERJEE**

'India's Foreign Policy in the Post-Cold War Era' (With Sreya Maitra Roychoudhury), in C. Vinodan (ed.), *India's Foreign Policy and Diplomacy*, New Century Publications, New Delhi, 2017.

### **Annual Report 2016-17**

“Theorising India’s ‘Rise’: Levels, Structures and Agency in India’s Foreign Policy” (with Sreya Maitra Roychoudhury) in Rajkumar Kothari and Eyasin Khan (eds.), *India Becoming a Global Power in the Twenty-First Century; Rising Challenges and Newer Opportunities*, Atlantic Publishers, 2017.

#### **DR. IMAN KALYAN LAHIRI**

Book titled *Peace, Development and Community: The Look East Imagination of India with Special Reference to North East India*, MAKAIS and Knowledge World Publishers Private Limited, 2017.

#### **DR. HERKAN NEADAN TOPPO**

Book titled *Russia and North Atlantic Treaty Organization Relations: Changing Perception of Russia Towards NATO in Emerging World Politics*, Readers Service Publishing Pvt. Ltd., Kolkata, India. ISBN: 978-93-82623-64-9, 2016.

**Articles Published in Journals: (Including National/International & Peer-reviewed Journals)**

#### **PROF. PARTHA PRATIM BASU**

‘Federalism and Foreign Policy in India: Experiences of UPA and NDA II Regimes’, *India Quarterly*, (SAGE), 72 (3), 2016.

#### **PROF. SHIBASHIS CHATTERJEE**

‘Western Theories and the non-Western World: A Search for Relevance’, in *South Asian Survey* (SAGE), 21(1&2), 2017.

‘Linklater and Critical IR Theory: Discourse ethics, territoriality and citizenship’, in *Research Journal: Social Sciences* (Punjab University), Vol. 24, Issues 1& 2, 2016.

#### **DR. HERKAN NEADAN TOPPO**

‘India’s Interests in Emerging Sub-regional Cooperation: Opportunities and Challenges’, in *Jadavpur Journal of International Relations* (SAGE), Volume 20, Issue I, ISSN: 0973-5984, 2016.

#### **5. Collaborative Programmes:**

A Roundtable with Professors of Hull University, UK on ‘Implications of Brexit’ was organized by the Department of International Relations jointly with the School of International Relations and Strategic Studies, Jadavpur University on 20 September 2016, at Committee Room 1, Jadavpur University.

The International Relations Scholastic Conclave 2016 was organized by the Department of International Relations, Jadavpur University in collaboration with the Bhawanipur Education Society College, Kolkata, on 22 and 23 September, 2016 on the theme ‘Transnational Security Issues in the Contemporary World’ and held at the H.L.Roy Auditorium, K.P. Basu Memorial Hall and the Department of International Relations Seminar Hall, Jadavpur University.

The 4<sup>th</sup> Biennial Anil Sarkar Memorial Lecture by Professor Aswini K. Ray on ‘Indo-Pak Relations: State and People in the Context of Present Turmoils’ on 6 January, 2017 was organized by the Netaji Institute for Asian Studies in collaboration with the Department of International Relations, on 6 January, 2017, in the IR Seminar Hall, Jadavpur University.



### **Annual Report 2016-17**

A Seminar on Human Rights on the theme 'Stand Up for the Rights of Others' was organized by the Department of International Relations, Jadavpur University in collaboration with United Nations Information Centre for India and Bhutan, New Delhi, West Bengal Federation of United Nations Association and Netaji Institute for Asian Studies, Kolkata, on 10 January 2017, at TEQIP Building, Jadavpur University.

A Lecture on 'Political Responsibility and Leadership in a Globalised Fractured World' by Professor Richard Beardsworth, Director of Research and Deputy Head, Department of Politics, Aberystwyth University, on 2 February, 2017, was organized by the British Council, in collaboration with the Department of International Relations, in the Seminar Hall of the Department of International Relations.

#### **6. Major Achievements: Fellowship/Award**

Professor Shibashis Chatterjee was awarded Fulbright-Nehru Academic and Professional Excellence Fellowship 2016-2017 and was affiliated at the Mac Millan Center for International and Area Studies and the Department of Political Science at University of Yale, US, between August 2016 and February 2017.

### **LIBRARY & INFORMATION SCIENCE**

Phone : + 91- 33-2414-6145  
Int. : 2457-2264  
H.O.D : Prof. Udayan Bhattacharya  
E-mail : hod@libsc.jdvu.ac.in  
hod.libinfsc@jadavpuruniversity.in

#### **UDAYAN BHATTACHARYA**

##### **PAPER PUBLISHED**

1. BHATTACHARYA, UDAYAN (with Atanu Das). 2016. Knowledge inflow in Library and Information Science in India: a case study of Library Herald. Asian Journal of Multidisciplinary Studies.4, 6.
2. BHATTACHARYA, UDAYAN (with Arijit Das). 2016. Nobel Laureates Amartya Sen: A Scientometric Portrait. Librarian.23, 2.

##### **RESOURCE PERSON**

1. Acted as Resource person in Refresher in the Department of Library & Information Science at University of North Bengal held during November, 2016.
2. Acted as Resource Person in UGC-HRDC sponsored Short Term Workshop on 'Use of Information Sources in Research & Development' held at DLIS, Jadavpur University during 5th January to 11th January '2017.
3. Acted as Resource Person in TEQUIP-II, Jadavpur University sponsored seminar on "Libraries and Technological Changes: Today & Tomorrow" on 30<sup>th</sup> March, 2017

##### **Ph.D. AWARDED**

1. Atanu Das. Mapping of Inter-relationship between Library and Information Science (LIS) and Non-LIS Literature Publications

## **SESSION CHAIRED**

1. Conference on Open Access: The Road of Freedom 7 & 8th April 2017. Organized by Society of Information Science, India.
2. The Department of Library and Information Science, Rabindra Bharati University, organized a National Seminar on 'Towards knowledge society and the role of academic libraries: problems and prospects' on March 18, 2017
3. International Conference on Lifelong Learning in Developing Countries: Issues and Perspectives. Central Library, University of Kalyani. 16-17 February 2107.
4. UGC Sponsored National Seminar on 'LIS Curricula in Indian Universities' Dept. of Library and Information Science, Jadavpur University, 3-4February, 2017

## **UGC-UPE-II PROGRAMME**

1. Principal Investigator: Digital Reference Sources: An Open Text Book
2. Joint Coordinator: Digital Library & Web Based Materials, UPE-II, Jadavpur University

## **WORKSHOP**

1. **Workshop on** Digital Reference Sources: An Open Text Book. Organized by Department of Library & Information Science, Jadavpur University, under UPE-II during 29-30 June, 2017.

## **Professor Subarna Kumar Das**

### **Paper Publication**

1. **DAS, SUBARNA KUMAR** .STUDY OF THE DEVELOPMENT OF COLLECTION AND UTILIZATION OF PUBLIC LIBRARY SERVICES IN BARRACKPORE SUB-DIVISION, WEST BENGAL, INDIA: A CRITICAL ASSESSMENT STUDY. **M.R BOOKS: GAUHATI, 2017**
2. **DAS, SUBARNA KUMAR** .INFORMATION MANAGEMENT AND USE OF ICT IN THE GOVERNMENT ENGINEERING COLLEGE LIBRARIES OF WEST BENGAL: AN ANALYTICAL STUDY. **M.R BOOKS: GAUHATI, 2017**
3. **DAS, SUBARNA KUMAR & MAL,DEVKUMAR**.ICT INFRASTRUCTURE & STATUS OF AUTOMATION IN PRIVATE ENGINEERING COLLEGE LIBRARIES OF WEST BENGAL: A COMPARATIVE ANALYSIS.IN RAUTARAY, BIJAYALAXMI AND OTHERS(EDS.). Matching Beyond Libraries: role of Social Media and Networking. **Bhubneswar: Overseas Press India Limited & KIIT University, 2016**
4. **SEN, PARAMITA & DAS, SUBARNA KUMAR**.USE OF E-RESOURCES BY N-LIST IN THE COLLEGE LIBRARIES UNDER WEST BENGAL STATE UNIVERSITY. **IN ICDL2016: KNOWLEDGE TRENDS THAT WILL CHANGE THE WORLD. NEWDELHI: TERI,2016**
5. **DAS, SUBARNA KUMAR & PARAMANIK, AMIYA**"Measuring the Green Library System: An Overview". **In MZU-ICLIS,2017**. Aizwal; Mizoram University,2017
6. **DAS, SUBARNA KUMAR& DAS, ADITI**."Green Library Initiatives in Private School Libraries in North Kolkata : An Evaluative Study "**In MZU-ICLIS,2017**. Aizwal; Mizoram University,2017
7. **BANERJEE, MOHIT DAS, SUBARNA KUMAR** .Document Management System in Indian Electronic Industry: Some Issues and Observations.**Librarian**, Vol23, Issue No 1, July, 2016

### **Paper Presentation**

1. **Das, Subarna Kumar** .Presented a paper on “STUDY OF THE DEVELOPMENT OF COLLECTION AND UTILIZATION OF PUBLIC LIBRARY SERVICES IN BARRACKPORE SUB-DIVISION, WEST BENGAL, INDIA: A CRITICAL ASSESSMENT STUDY” in ICTL, 2017 held at CIT, Kokrajhar, Assam, Organised by DLIS, Gauhati University and CIT, Kokrajhar during 8-10 July, 2017.
2. **Das, Subarna Kumar** .Presented a paper on “INFORMATION MANAGEMENT AND USE OF ICT IN THE GOVERNMENT ENGINEERING COLLEGE LIBRARIES OF WEST BENGAL: AN ANALYTICAL STUDY” in ICTL, 2017 held at CIT, Kokrajhar, Assam, Organised by DLIS, Gauhati University and CIT, Kokrajhar during 8-10 July, 2017.
3. **Basu, Aditi & Das, Subarna Kumar** . Presented a Paper on “Necessary of IT in Present LIS curricula in Indian Universitties” in UGC Sponsored National Seminar on “ LIS Curricula in Indian Universities during 3-4 Feb, 2017 organised by DLIS, Jadavpur University
4. **Das, Debarati Das & Subarna Kumar** . Presented a paper on “LIS Education infrastructure in the distance education in West Bengal” in UGC Sponsored National Seminar on “ LIS Curricula in Indian Universities” during 3-4 Feb, 2017 organised by DLIS, Jadavpur University
5. **Das, Subarna Kumar**.Presented a paper on”Measuring the Green Library System: An Overview”. **In MZU-ICLIS,2017**during 1-3 March, 2017. Aizwal; Mizoram University,2017
6. **Das, Subarna Kumar**. Presented a paper on”Green Library Initiatives in Private School Libraries in North Kolkata: An Evaluative Study “**In MZU-ICLIS,2017 during 1-3 March, 2017**. Aizwal; Mizoram University, 2017

### **Acted as Resource Person/ Session Chaired**

1. Acted as Resource person in UGC-HRDC Short-Term Workshop on “ Use of Information Sources in Research and Development” during5-11 January, 2017 organised by UGC-HRDC,JU and DLIS,JU
2. Acted as Resource person in UGC-HRDC Short-Term Workshop on “Open access to scholarly literature: technological and ethical aspects”on 28<sup>th</sup> January, 2017 organised by UGC-HRDC,CU and DLIS,CU
3. Acted as Resource person in UGC-HRDC Short term Workshop on “ Basic Skill of Counselling” on 14<sup>th</sup> January organized by UGC-HRDC,JU and Dept. of Education,JU
4. Acted as resource person in UGC-HRDC Sponsored 62<sup>nd</sup> Orientation Programme organized by UGC,HRDC,JU during January,2017
5. Acted as Resource person in UGC-HRDC Sponsored 63<sup>rd</sup> Orientation Programme organized by UGC,HRDC, JU during March,2017
6. Acted as Resource person in UGC-HRDC Sponsored ‘Winter School “ organized by UGC,HRDC,JU and Dept. of History, during March,2017
7. Acted as Resource person in UGC-HRDC Sponsored ‘Refresher Course on Library and Information Science “ organized by UGC,HRDC,NBU and Dept. of Library and Information Science,NBU during 3-21 November,2016
8. Session Chaired in **ICTL, 2017** held at CIT, Kokrajhar organized by CIT, Kokrajhar and Gauhati University during 8-10 July,2017

### **Annual Report 2016-17**

9. Session Chaired in ICLIS, 2017 held at Aizwal, Mizoram University organized by Mizoram University during 1-3 March, 2017
10. Session Chaired in UGC& RRRLF sponsored National Seminar on Efficient Library and Information Services in Digital Era” during 24-26 March, 2017 organised by DLIS, University of Burdwan
11. Session Chaired in UGC Sponsored International Conference on Rabindranath Tagore’s Thoughts on Library and Education on 18th April,2017 at Nazrul Bhavan Jadavpur University organised by Dept. of Education, JU and Banjanbarna Foundation,Kolkata
12. Session Chaired in UGC Sponsored National Seminar on “ LIS Curricula in Indian Universities” during 3-4 Feb, 2017 organised by DLIS, Jadavpur University
13. Acted as Resource person in Murshidabad District Book Fair Seminar on Users, Documents and Public Library ,2017 on 12th Feb,2017 organised by Director of Library Services, Govt. of West Bengal, LLA, Murshidabad District and RRRLF
14. Session Chaired in International Seminar on **Line ( Library for Next Generation) 2016** on 17th December, 2016 at DLIS, University of Kalyani organized by DLIS, University of Kalyani and KULISSA

#### **Course Organised**

1. Acted as Co-ordinator in UGC-HRDC Short-Term Workshop on “Use of Information Sources in Research and Development” during 5-11 January, 2017 organised by UGC-HRDC, JU and DLIS, JU
2. Acted as Joint Organising Secretary, in UGC Sponsored National Seminar on “LIS Curricula in Indian Universities” during 3-4 Feb, 2017 organised by DLIS, Jadavpur University
3. Acted as Co-coordinator of 62<sup>nd</sup> Orientation programme in UGC-HRDC Sponsored 62<sup>nd</sup> Orientation Programme organized by UGC, HRDC, JU during August-September,2016

#### **PROF. GOUTAM MAITY**

##### **PAPER PUBLISHED**

Maity, G. (with Paramita Pathak). (2017). Gender-Specific Information Seeking Behaviour. *International Journal of Digital Library Services*. 7(1), 47-59.

##### **Ph.D AWARDED**

Sambhu Nath Halder. The Use of Subject Headings for Bengali Documents in Online Public Access Catalogue. Supervisor: Prof. Goutam Maity. PhD awarded by Jadavpur University at the Annual Convocation, held on December 24, 2016.

##### **RESOURCE PERSON**

- 1) Acted as Resource Person in UGC sponsored Short Term Course in Information Science and Technology organized by the UGC-HRDC, University of Calcutta, held during 25-31 January 2017. Topic: Research Methodology.
- 2) Acted as Resource Person in UGC Sponsored National Seminar on Exertion to Establish Knowledge Society: Responsibility of Academic Libraries, held during 24th & 25th September, 2016 organized by Shimurali Sachinandan College of Education Shimurali, Nadia, West Bengal, in collaboration with Indian Institute of Chemical Biology(CSIR), Kolkata. Topic: Philosophy of Knowledge Society and the Role of Libraries.

## SESSION CHAIRED

- 1) UGC Sponsored National Seminar on 'LIS Curricula in Indian Universities' organized by the Dept. of Library and Information Science, Jadavpur University, held during 3-4 February, 2017.
- 2) UGC Sponsored National Seminar on Roadmap for Ensuring the Quality of Library and Information Science Education and Research Organized by K. D. College of Commerce & General Studies, Midnapore, held during 27-28 January 2017.

## FELICITATION

- 1) Felicitation received from the Dept. of Mass Education Extension and Library Services, Ministry of Education Government of West Bengal on the eve of observance of the Public Library Day in West Bengal, held on 31st August 2016.
- 2) Felicitation received from Library Association of Bangladesh, Dhaka, Bangladesh on 29 December 2016 at Dhaka, Bangladesh.
- 3) Felicitation received from the University of Burdwan, West Bengal on the eve of Golden Jubilee Celebration of the Department of Library and Information Science held during 24-26 March, 2017.

## Dr. Sunil Kumar Chatterjee

### Articles Published

Information sources on lectures, addresses and speeches of Rabindranath Tagore: a critical analysis. *Librarian*, 23(2), 2016, p. 21-28.

### Seminar Organized

Served as an Organizing Secretary in **Two day UGC sponsored National Seminar on 'LIS**

**Curricula in Indian Universities, held at J.U. during 03/02/17 to 04/02/17.**

## Ph.D. awarded

### Name of Scholar

### Topic

**Joydip Chandra** : Web Link Analysis of Higher Academic Institutions in India towards Optimization of Ranking Methods

**Kuldip Chand** : Management and Usage of E-Resources of Agricultural University Libraries in Rajasthan

## Dr. Tarun Kumar Mondal

- Delivered invited lecture in the 'Convention of Students, Teachers and LIS Professionals on LIS Education' organized jointly by BLA and IASLIC held at DLIS, Jadavpur University on 30<sup>th</sup> July '2016.
- Co-authored an article entitled "Indian philosophy in three free online encyclopedias : Comparison of Wikipedia with Stanford Encyclopedia of Philosophy and Internet Encyclopedia of philosophy with Piyali Ghosh published in *Librarian*, Vol.23, Issue 2 (July 2016).
- Acted as Resource Person in UGC-HRDC sponsored Short Term Workshop on 'Use of Information Sources in Research & Development' held at DLIS, Jadavpur University during 5th January to 11th January '2017.

### Annual Report 2016-17

- Chaired in a technical session in UGC sponsored National Seminar on 'LIS Curricula in Indian Universities' organized by DLIS, Jadavpur University during 3-4 February' 2017.
- Presented a paper entitled "**Teaching ICT in LIS Courses : My experiences with Truth**" in UGC sponsored National Seminar on 'LIS Curricula in Indian Universities' organized by DLIS, Jadavpur University during 3-4 February' 2017.
- Co-Principal Investigator of the project '**Digital Reference Source : An Open Textbook**' under UPE-II Programme, Jadavpur University.

### PHILOSOPHY

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Int. : 2457-2358  
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**Ratna Dutta Sharma, Ph.D.** Professor

#### **Seminars/ Conferences/ Workshops Attended/ Organized/ Papers Presented/ Sessions Chaired:**

- Acted as a resource person of the workshop on Buddhist Logic organized by Ramakrishna Mission Institution of Culture (From 20th June – 30th June) 2016
- Delivered a lecture on Research Methodology as a resource person for the Ph.D. Course work of Sanskrit Department, Jadavpur University on 30th August'2016.
- Acted as a resource person in the workshop on 'Buddhist Logic' organized by Ramakrishna Mission Institution of Culture, Golpark, from 20th June'2016 – 30th June'2016.
- Delivered a series of lecture as external resource person for the Ph.D. course work of Philosophy Department, WBSU on 7th Sep. and 14th Sep' 2016.
- Chaired a session in the seminar organized by the Department of Philosophy, Jadavpur University, in the International Philosophy day, 2016.
- Chaired a session in the National Seminar organized by the ICPR Centre for Buddhist Studies, Department of Philosophy, Jadavpur University during 3<sup>rd</sup>-4<sup>th</sup> October, 2016.

#### **Publication Details: Books, Journals, Articles, Chapters:**

##### **Published**

- Written on two topics "Vāda, Jalpa and Vitandā" and "Nyāya Bauddha Controversy over Nigrahasthāna" for Epathsāla.
- Bhasarvajñasammata Pratyakṣa Pramānalakṣaṇa has been published in the anthology 'Nyāya Samvitti' edited by Preetam Ghosal and Samkalita Ghosh, Krishnanagar Government College.



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**Forthcoming-**

- 'On definition', in essays in Honour of Amita Chatterjee, ed. by Madhuchanda Sen, Kuntala Bhattacharya and Smita Sarker. (Forthcoming)

**Phd Supervision :**

**Ongoing (Registered):** 5

**M.Phil Supervision :**

**Awarded:** 2

**Ongoing:** 2

**Rupa Bandyopadhyay, Ph.D.** Professor

**Seminars/ Conferences/ Workshops Attended/ Organized/ Papers Presented/ Sessions Chaired:**

- Presented a paper entitled "Understanding Dharma" in a UGC sponsored National Seminar on "Values in Philosophy, Education and Sociology: Indian and Global Perspectives" organized by St. Paul's Cathedral Mission College, Kolkata, in collaboration with Environs Safe Organization, Kolkata during January 09-10, 2017.
- Presented a paper entitled "Actions without Desire: A Review of the Concept of Niskāma Karma from the Advaita Perspective" in a National Seminar on "Different Interpretations of Gita" organized by the Centre for Sri Aurobindo Studies, Department of Philosophy, Jadavpur University during January 27-28, 2017.
- Chaired an academic session in a UGC-CAS seminar on "Gender and Ethics in the Epics" to commemorate the World Philosophy Day 2016 on December 22, 2016.
- Delivered a lecture on the Concept of Liberation in a course on "Some Fundamental Concepts of Indian Philosophy" organized by the Ramakrishna Mission Institute of Culture, Golpark, Kolkata on June 1, 2016.
- Delivered a lecture on the "Mīmāṃsā Theories of Sentence-Meaning" at the Department of Philosophy, Presidency University on September 28, 2016.
- Acted as a chairperson in the Two day State level Seminar on Binaries and Beyond on 29<sup>th</sup> & 30<sup>th</sup> March, 2017, organized by the Department of Philosophy, Jadavpur University.

**Ph.D. Supervision**

Submitted 1

Ongoing 4

**M.Phil. Supervision**

Awarded – 01

**Madhumita Chattopadhyay, Ph.D.** Professor

**Seminars/ Conferences/ Workshops Attended/ Organized/ Papers Presented:**

**Seminars Organized:**

- Organized a two-day National Seminar on "The Concept of Body in Indian Philosophy" for Young Scholars on behalf of the ICPR Center for Buddhist Studies on 15<sup>th</sup> and 16<sup>th</sup> September 2016.



### Annual Report 2016-17

- Organized a Three-Day International Seminar on “Logic, Ethics and Epics: Homage to Professor Bimal Krishna Matilal” to commemorate the 25<sup>th</sup> death anniversary of Professor Bimal Krishna Matilal on 27<sup>th</sup> to 29<sup>th</sup> December 2016 jointly with Gargi Goswami and Prof. Amita Chatterjee.
- Presented a paper on “Conflict Management as found in Buddhist Literature” at a 3-day International Seminar on ‘*Contemporary Challenges and Pali-Prakrit and Buddhist Literature*’ on 2<sup>nd</sup> December, 2016 organized by Sri Sitaram Vaidic Adarsha Sanskrit Mahavidyalaya, Kolkata
- Presented a paper on “*Svadharmā* in the light of Bankimchandra” at a National Seminar on “Interpretations of *Bhagavadgītā*” organized by the Center of Sri Aurobindo Studies, Department of Philosophy, on 28<sup>th</sup> January 2017.
- Presented a paper on “Logic of the *Mūlamadhyamakāśāstra*” at a One-day National Symposium on “*Mūlamadhyamakāśāstra* of Nāgārjuna” organized by The Indian Institute of World Culture in collaboration with Pali Institute, Gulbarga, Bengaluru, on 5<sup>th</sup> March 2017.
- Presented a paper on “The Contribution of Rahul Sankrityayana” at a National Seminar on “Contemporary Thinkers” organized by the Department of Philosophy and Life World, Vidyasagar University on 8<sup>th</sup> March 2017.
- Presented a paper on “Buddhist Economics” at 3-Day International Conference on the theme “Buddhism in the 21<sup>st</sup> Century—Perspectives and Responses to Global Challenges and Crises” organized by the Ministry of Culture, Government of India, at Nava NalandaMahavihara, Nalanda, Bihar from 17<sup>th</sup> to 19<sup>th</sup> March 2017
- Presented a paper on “Vasubandhu’s views of Linguistic Items” at the 6<sup>th</sup> International Buddhist Academic Conference on the theme “ Theravāda and Buddhaghosa: Problems of Identification, Interpretation and Continuation” organized by Sri Lanka Association of Buddhist Studies in association with Buddhist and Pali University of Sri Lanka on 2<sup>nd</sup> July 2016.
- Delivered 13 lectures on the following topics , “Indian Logic”, “Logic in Pali texts”. “Logic of the *Mādhyamikas*”, “Logic of Nāgārjuna”, “Svatantra Method in Logic”, “Prasanga method in logic”, “Reading the text “*Gatāgataparīkṣā* from both standpoints”, “Development of Systematic Logic: Vasubandhu”, “Development of Buddhist Logic: Dignāga”, “Dignāga: Nyāyamukha”, “Hetucakradamaru”, “Introducing the logic of Dharmakīrti” and “Logic of the debate tradition” in the 10 day Workshop on Buddhist Logic conducted by the Ramakrishna Mission Institute of Culture from 20<sup>th</sup> June to 30<sup>th</sup> June 2016.
- Delivered a lecture on “Contribution of Nāgārjuna to Indian Logic” at a workshop on Logic organized jointly by the School of Cognitive Science, Jadavpur University, Calcutta Logic Circle on 26<sup>th</sup> August 2016.
- Presented a paper on “Economic Elements as looked upon by the Buddhists” at a Two-Day National Seminar on the theme “Buddhism and Life” organized by the Center for Buddhism, Department of Philosophy, North Bengal University on 27<sup>th</sup> March 2017.
- Organized a Two-Day State level seminar on “Binaries and Beyond” jointly on 29<sup>th</sup> and 30<sup>th</sup> March 2017 jointly with Dr Gopinath Mondal.

**Publication details:**

**Books**

**Forthcoming –**

*Buddhist Logic: Its Development through the Ages*

**Articles Published-**

“Rāhula Sankrityāyaner jīban o darśan: Ekti saṅkṣipta pratibedan” in *Parikathā*, XIXth Year 1<sup>st</sup> Issue, December 2016

**Forthcoming-**

A chapter on “Introduction to Buddhist Logic” to the *Handbook of Indian Logic*, ed by Sundar Sarukkai, going to be published from Springer.

“*Var Gadharma: from the perspective of a Contemporary Indian Thinker*” to be published in an anthology on *Value*

**Ph.D Supervision:**

**Awarded:** 1

**Ongoing:** 7

**M.Phil Supervision:**

**Awarded:** 1

**Ongoing:** 2

**Any Other Relevant Information:**

At present serving as the Editor of *Jadavpur Journal of Philosophy and Darśan-Bīkṣā*.

Working as the Coordinator of ICPR Center for Buddhist Studies, Department of Philosophy, Jadavpur University.

**Gangadhar Kar, Ph.D. Professor**

**Seminars/Symposium/Conferences/Workshops Attended/Organized:**

- Delivered a lecture on “Nyasastrasya Sastrantarapaksetivam” in the Seminar on “Sastrasyasastrantarapeksitvam” organized by West Bengal State University on 22<sup>nd</sup> March 2016.
- Delivered a lecture on “Nyayavaishesika darsane Jatibicarh” held at Ghatal Rabindra Shatabarshiki Mahavidyalaya on 5<sup>th</sup> August, 2016.
- Chaired a session as a Guest of Honour in the International Workshop on Oriental Heritage, Astrological and Spiritual sciences, Organized by Kaalchakra Astrological Education and Research Foundation on 24<sup>th</sup> September, 2016.
- Delivered a lecture in the UGC-Sponsored National Seminar, in collaboration with Department of Sanskrit., Bajkul Milani Mahavidyalaya on “Shatsandarbha: The Source of Bengali Vaishnavism” held at Prabhat Kumar College, Contai on 28<sup>th</sup> September, 2016.
- Chaired a session in the seminar on “ The Concept of Body in Buddhist Philosophy and Culture”, organized by the Department of Philosophy, Jadavpur university on 3<sup>rd</sup> October, 2016.
- Participated as a judge in the State-Level Elocution Contest organized by Sri Sitaram Vaidik Adarsha Sanskrit Mahavidyalaya held on 17<sup>th</sup> November, 2016.

### **Annual Report 2016-17**

- Acted as a Resource Person in the ICPR sponsored State-Level Seminar held at Vidyasagar University on 15<sup>th</sup> December, 2016.
- Delivered a lecture in the ICPR-Sponsored State Level Seminar organized by Vidyasagar University on “Critical Thinking and Philosophizing” on 15<sup>th</sup> December, 2016.
- Acted as a Resource Person in the UGC-sponsored National Seminar on “The Sanskrit and Bengali Literature in the light of Philosophy : From Source to Modernization”, held at Rampurhat College during 18<sup>th</sup>-19<sup>th</sup> December 2016.
- Chaired a session in the UGC-CAS Seminar on Gender and Ethics in the Epics organized by the Department of Philosophy, Jadavpur University on 22<sup>nd</sup> December, 2016
- Presented a paper titled “Nyayanaye Nampadasya Arthavicarah” in the international Seminar on “Logic, Ethics and Epics: Homage to Professor Bimal Krishna Matilal” organized by ICPR Centre for Buddhist studies, Department of Philosophy, Jadavpur University on 27<sup>th</sup> December 2016
- Chaired a session in the national Seminar on “Different Interpretations of Gita” organized by the Centre for Aurobindo Studies, Department of Philosophy, Jadavpur University On 28<sup>th</sup> January. 2017
- Participated as a judge in the 80<sup>th</sup> All India Sanskrit Conference organized by Howrah Sanskrit Samaj on 28<sup>th</sup> January 2017.
- Delivered a lecture in the seminar on “Shastresu Shabdarthasambandha” organized by Ramkrishna Mission Vidyamandira, Belur Math on 7<sup>th</sup> February, 2017
- Invited to act as a resource person in the 10-day National Level Research Oriented Workshop on Bhasaparccheda (Anumankhandam) organized by Ramkrishna Mission Vidyamandir, Belur Math on the following dates 21,25, 28<sup>th</sup> March 2017 and 1,4,8,11,18,22 & 25<sup>th</sup> April 2017.
- Acted as a Resource Person in the 62<sup>nd</sup> Orientation Programme organized by UGC-HRDC at Jadavpur University, Saltlake Campus on 24<sup>th</sup> June 2016
- Delivered a lecture in the Workshop on Sabdabodha-Prakriya dated 27<sup>th</sup> March, 2017 organized by The Ramkrishna Mission Institute of Culture.
- Delivered a lecture in the Workshop on Nyaya-Vaisheshika Philosophy, Sabdabodha-Prakriya dated 29<sup>th</sup> March, 2017 organized by The Ramkrishna Mission Institute of Culture.
- Delivered lectures in the series of ten days workshop on Bhasaparccheda (Anumankhandam) dated 21<sup>st</sup>, 25<sup>th</sup> and 28<sup>th</sup> March, 2017 organized by Belur Vidyamandir.

#### **Publication Details:**

**Article:** ‘Vivekananda Vedanta Bhabana’, in the book *Ajanta Manush Vivekananda*, edited by Bishnupada Nanda, Published by the Department of Education, Jadavpur University, 12/01/2017.

#### **Ph.D supervision**

Ongoing: 3

#### **M.Phil Supervision:**

Ongoing: 1

**Atashee Chatterjee Sinha, Ph.D.**

**Professor and Head of the Department**

**Seminars/ Conferences/ Workshops Attended/ Organized/ Papers Presented:**

- Presented a paper on “Freedom” at the University of Calcutta on 16<sup>th</sup> March, 2017
- Delivered a series of lectures on “Logical Positivism and Beyond” at ICSSR, Patuli from March 15<sup>th</sup> to March 30<sup>th</sup>.
- Acted as a chairperson in the Two day State level Seminar on Binaries and Beyond on 29<sup>th</sup> & 30<sup>th</sup> March, 2017, organized by the Department of Philosophy, Jadavpur University.

**Publication Details:**

**Books, Journals, Articles, Chapters**

**Published-Forthcoming-**

**Article** “ Deha, rastra o naitikata bishoye naribadi tattvakatham” in a Bengali anthology “Darshanik Tattvayane Naribad: Bhinna Manane Bichitra Alap” from Ebong Mushayera. (in Press)

**Ph.D Supervision:**

Submitted: 1, Registered: 7

**M.Phil Supervision:**

Ongoing: 02

**Any Other Relevant Information:**

- i) Member of Ethics Committee of AMRI Hospitals, Dhakuria and Mukundapur.
- ii) Member of Executive Council, Jadavpur University
- iii) Associate Editor of *Darśan-Bīkṣā*.

**Proyash Sarkar, Ph.D.** Professor

**Seminars/Conferences/Workshops Attended/Organized/Papers Presented:**

- 19-21 April 2016, Delivered a lecture on ‘Ambedkar on the Emancipation of the Untouchables,’ at an ICPR sponsored national seminar on ‘Caste Marginalization and Emancipation: A socio-Philosophical Perspective’ organized by Santhigiri Institute of Culture and Human Development, Thiruvananthapuram.
- 19-21 April 2016, chaired a session at an ICPR sponsored national seminar on ‘Caste Marginalization and Emancipation: A socio-Philosophical Perspective’ organized by Santhigiri Institute of Culture and Human Development, Thiruvananthapuram.
- 27-29 December 2016, Chaired a session at an International Seminar on ‘Logic, Ethics and Epics: Homage to Professor Bimal Krishna Matilal’ organized by the ICPR Centre for Buddhist Studies, Jadavpur University.
- 7th-8th March, 2017 invited to chair a session at a UGC sponsored National Seminar on ‘Approaches to the Real in Contemporary India’ organized by the Centre of Advanced Study, Jadavpur University.

**2. Publication Details:**

**Books, Journals, Articles, Chapters**

**Published-Forthcoming:**

- Contributed an article on ‘Emergentism’ to UGC-*epathshala* on the *Philosophy of Mind*.

**Annual Report 2016-17**

- Contributed an article on ‘The Philosophy of *Baul*’ to UGC-*epathshala* on *Religion*.
- ‘Ambedkar on the Emancipation of the Untouchables’ in an anthology on *Caste, Marginalization and Emancipation: A Socio-Philosophical Perspective* to be published by Santhigiri Institute of Culture & Human Development, Thiruvananthapuram

**3. Ph.D Supervision:**

**a. Submitted:**

**b. Registered:                   7**

**4. M.Phil Supervision:**

**a. Awarded: 1**

**b. Ongoing: 1**

**5. Any Other Relevant Information:**

Acting as the Deputy Coordinator of the Centre of Advanced Study in Philosophy, Jadavpur University.

**Lopamudra Choudhury, Ph.D.** Professor

**Seminars/ Conferences/ Workshops Attended/ Organized/ Papers Presented:**

- Presented a paper on Professor Pahi’s Contribution to Formal Logic, International Seminar on Philosophical Contributions of Professor Pahi, University of Rajasthan, Jaipur 13.03.16
- Presented a paper on The living dead, some ethical issues, National Seminar on Ethical issues concerning life and death, Samsi College, Samsi , 23<sup>rd</sup>- 24<sup>th</sup> July, 2016
- Presented a paper on A non-classical diagram system with presence and absence of individuals, in the 2<sup>nd</sup> Indian Winter School on diagrams from 13<sup>th</sup> – 17<sup>th</sup> February, 2017
- Organized a one day Seminar on Nyāya Philosophy: Commemoration of 100 years of Paṇḍit Viswabandhu Bhaṭṭācārya’ on 15<sup>th</sup> September 2016.
- Organized a five day long Winter School: 2<sup>nd</sup> Indian Winter School on diagrams, 2017 from 13<sup>th</sup> – 17<sup>th</sup> February, 2017
- Acted as a chairperson in the Two day State level Seminar on Binaries and Beyond on 29<sup>th</sup> & 30<sup>th</sup> March, 2017, organized by the Department of Philosophy, Jadavpur University.
- “Unfaithful Memory” presented at the National seminar on Mind and Memory: An Inquiry into the Nature of Cognition, 20<sup>th</sup>-22<sup>nd</sup> March 2017, Hyderabad University, Hyderabad 20<sup>th</sup> March 2017

**Special Lectures Delivered:**

- “Cognition of the Blind”, Hyderabad University, 17<sup>th</sup> March, 2017
- “An Attempt to Understand Cognition and Depression: First Person Account”, Hyderabad University, 18<sup>th</sup> March, 2017

**Publications : Paper Published**

- Lopamudra Choudhury & Mihir Kumar Chakraborty, **Singular Propositions, Negation and the Square of Opposition**, Published online: 24 March 2016, *Logica Universalis* (Copyright 2016 Springer International Publishing)

**Annual Report 2016-17**

- Nairrita Bhattacharya & Lopamudra Choudhury, **Use of Modality in Concept Formation: A Study on the Visually Challenged**, *International Journal of Dravidian Linguistics* (IJDL, ISSN No. 0378-2484), Vol. 45 No. 1, January 2016, Page No. 84-96
- Nairrita Bhattacharya & Lopamudra Choudhury, **Consolidation of Concepts in the Visually Challenged and the Sighted Individuals with Special Reference to Onomatopoeic Words**, *Procedia Computer Science* 84 ( 2016 ) 186 – 191
- Jim Burton, Mihir Chakraborty, Lopamudra Choudhury, and Gem Stapleton, **Minimizing Clutter Using Absence in Venn-i,e; Proceedings of Diagrams 2016**, Springer

**Ph.D Supervision:**

**Submitted: 1**

**Ongoing: 4**

**M.Phil Supervision:**

**Awarded:1**

**Ongoing: 4**

**Any Other Information:**

- Principle Investigator of the National Centre for Perception Engineering-II at the School of Cognitive Science, supported by the Ministry of Information Technology in collaboration with CEERI Pilani, IIT Delhi, IIT Mumbai, IIIT Hyderabad, NBRC.
- Acting as Joint Coordinator of the UGC, UPE-II in Cognitive Science.

**Sashinungla, Ph.D. Professor**

**Seminars/Conferences/Workshops Attended/Presented:**

- Presented a paper “Defining a tribal episteme(s)” at the ICPR National Seminar on *The Tribes of North East India: Exploring Identities, Culture, Politics and Philosophy* to be held on the 9-11th of March, 2017, Department of Philosophy, Janki Devi Memorial College, New Delhi.
- Coordinated the UGC National Visiting Lecture Series delivered by Professor S. Lourdunathan, Arul Anandar College (Autonomous) from 9<sup>th</sup> to 14<sup>th</sup> January 2017 on “Social Epistemology and Liberation Philosophy” at the Department of Philosophy, Jadavpur University, Kolkata.

**Publication Details:**

- “Thinking, Looking and Acting: Beyond East and Southeast to the ‘Other Asia’”, *Third World Quarterly* (forthcoming).
- “India’s Foreign Policy and Domestic Compulsions: Theorizing the Margins of Exclusion”, in *The Interface of Domestic and International Factors in India’s Foreign Policy*, Sage Publications, eds., Johannes Dragsbaek Schmidt and Shantanu Chakrabarti (Forthcoming)

**PhD Supervision:**

**Registered: 03**

**1. Group Research/Reading Projects (if any):**

- Value
- Feminist philosophy



**2. Any Other Relevant Information:**

- Associate Editor, *Jadavpur Journal of Philosophy*
- Associate Editor, *Journal of General Philosophy* [published by Springer]
- Acted as special Article Editor for the *SAGE Open Journal*.

**Aparajita Mukherjee, Ph.D.** Professor

**Seminars/Conferences/Workshops Attended/Organized/Papers Presented:**

1. Presented paper 'Nature of moral Dilemma' in an International Seminar on *Ethics, Epics & Logic: Homage to Professor Bimal Krishna Matilal*, organized by the ICPR Centre for Buddhist Studies, Jadavpur University on 28<sup>th</sup> December 2016
2. Delivered lecture on the book *Through the Lens of Dharma-Ethics* in the program *Author Meets the Critic*, organized by the Department of Philosophy, Rabindra Bharati University on 8<sup>th</sup> February 2017
3. Delivered lecture on 'Moral Agency' in a Refresher course on *Behavioral Sciences*, organized by the Department of Anthropology, University of Calcutta on 17<sup>th</sup> February 2017
4. A session was chaired in a two-day National Seminar on 'The Concept of Body in Buddhist Philosophy and Culture' organized by the ICPR Centre for Buddhist Studies, Jadavpur University on 4<sup>th</sup> October 2016.
5. Delivered a special lecture on 'Democratic State' in Basanti Devi College, Kolkata on 31<sup>st</sup> March 2017
6. Organized two-day National Seminar on *Different Interpretations of Gītā* on 27<sup>th</sup>& 28<sup>th</sup> January 2017 with Sm Gargi Goswami
7. Organised a UGC sponsored Two-Day National Seminar on "Philosophy and Culture" jointly with Sm Rubai Saha on 21<sup>st</sup> and 22<sup>nd</sup> March, 2017.
8. Acted as a chairperson in the Two day State level Seminar on Binaries and Beyond on 29<sup>th</sup> & 30<sup>th</sup> March, 2017, organized by the Department of Philosophy, Jadavpur University.

**Ph.D Supervision:**

Submitted: 01

Registered: 04

**Soumitra Basu, Ph.D.**

Associate Professor

**Seminars/Conferences/Workshops Attended/Organized/Papers Presented:**

- Delivered two lectures in refresher course on 'Studies in Peace and Conflict' organized by UGC HRDC, University of North Bengal in January 2017.
- Delivered Pratima Sen Memorial Lecture at Jogamaya Devi College, Kolkata on 18<sup>th</sup> January, 2017 on the theme 'Bhalo Thaka, Bhalo Rakha: Ekti Monodarshanik Paryalocana'.
- Presented a Paper in the National Seminar on 'Philosophy and Culture' to be organized by the Centre for Sri Aurobindo Studies in March 2017.
- Organized National Seminar on 'Approaches to the Real in Contemporary India' (Jointly with Dr. Maitreyee Datta) held during 7<sup>th</sup>-8<sup>th</sup> March, 2017 under CAS in Philosophy, Jadavpur University.
- Chaired a session in the National Seminar on 'Different Interpretations of Gita' organized by Centre for Sri Aurobindo Studies, Jadavpur University during 27<sup>th</sup>-28<sup>th</sup> January, 2017.



**Annual Report 2016-17**

- Chaired a session in State Level Seminar on 'The Philosophy of Leibnitz' organized by the Department of Philosophy, RBU on 15<sup>th</sup> March, 2017.
- Acted as a chairperson in the Two day State level Seminar on Binaries and Beyond on 29<sup>th</sup> & 30<sup>th</sup> March, 2017, organized by the Department of Philosophy, Jadavpur University.

**Publication Details: Books, Journals, Articles, Chapters: (Forthcoming)**

- 'When Morality is a Threat to Existence' in an anthology entitled *Morality and Existence* to be published by the Department of Philosophy, Gour Banga University.

**Ph.D Supervision:**

Submitted:	1
Ongoing:	8

**M.Phil Supervision:**

On-going:	1
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**Jhuma Chakraborty, Ph.D.** Associate Professor

**Seminars/Conferences/Workshops Attended/Organized:**

- Delivered a lecture on 'Ethics and Value education' in Bethune College on 19<sup>th</sup> Jan, 2017.
- Chaired in a national seminar organized by Maharaja Manindra Chandra College, on 'Relevance of Ambedkar and Gandhi in Contemporary India' on 8<sup>th</sup> feb, 2017.
- Delivered a lecture on 'Mohanty on the dialogue between Tagore and Einstein' in a two day national Seminar, to be organized by the department of philosophy on 'Approaches to the Real in Contemporary India', under CAS scheme, on 8<sup>th</sup> March, 2017.
- Acted as a chairperson in the Two day State level Seminar on Binaries and Beyond on 29<sup>th</sup> & 30<sup>th</sup> March, 2017, organized by the Department of Philosophy, Jadavpur University.

**Publication Details:**

**Forthcoming:**

- 'Womens in Today's world' to be published by Sociology Department, in the journal 'Social Trends' North Bengal University.
- 'Ethics and Epics' to be published by Muralidhar College, Kolkata.

**Ph.D Supervision:**

<b>Ongoing:</b>	3
<b>Submitted:</b>	1

**M.Phil Supervision:**

Awarded:	1
Ongoing:	2

**Dipayan Pattanayak** : Associate professor

**Seminars/Conferences/Workshops Attended/Organized/Papers Presented:**

- Delivered lecture as resource person in a state level seminar on 'Nyaya Epistemology' at Agharkamini Mahavidyalaya on 7<sup>th</sup> December, 2016.

### **Annual Report 2016-17**

- Delivered lecture as resource person on the occasion of the birth centenary of Swami Vivekananda on 'The character formation of the student and youth' on 12<sup>th</sup> January, 2017..
- Delivered lecture as resource person in a National Seminar on "Relevance of Indian Philosophy in the 21<sup>st</sup> Century" organized by the department of Philosophy, Netaji Mahavidyalaya dated 2<sup>nd</sup> March 2017.
- Delivered lecture as resource person in a National Seminar on "Approaches to the Real in Contemporary India" organized by the department of philosophy, Jadavpur University dated 8<sup>th</sup> March, 2017.
- Delivered lecture as resource person on "Quest for the true religion" organized by the department of Philosophy, Bolpur Mahavidyalaya dated 9<sup>th</sup> March, 2017.
- Delivered lecture as resource person on "Ascertainment of the Validity of Knowledge: Nyâya perspective" organized by the department of Philosophy, Sreegopal Banerjee College dated 14<sup>th</sup> March, 2017.
- Presented a paper in a National Seminar entitled "Knowledge and Reality" organized by the department of Philosophy, The University of Burdwan dated 24<sup>th</sup> March, 2017.
- Presented a paper in a National Seminar entitled "Theoretical and Practical Issues relating to the Concept of Dharma" organized by the department of Philosophy, Manipur University dated 30<sup>th</sup> March, 2017.

#### **Publication Details:**

##### **Books, Journals, Articles, Chapters**

##### **Forthcoming:**

- An article entitled 'Why Should one act unto other' in Ethics and Culture.
- An article entitled 'Man as a being in the world; A study of Vivekananda's position', in the journal of contemporary Indian Philosophy Group.

#### **M.Phil Supervision:**

Awarded:1

On-going:2

**Any Other Relevant Information:** Submitted Ph.D thesis

**Maushumi Guha, Ph.D.** Associate Professor

##### **Seminars/ Conferences/Workshops Attended/Organized/Papers Presented/Sessions Chaired:**

- Delivered a talk on 'Leibniz's Philosophy of Mind' at a One-Day Seminar on 'The Philosophical Contributions of Leibniz' held at the Department of Philosophy, Rabindra Bharati University, Kolkata, 15<sup>th</sup> March 2017.
- Attended International Conference on Fronto-Temporal Dementia in Asia organized by the Department of Cognitive Neurology, Apollo Gleneagles Hospitals, Kolkata, January 14-15, 2017.
- Organised UGC-CAS World Philosophy Day 2016 on 22<sup>nd</sup> December 2016 (jointly with Dr. Gopinath Mondal).
- Organised Pranab Kumar Sen Memorial Award Ceremony 2016 on 22<sup>nd</sup> December 2016 (jointly with Dr. Gopinath Mondal).

### **Annual Report 2016-17**

- Delivered a lecture titled, 'Research Design', at the Department of Sanskrit, Jadavpur University, Kolkata, 27th September, 2016.
- Delivered a Lecture titled, 'Knowing Other Minds' at the Department of Philosophy, Presidency University, 9th September 2016
- Acted as a speaker in the Two day State level Seminar on Binaries and Beyond on 29<sup>th</sup> & 30<sup>th</sup> March, 2017, organized by the Department of Philosophy, Jadavpur University.

#### **Publication Details:**

##### **Books, Journals, Articles, Chapters**

###### **Published**

Book Review of *Human Action, Consciousness, and Problems of Representation*, Geeta Ramana, Oxford University Press, New Delhi, India, 2014. In the *Jadavpur Journal of Philosophy*, Volume 25, Number 1.

#### **3. Ph.D Supervision:**

a. Submitted:

b. Registered:

5

#### **4. M.Phil Supervision:**

a. Awarded:

b. On-going:

1 + 2

#### **5. Any Other Relevant Information:**

Performed Convocation Duty on behalf of the Department of Philosophy at the Special Convocation and 61<sup>st</sup> Annual Convocation 24.12.2016

**Arun Mahata** : Associate Professor

##### **Seminars/Conferences/Workshops Attended/Organized/Papers Presented:**

- Attended One-day State-level Seminar on Nyaya Philosophy: Commemoration of 100 years of Pandit Viswabandhu Bhattacharya, Organized by the Department of Philosophy, Jadavpur University on 15<sup>th</sup> September, 2016.
- Attended two-day State-level Seminar on The concept of Body in Buddhist Philosophy and Culture, organized by The ICPR Centre for Buddhist Studies, Department of Philosophy, Jadavpur University on 3<sup>rd</sup>& 4<sup>th</sup> October, 2016.
- Attended one-day Regional Level Seminar on Gender Session in the Epics on the occasion of World Philosophy Day, 2016 organized by Department of Philosophy, Jadavpur University on 22<sup>nd</sup> December, 2016.
- Attended three-day International Seminar on Logic, Ethics & Epics: Homage to Professor Bimal Krishna Matilal organized by The ICPR Centre for Buddhist Studies, Department of Philosophy, Jadavpur University from 27<sup>th</sup> to 29<sup>th</sup> December, 2016
- Attended two-day National Seminar on Different Interpretations of Gita organized by Centre for Sri Aurobindo Studies, Department of Philosophy, Jadavpur University from 27<sup>th</sup>& 28<sup>th</sup> January, 2017.

**Publication Details:**

**Books, Journals, Articles, Chapters**

**Forthcoming:**

**Article:** Chhou Artist Gambhir Singh Mura: His Life and Philosophy, *Ethics and Culture, Volume-III*, Department of Philosophy, Jadavpur University, March, 2017

**M.Phil Supervision:**

**Awarded:** 2

**Ongoing:** 2

**Any Other Relevant Information:**

Member of The Asiatic Society, Kolkata-700016 from 13<sup>th</sup> February, 2017

**Maitreyee Datta, Ph.D. :** Associate Professor

**Seminars/ Conferences/Workshops Attended/Organized/Papers Presented:**

- Acted as a resource person at a workshop in Buddhist Logic organized by Ramakrishna Mission Institute of Culture held on June 20-30, 2016.
- Chaired a session at the National Seminar organized by Centre for Sri Aurobindo Studies, Department of Philosophy, Jadavpur University held on 27 & 28 January, 2017.
- Acted as a chairperson in the Two day State level Seminar on Binaries and Beyond on 29<sup>th</sup> & 30<sup>th</sup> March, 2017, organized by the Department of Philosophy, Jadavpur University.

**Publication Details:**

**Books, Journals, Articles, Chapters**

**Published**

The following modules of Philosophy of Science paper of PG E-Pathshala project, UGC sponsored project in Philosophy

- Science and Pseudo-science (Module-29)
- Philosophy of Physics I (Module-32)
- Philosophy of Physics II (Module-33)

**Ph.D Supervision:**

Submitted:

Registered: 5

**M.Phil Supervision:**

Awarded: 5

On-going: 1

**Sm Rubai Saha :** Assistant Professor

**Seminars/ Conferences/Workshops Attended/Organized/Papers Presented:**

- Attended a 10-day workshop on Buddhist Logic conducted by the Ramakrishna Mission Institute of Culture, Golpark, from 20<sup>th</sup> June to 30<sup>th</sup> June, 2016.

### **Annual Report 2016-17**

- Presented a paper on : The Caste System in the Gita and Ambedkar” on 14<sup>th</sup> February, 2017 at Sidho-Kanho-Birsha University, Purulia, West Bengal at an ICPR (MHRD) sponsored Two Day National Seminar on A RESUME OF THE WORKS OF DR. B.R. AMBEDKAR.
- Presented a paper on “ Influence of Vedanta on the philosophy of Sri Ramakrishna” in Vidyasagar University, Paschim Medinipur, West Bengal on 8<sup>th</sup> March, 2017 at a Two Day National Seminar on “Modern Trends in Indian Philosophy” organized by the Department of Philosophy and the Life-world, Vidyasagar University on 8<sup>th</sup> March, 2017.
- Organised a UGC sponsored Two–Day National Seminar on “Philosophy and Culture” jointly with Professor Aparajita Mukhopadhyay on 21<sup>st</sup> and 22<sup>nd</sup> March, 2017.

#### **Publication Details:**

An article entitled “Bhakti Yoga: Interpretation of Swami Vivekananda” is published in the International Journal of Integrated Research and Development in December, 2016 (ISSN: 2278-8670)

#### **Report of Group Projects**

A chapter entitled “Acharya Swami Pranavananda: His message in Nation-Building” will be published in the anthology Ethics and Culture, Vol-3 within March, 2017

**Samar K. Mondal, Ph.D.** : Assistant Professor

#### **Seminars/Conferences/Workshops Attended/Organized/Papers Presented:**

- Presented a paper, “Twentieth Century Philosophy: Western” in a State Level Seminar, “Twentieth Century Philosophy: Western” at Bankura Christian College during 8<sup>th</sup> September, 2016.
- Presented a paper, “Mother Tongue and Higher Education: A Critical Analysis” in a International Level Seminar, “Higher Education, Universities and Excellence: The Bengal Narrative” at Jadavpur University during 20-21<sup>st</sup> December, 2016.
- Presented a paper “Gender Discrimination: A Philosophical Analysis” in a State Level Seminar, “Existence of Discrimination among Men, Women and Third Sex: Historical Background and Present Day Reality” at Panchokot Mahavidyalaya during 4<sup>th</sup>-5<sup>th</sup> January, 2017.
- Presented a paper, “Unish Shotoke Banglar Jeebon Jignasa” in a International Seminar, “Bongosomaj”

#### **Publication Details:**

##### **Forthcoming**

Genesis of Violence from Psychological point of view (Bengali), Antorjatik Pathsala, ISSN: 2230-95942016 Vol-V Issue II & III(Accepted)

#### **Ph.D Supervision:**

**Ongoing: 2**

#### **M.Phil Supervision:**

**Awarded: 1**

**Ongoing: 1**

**Sm. Gargi Goswami** : Assistant Professor

#### **Seminars/Conferences/Workshops Attended/Organized/Papers Presented:**

- Organized a three day International Seminar on “Logic, Ethics& Epics: Homage To Prof Bimal Krishna Matilal from 27<sup>th</sup>-29<sup>th</sup> December, 2016 under ICPR Centre for Buddhist Studies, Dept of Philosophy, J.U.

### **Annual Report 2016-17**

- Organized a two day National seminar on “Different Interpretations of Gita” from 27<sup>th</sup>-28<sup>th</sup> January, 2017 **under Centre for Sri Aurobindo Studies, Dept of Philosophy, J.U.**
- Presented a paper entitled “Challenges of Cultural Relativism and Future of Feminist Relativism” in the National Seminar titled “Philosophy and Culture” held on 21st and 22nd March, 2017, organised by Centre for Sri Aurobindo Studies, Department of Philosophy, Jadavpur University.

#### **Publication Details:**

##### **Books, Journals, Articles, Chapters**

**Published-** “Marital Ethics: Revisiting Russell” in *Jadavpur Journal of Philosophy*, Vol.25 2015-16

#### **M.Phil Supervision:**

**Awarded:** 1

**Ongoing:** 1

#### **Dr. Gopi Nath Mondal : Assistant Professor**

##### **1. Seminars/Conferences/Workshops Attended/Organized/Papers Presented:**

- Organized UGC-CAS World Philosophy Day 2016 on 22<sup>nd</sup> December 2016 (jointly with Dr. Maushumi Guha).
- Organized Pranab Kumar Sen Memorial Award Ceremony 2016 on 22<sup>nd</sup> December 2016 (jointly with Dr. Maushumi Guha).
- Organized a one day Seminar on Nyāya Philosophy: Commemoration of 100 years of PaGdit Viswabandhu Bhattachārya’ on 15<sup>th</sup> September 2016 (jointly with Prof. Lopamudra Choudhury).
- Presented a paper in a National Seminar on “The Concept of Body in Indian Philosophy” for Young Scholars in behalf of the ICPR Center for Buddhist Studies on 15<sup>th</sup> and 16<sup>th</sup> September 2016.

#### **Any Other Relevant Information:**

Awarded Ph.D on 9<sup>th</sup> June 2016 from University of Milan, Italy.

#### **Madhucchanda Sen, Ph.D. : Assistant Professor**

##### **Seminars/Conferences/Workshops Attended/Organized/Papers Presented:**

Delivered lecture on ‘Self-Awareness – Asking the Right Questions’, Presidency University on 11<sup>th</sup> august,2016.

Delivered lecture on ‘Self-Awareness and Values’ at Prasanta Chandra Mahalanobish Mahavidyalaya on 10<sup>th</sup> December,2016.

#### **Publication Details:**

##### **Books, Journals, Articles, Chapters**

##### **Published**

##### **Forthcoming**

Writing a Book entitled Understanding Mind.

Writing a paper on Self awareness and the Taxonomy of Ganeri.

**Annual Report 2016-17**

**Ph.D Supervision:**

**Awarded: 2**

**Submitted: 2**

**Ongoing: 4**

**Any Other Relevant Information:**

Faculty Coordinator of the project E-QUAL of European Union. Under this project I have made 5 modules on an online course on critical thinking.

**PHYSICAL EDUCATION**

Phone : + 91- 33-2413-6786

Int. : 2457-2486

H.O.D. : Dr. Gopal Ch. Saha

E-mail : hod@phed.jduv.ac.in

hod.ph.ed@jadavpuruniversity.in

1. A. Courses Offered:
  - a. B.P.Ed.: 2years, student intake- 50/year
  - b. M.P.Ed.: 2 years, student intake- 40/year
  - c. P.G.D.Y.T: One and half year, student intake- 25
1. B. No. of Faculty Members: 06 whole time permanent ( 03 Professors and 03 Assistant Professor)
2. A.: Area of Research Activities: Exercise Physiology, Sports Biomechanics, Sports Management, Sports Psychology, Test and measurements in sports, Sports training
2. B.: Major Research Project: Nil

**PROFESSOR GOPAL CH. SAHA, H.O.D.**

**Published Works**

- 01 Combined effect of Dance and Fitness on Waist Hip Ratio of Sedentary Females. Bidya Roy, Dr. Gopal Chandra Saha (Corresponding author). Journal of Physical Education Research, Volume. 03, Issue III, September, 2016, pp:73-79, P-ISSN No-23944048, E-ISSN No-23944056, Impact Factor: 0.519
- 02 Akash Tatva Chikitsa through Fasting. Dr. Gopal Chandra Saha, Bidya Roy, International Journal of Yogic, Human Movement and Sports Sciences, Volume. 1, Issue 1, July-December, 2016, pp:70-73, ISSN No-2456-4419, Impact Factor(RJIF): 5.18
- 03 Comparison of Dynamic Balance between two legs of Three Growth Stages of Children Biswajit Dhali, Dr. Gopal Chandra Saha, International Journal of Physical Education, Sports and Health, Volume. 3, Issue 6, November-December, 2016, pp:385-388, ISSN No (Online)-2394-1630, ISSN No (Print)-2394-1685, Impact Factor (ISRA): 5.38
- 04 Comparison of Skill Related Physical Fitness of School Going Children, Tania Parvin Dr. Gopal Chandra Saha(Corresponding author), Indian Journal of Research in



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Multidisciplinary Studies (IJRMS), A National Level Peer Reviewed Journal. Volume 4, February, 2017, ISSN No. 2348-2524.

#### **Full paper published in the proceedings of Conference**

- 01 Zumba Toning on Waist Hip Ratio of middle aged Sedentary females. Bidya Roy Prof. Gopal Chandra Saha, National Seminar on Nutrition and Wellness The Physical Education Unit, Palli Siksha Bhavana, Visva-Bharati. 7<sup>th</sup> -8<sup>th</sup>, November 2016  
ISBN: 978-81-88904-88-4
- 02 Relationship between selected Anthropometric profiles and Kinesthetic Perception of School Children, Arumay Jana, Prof. Gopal Chandra Saha, National Seminar on Nutrition and Wellness, The Physical Education Unit, Palli Siksha Bhavana, Visva-Bharati, 7<sup>th</sup> -8<sup>th</sup>, November 2016. ISBN: 978-81-88904-88-4
- 03 Measuring the Level of Teaching Aptitude between B.Ed and B.PEd students. A Comparative Study, Sk Saha Alam Prof. Gopal Chandra Saha National Seminar on Nutrition and Wellness The Physical Education Unit, Palli Siksha Bhavana, Visva-Bharati. 7<sup>th</sup> -8<sup>th</sup>, November 2016. ISBN: 978-81-88904-88-4
- 04 Comparison of Body Composition between Tribals of Hills and Dooars region Bhusan Adhikary, Prof. Gopal Chandra Saha, National Seminar on Nutrition and Wellness The Physical Education Unit, Palli Siksha Bhavana, Visva-Bharati. 7<sup>th</sup> -8<sup>th</sup>, November 2016  
ISBN: 978-81-88904-88-4

#### **Details of invitation for delivering Lectures / Chairing Session in Conferences/ Seminars / Symposia. (Other than the part of academic curriculum)**

- 01 National Seminar on Issues and Challenges in Physical education and Sports Sciences. Dept. of Physical Education, Vinaya-Bhavana, Visva-Bharati, Santiniketan and Alumni Committee, Dept. of Physical Education, Vinaya-Bhavana Issues and Challenges of Gender Equality and Women Empowerment in Sports, June 25 -26, 2016 National Resource Person
- 02 Two Day National Conference on New Horizons of Physical Education and Exercise Sciences, in the 21<sup>st</sup> century, Department of Physical Education, Burdwan University New Horizons of Physical Education and Exercise Sciences, in the 21<sup>st</sup> Century September 20<sup>th</sup> – 21<sup>nd</sup> 2016. National Chairing Session As Co-Chairperson
- 03 National Seminar on Nutrition and Wellness, The Physical Education Unit, Palli Siksha Bhavana, Visva-Bharati, Performance Nutrition for growing Athletes, November 7<sup>th</sup> -8<sup>th</sup>, 2016. National, Lead Speaker
- 04 National Seminar on Nutrition and Wellness. The Physical Education Unit, Palli Siksha Bhavana, Visva-Bharati, Nutrition and Wellness. November 7<sup>th</sup> -8<sup>th</sup>, 2016. National, Chairing Session As Chairperson

#### **Prof. Sudip Sundar Das**

#### **Attended and Paper Presented, Chaired in the National and International Conference/Workshop and performed other activities**

Sl.No. Date Title of the Seminar/conference/Venue of Workshops/ Seminars/ Conferences & others/ Presented/ Attended/ Chaired

- 01 15<sup>th</sup> - 17<sup>th</sup> June, 2016, State Level Workshop on Revision of B.PEd. & M.PEd. Programmes as per NCTE New Regulation 2014. Deptt. of Phy. Edn., Jadavpur University, Acted as Member of the Org. Committee
- 02 11<sup>th</sup> & 12<sup>th</sup> Nov, 2016, National Seminar on Psychosocial. Perspectives of Physical Education, Deptt. of Phy. Edn., Mugberia Gangadhar Mahavidyalaya, Speaker 3 'Social Perspectives of Physical Education' & Chaired in a Scientific Session

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- 03 24 Dec., 2016, College Seminar, Sri Gopal Banerjee College, Bagati, Hooghly. Invited Lecturer on Physical Education for Social Adjustment
- 04 8<sup>th</sup>-10<sup>th</sup>Dec, 2016, 2-Day International Seminar on 'New Frontiers of Research in Physical Education and Sports Science', Deptt. of Phy. Edn. and Sports Science, Jessore University of Science and Technology, Bangladesh. Lead- Speaker on 'Technological Development in Sports and Human Performance' & Co-Chaired in the Scientific Session
- 05 20.02.2017, Felicitation Programme for 60 yrs celebration of the University. Jadavpur University, Felicitated as Prestigious Alumni
- 06 19 March, 2017, Pannel Discussion on Yoga in the Rural India, Ramakrishna Mission Vivekananda University, Belur, Pannelist
- 07 27<sup>th</sup> Feb to 3<sup>rd</sup> March, 2016, Member of the Expert Committee Members for 'Midterm Monitoring of Construction of Sports Infrastructure', Different Colleges under Aizwal University, Acted as Member nominated by UGC

#### **Prof. Ashoke Kumar Biswas**

#### **Attended and Paper Presented, Chaired in the National and International Conference/Workshop and performed other activities**

Sl.No./Date/Title of the Seminar/conference/Venue of Workshops/ Seminars/ Conferences & others/Presented/Attended/Chaired

- 01 15<sup>th</sup> - 17<sup>th</sup> June, 2016, State Level Workshop on Revision of B.P.Ed. & M.P.Ed. Programmes as per NCTE New Regulation 2014. Deptt. of Phy. Edn., Jadavpur University, Acted as Organiser (Organising Secretary)
- 02 11<sup>th</sup>& 12<sup>th</sup> Nov, 2016, National Seminar on Psychosocial Perspective of Physical Education. Deptt. of Phy. Edn., Mugberia Gangadhar Mahavidyalaya. 'Psychological Factors Affecting Sports Performance'
- 03 11<sup>th</sup>& 12<sup>th</sup> Nov, 2016, National Seminar on Psychosocial Perspective of Physical Education. Deptt. of Phy. Edn., Mugberia Gangadhar Mahavidyalaya. Chaired in the Scientific Session
- 04 8<sup>th</sup>-10<sup>th</sup>Dec, 2016, 2-Day International Seminar on 'New Frontiers of Research in Physical Education and Sports Science'. Deptt. of Phy. Edn. and Sports Science, Jessore University of Science and Technology, Bangladesh. 'Influence of Arousal Stress and Anxiety on Sports Performance'
- 05 8<sup>th</sup>-10<sup>th</sup>Dec, 2016, 2-Day International Seminar on 'New Frontiers of Research in Physical Education and Sports Science'. Deptt. of Phy. Edn. and Sports Science, Jessore University of Science and Technology, Bangladesh Chaired in the Scientific Session
- 06 21<sup>st</sup> to 24<sup>th</sup> October, 2016, Chairman of the Expert Committee Members for 'Midterm Monitoring of Construction of Sports Infrastructure'. Different Colleges under Guwahati University, Acted as Chairman nominated by UGC
- 07 27<sup>th</sup> Feb to 3<sup>rd</sup> March, 2016, Chairman of the Expert Committee Members for 'Midterm Monitoring of Construction of Sports Infrastructure'. Different Colleges under Aizwal University, Acted as Chairman nominated by UGC

#### **DR. ASISH PAUL, Assistant Professor**

#### **Invited Lecture Delivered/Session Chaired:**

##### **a. Conferences**

- 1 ————— 'Issues and Challenges in Physical Education and sports science' Department

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of Physical Education, Vinaya Bhavana, Visva-Bharati, Santiniketan, W.B. National Co-Chairperson

- 2 'Protispordhi' the new dimension of inclusive education in higher education Plenary lecture, National Seminar on 'Psycho-Social perspective of Physical Education', Department of Physical Education, Mugberia Gangadhar Mahavidyalaya, Purba Medinipur, National Plenary lecture
- 3 Contemporary issues of Physical Education and sports' Modern trends and development of Physical Education and sports. Department of Physical Education, Khejuri college, Purba Medinipur, W.B., National Lead Speaker
- 4 ----- Modern trends and development of Physical Education and sports Department of Physical Education, Khejuri college, Purba Medinipur, W.B. National Chairperson
- 5 ----- National seminar on latest trends and challenges for physical education and sports Govt. college of Physical Education for Women, Dinhata, Coochbehar, W.B. National Chairperson
- 6 ----- UGC international conference on sports medicine, Physical Education and Yoga, C.H.C. Athletic Association, Benaras Hindu University, Varanasi International Chairperson

#### **b. Institutions:**

1. Guest Lecturer in the department of SPORTS MANAGEMENT, Indian Institute of Social Welfare and business management, Kolkata, West Bengal
2. P.T.T.I. Institution, VidyasagarBaniBhaban

#### **Seminar/Workshop/Conference/Symposium Attended**

Sl. No. Title of Lecture/ Academic Session/Title of Conference/ Seminar etc./ Organized by Whether International/National/State/University level

- 1 'A status survey on advertisement in IPL, 2016. National Seminar on Issues and challenges in Physical Education and Sports science, Alumni committee of Dept. of Physical Education and Department of Phy. Edn, Visva- Bharati, Santiniketan. National Paper presented
- 2 Physical Education and Sports in Indian Government's national policy on Education- an excerpt. Teacher Education: New Vistas- New Challenges. School of Education, Netaji Subhas Open University, Kolkata. National Paper presented
- 3 'Analysis of Psycho-social characteristics and ponderal index.....to poverty line. National Seminar on 'Psycho-Social perspective of Physical Education' Department of Physical Education, Mugberia Gangadhar Mahavidyalaya, Purba Medinipur National Paper presented
- 4 'Application of Yoga for treatment against chronic low back pain'- an excerpts. National seminar on ' Yoga and exercise: the way of living'. Pingla Thana Mahavidyalaya, Purba Medinipur, National Paper presented
- 5 'Revenue generation- A model', National seminar on latest trends and challenges for physical education and sports, Government college of Physical Education for Women, Dinhata, Coochbehar, W.B. National Paper presented
- 6 Volunteer, the Root of Success or failure. 24<sup>th</sup> Pan Asian Asian Sports & Physical Education Conference on 'Traditional sports and Modern Sports for the development

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of global human resource' Dept. of Physical Education and Visva-Bharati sports Board Santiniketan, Visvabharati. International Paper presented

- 7 'A study on socioeconomic status and the development through sports culture of rural women'. International congress of sports Psychology on 'Changing trends and challenges in the 21<sup>st</sup> century. Department of Physical Education, Benaras Hindu University International Paper presented
- 8 'Effect of selected exercises on balance of mentally retarded students', 'Parental involvement in the education and rehabilitation of children with special needs', Department of Education, Jadavpur University. International Paper presented
- 9 'A review study on application of Yoga for management of pain', 'Social transformation through yoga', Department of Yogic Science, Uttarakhand Sanskrit University, Haridwar International Paper presented

#### **Courses Attended**

- 01 National seminar on 'Emerging Pedagogical Issues and Priorities in B. Ed. Special Education through ODL mode", 0<sup>th</sup> June, 2016
- 02 State level workshop on revised B. P. Ed. and M. P. Ed. programme as per NCTE new regulations, 2014. 15<sup>th</sup> -17<sup>th</sup> June, 2016
- 03 UGC sponsored Short course on 'Teachers Educators' 3<sup>rd</sup>nov.- 9<sup>th</sup>nov., 2016
- 04 'In service training and sensitization of key functionaries of central and state governments, local bodies and other service providers' 5<sup>th</sup>- 8<sup>th</sup> Jan., 2017

#### **Article Published**

##### **a. Journals**

- 1 The financial viability and stability through revenue generation and its distribution in a league system: Discussion in Indian Context, Vol. 06, Issue, 04, pp. 7605-7609, April, 2016. International Journal of Development Research
- 2 An analysis of different running speed parameters which influencing sprint running, Vol. 2 issue 1, may 2016. International journal of multidisciplinary research and modern education
- 3 Sports Brand awareness: A study among the students of the Jadavpur University Volume 3, Issue 1, 2017. International Journal of Multidisciplinary Research and Modern Education
- 4 Comparison of physiological status between active and sedentary persons 4(3): 308-310 International Journal of Physical Education, Sports and Health 2017

##### **b. Conference Proceedings**

1. A study on relative performance analysis of Indian and Foreign cricketers from IPL 5 to IPL 8, Global conference on scientific culture in Physical Education and Sports (GLOCOSCPES - 2016), Panjabi University, Patiala
2. a comparative study on the coverage of selected newspapers considering the presence of PELE in India. Global conference on scientific culture in Physical Education and Sports (GLOCOSCPES - 2016), Panjabi University, Patiala
3. 'Gender', the deciding factor for print media coverage-A comparative study. Global conference on scientific culture in Physical Education and Sports (GLOCOSCPES - 2016), Panjabi University, Patiala

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4. A status survey of the demand of the different types of performers in advertisements International conference on Physical Education and Sports Science, 'Emerging trends in fitness and sports sciences'
5. 'Suggestive rehabilitative exercise programme for inclusion of the special child International conference on, 'Parental involvement in the education and rehabilitation of children with special needs', Department of Education, Jadavpur University

**Major Achievements**

Development of e-learning delivery process/material

Sl. No./Title of Module/Recognized by/Submitted at/Delivered at

- 01 'EDUCATIONAL ADMINISTRATION AND MANAGEMENT' Module 1 of Unit I - V Module 2 of unit VI - IX. **Audio Visual mode lecture for virtual learning** at NETAJI SUBHAS OPEN UNIVERSITY, KOLKATA

**Dr. Papan Mondal, Assistant Professor**

**Details of Abstract/ Seminar Presentation, Workshop, Session Chaired**

**3. A. Imitated Lectures Delivered / Session Chaired:**

Sl.No./Title of the Seminar Host Institution/Year/Duration

01. National Seminar on Nutrition and Wellness. Palli Siksha Bhavana, Visva-Bharati, Sriniketan. November, 2016 2 days
02. WBCIPE National Seminar GCPEW, Dinhata & WBCIPE. March, 2017 2days

**3. B Seminar/ Workshop/Conference/Symposium Attendant:**

Sl.No./Presenting Author/Title of the Paper/Host Institution/Year/Duration

01. Papan Mondal : Relationship between Jump Height and Spiked Ball Velocity of Volleyball Spike and Jump Service, GCPEW, Dinhata & WBCIPE March, 2017. 2 days
02. Papan Mondal : Exercise-A Conducive Influential Factor for Mind Palli Siksha Bhavana, Visva-Bharati, Sriniketan. November, 2016, 2 days
03. Papan Mondal : Biomechanical Factors Correlated with Spiked Ball Velocity of Front Row Volleyball Spiking, Department of Physical Education, Burdwan University. September, 2016, 2 days

**3. B. Workshop details:**

**Sl.No./Workshop on/Host Institution/Year/Duration**

01. Revised B.P.Ed and M.P.Ed Programs as per NCTE New Regulations, Department of Physical Education, Jadavpur University, Kolkata-32. July, 2016 3days
02. In-Service Training and Sensitization of Key Functionaries of Central and State Governments, Local Bodies and Other Service Providers. Ramkrishna Mission Blind Boys Academy, Narendrapur, Kolkata, The School of Education, Netaji Subhas Open University. January, 2017, 3 days

**3. C. Seminar/ Workshop/Conference/Symposium Organized:**

Sl.No./Workshop on/Host Institution/Year/Duration

01. Revised B.P.Ed and M.P.Ed Programs as per NCTE New Regulations. Department of Physical Education, Jadavpur University, Kolkata-32. July, 2016, 3 days



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**4. B. Articles Published in Journals:**

Sl.No./Authors Name/ Title of the Paper/Name of the Journal /ISSN No./Year of Publication Remarks

01. 1.Pallab Ghosh **2. Dr. Papan Mondal** : Biomechanical Factors Contributing to Effective Bowling in Cricket International Journal of Physical Education, Sports and Health. 2394-1685, April, 2016. UGC Approved Journal
02. 1. Neptune Ghosh **2.Papan Mondal** 3..Prof.Sudip Sundar Das : A Study on the effects of Limb length and Arm Strength on the Ball Release Velocity in Cricket International Journal of Physical Education, Sports and Health 2394-1685 November, 2016, UGC Approved Journal

**Dr. Atanu Ghosh, Assistant Professor**

**Details of Abstract/Seminar Presentation, Workshop, Session Chaired**

**3. A. Imitated Lectures Delivered/Session Chaired:**

Sl.No./Title of the Seminar/ Lectures Delivered/Host Institution/Year/Duration

01. **Lectures Delivered**, Visva-Bharati, Sriniketan. 2016 4 hours
02. WBCIPE National Seminar GCPEW, Dinhata & WBCIPE. March, 2017, 2days

**3. B. Seminar/ Workshop/Conference/Symposium Attendant:**

Sl.No./Presenting Author/Title of the Paper/Host Institution/Year /Duration

01. Atanu Ghosh : A comparative study of hamstring muscle length and hyper extension ability of spine between B.P.Ed and M.P.Ed students, GCPEW, Dinhata & WBCIPE March, 2017, 2 days
02. Atanu Ghosh : Care for Health & Well-Being of Elite Athletes towards Performance Potentiality, Palli Siksha Bhavana, Visva-Bharati, Sriniketan, November, 2016, 2 days
03. Atanu Ghosh : A Comparative study on selected Psychological Parameters between State Level Senior and Junior Sprinters, Department of Physical Education, Burdwan University. September, 2016 2 days

**3. B. Workshop details:**

Sl.No./Workshop on/Host Institution/Year/Duration

01. Revised B.P.Ed and M.P.Ed Programs as per NCTE New Regulations. Department of Physical Education, Jadavpur University, Kolkata-32, July, 2016. 3days
02. In-Service Training and Sensitization of Key Functionaries of Central and State Governments, Local Bodies and Other Service Providers, Ramkrishna Mission Blind Boys Academy, Narendrapur, Kolkata, The School of Education, Netazi Subhas Open University. January, 2017, 3 days

**3. C. Seminar/ Workshop/Conference/Symposium Organized:**

Sl.No./Workshop on/Host Institution/Year/Duration

01. Revised B.P.Ed and M.P.Ed Programs as per NCTE New Regulations. Department of Physical Education, Jadavpur University, Kolkata-32. July, 2016, 3 days

**3. D. Orientation Courses/Refresher Courses Attended:**

Sl.No./Courses/Host Institution/Year/Duration

01. Orientation Courses : HRDC, Burdwan University. June 2017, 28 days

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### 4. B. Articles Published in Journals:

Sl.No./Authors Name/Title of the Paper/Name of the Journal/ISBN No./Year of Publication

01. 1. Sanjoy Bhunia 2. Dr. Atanu Ghosh : The Assessment of relation between somatotyping and motor ability of college level male students, Seminar Proceedings, 7 Jan, 2017

## SANSKRIT

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### Brief History of the Department

Founded in August 1956, with Prof. Gaurinath Sastri, the celebrated Principal of the Govt. Sanskrit College, Calcutta as the Teacher-in-charge (1956-1958) and then Prof. Sadananda Bhaduri (who later donated his collection of books to the Departmental library) as its first Head of the Department (1958-1961), Jadavpur University's Department of Sanskrit, with its day and evening sections, started flourishing with a bang during the tenure of Prof. RamaranjanMukherji, who, twice pivot of the Department for a long time (1961-1970, 1971-1972), took an active interest in its multiple activities till his last days. After a brief spell of joint Headship of Prof. SitanathGoswami and Prof. Gopikamohan Bhattacharya in 1970, the former singly headed this Department twice (1970-1971, 1973-1980) for another long period, after which the Headship became rotational. The subsequent Heads were Prof. Ms. Sukumari Bhattacharji(the first woman to lead the Department, in 1981), Dr. Nirmalkanti Basu (1981-1983), Prof. Bhabaniprasad Bhattacharya (the first teacher to occupy the chair twice and the only teacher to complete his/her tenures since the introduction of rotatory Headship, in 1983-1985, +), Prof. Rabisankar Banerji (1985-1987), Prof. Nandita Bandyopadhyay (1987-1989), Dr. Himansu Narayan Chakravarti (1989-1991), Prof. Manabendu Banerjee (1991-1993), Prof. Bijoya Goswami (1993-1995, +), Prof. Sarbani Ganguli (1995-1997), Prof. Bhabaniprasad Bhattacharya (1997-1999), Dr. Abhijit Ghosh (1999-2001,+), Prof. Pradyot Kumar Datta (2001-2003), Prof. Lalita Sengupta (2003-2005), Prof. Rita Chattopadhyay (2005-2006, +), Prof. Ms. Debarchana Sarkar (2006-2008), Prof. Tapan Sankar Bhattacharyya (2008-2010), Prof. PiyaliPraharaj (2010), Prof. Bijoya Goswami (2010), Prof. Rita Chattopadhyay (2011), Prof. Lalita Sengupta (2011-2012), Dr. Abhijit Ghosh (2012-2013) and the present Head being Prof. Tapan Sankar Bhattacharyya (2013-till now). As well as such stalwarts as among others the illustrious Prof. Sushil Kumar De, Dr. Kunja Gobinda Goswami, Prof. Prabodh Chandra Lahiri, Prof. Bishnupada Bhattacharya, Prof. Hemanta Gangopadhyay,



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Prof. Sanjukta Gupta and Dr. Chinmayi Chatterjee, luminaries like Mahamahopadhyay Srijib Nyayatirtha and noted traditional scholars like Pandits Dinesh Chandra Sastri, Bidhubhushan Tarkatirtha, Bhutesh Chandra Smrititirtha, Narmada Kumar Tarkatirtha and Ms. Durgabati Bandyopadhyay were also associated with this Department, in some way or other.

The Department earned in 1989 the University Grants Commission-recognized then rare distinction of Department of Special Assistance, with Prof. Rabisankar Banerji as its Coordinator for a life time, subsequently led by Prof. Manabendu Banerjee (acting) and Prof. Bijoya Goswami. Since 1997, it has had also a University-funded Centre for Indology, being first coordinated by Prof. Manabendu Banerjee, then by Prof. Nandita Bandyopadhyay (Joint Coordinator Prof. Debarchana Sarkar) and now by Prof. Debarchana Sarkar. Above everything else, after the Sanskrit Department of the University of Poona in the late 1960s, this Department became the second Centre of Advanced Study in Sanskrit in India in 2005, chiefly through the all-out tireless efforts of Prof. Ramaranjan Mukherji, Prof. Bijoya Goswami was its Coordinator (Joint Coordinator Prof. Lalita Sengupta) during its first phase, and the second phase of CAS-Sanskrit has been started on April 2013. And Prof. Debarchana Sarkar is the present coordinator and the Joint Coordinator is Prof. Tapan Sankar Bhattacharyya. Twice, in 1969 and 1997, the Department hosted the prestigious All-India Oriental Conference (Local Secretaries: resp. R. R. Mukherji and R. S. Banerji). Since 1996-1997, it has been regularly organizing Refresher Courses in collaboration with the UGC and the Academic Staff College of the University in umpteen thrust areas of Indology for university and college teachers from various parts of the country, with many Indian and foreign scholars of international repute acting as resource persons. It has also organised many successful national and international conferences, seminars as well as workshops on manifold Indological, especially Sanskrit-oriented topics. The UGC-sponsored Assistance for Strengthening of Infrastructure for Humanities and Social Sciences programme started in the Department since 2005, with the Head of the Department as its Coordinator, ex officio. The Department has printed and reprinted numerous scholarly works, and its research organ *Anvikâ* has been a regular publication since 1966 (till date in all 38 volumes, often divided into two parts, its recent two issues edited resp. by Prof. Rita Chattopadhyay and Prof. Lalita Sengupta being humble tributes to the hallowed memories of the Department's chief architect late Professor Padmashri Mahamahopadhyay Ramaranjan Mukherji, M.A., Ph.D., D.Litt. and the entire Department's beloved teacher, late lamented motherly and sisterly Prof. Nandita Bandyopadhyay, M.A., Ph.D., D.Litt.). Prof. Tapan Sankar Bhattacharyya also awarded the rare degree, D.Litt. in the year of 2012, from the Burdwan University.

The quality of teaching-learning methodologies followed by the Department is amply reflected by the fact, inter alia, that in last five years no less than 60 of its ex-students were selected by the West Bengal College Service Commission and Public Service Commission for Lectureship in colleges under various state universities. And, this Department has started attracting foreign students for quite a few years now: Prof. Rita Chattopadhyay taught the Diploma and Advanced Diploma Courses to a German and a South Korean student in the recent past, and Dr. Abhijit Ghosh taught M.A., B.A. Honours & Extra-Departmental courses in 2007 and M.A. & B.A. Honours courses in 2008 to students from the Faculty of Oriental Studies of the La Sapienza University in Rome who opted for Sanskrit courses, subsequent to the signing of a Memorandum of Understanding on student exchange program between the Jadavpur and the La Sapienza Universities.

In short, the Department, offering no less than 9 courses, continues to thrive with 11+18 teachers, some 500 students in its two sections and an excellent Departmental library, of which

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the Librarian for long till her retirement was Dr. Shyamali Basu, now succeeded by Ms. Shruti Mallick, B.Sc., B.Lib-Sc., friend extraordinary for the library-users.

### **1. A. Courses Offered:**

- B.A. Honours: 3-year under-graduate degree course, 6 semesters, intake 60 (total no. of students in 3-year classes at present: 160 approx.)
- B.A. Extra-Departmental: intake 50 (total no. of students in 2-year classes at present: 50 approx.)
- M.A. (Day): 2-year post-graduate degree course, 4 semesters, intake 70 (total no. of students in 2-year classes at present: 150 approx.)
- M.A. (Evening): 2-year post-graduate degree course, 4 semesters, intake 50 (total no. of students in 2-year classes at present: 110 approx.)
- PG-II Group: Apart from the existing five Groups or Special Papers, in 2017, introduced a separate Group named Nyāya Philosophy
- M.Phil.: 2 years, intake 15 (total no. of students in 2-year classes: 7)
- Ph.D. (many students attached with individual teachers)
- Certificate Course: 1 year, Language Studies, intake 20
- Diploma Course: 1 year, Language Studies, intake 20
- Advanced Diploma Course: 2 years, intake 10

(Note: the number of students at present in the last three courses is not known since these Courses fall under the Language Studies Centre)

### **1. B. Number of Faculty Members(2016 –2017):**

11 whole-time teachers and 18 guest faculty and part-time lecturers (day and evening sections).

**Prof. Bijoya Goswami** (July 2016) and **Prof. Sarbani Ganguli** (October 2016) has superannuated from the Department. One new teacher will be joining on July, 2017. A Librarian, Mr. Nimai Sardar has recently joined the Departmental library.

**Whole-time Teachers:** names, degrees etc. and areas of interest

(Master degrees of the teachers are in Sanskrit, unless otherwise specified, and Ph.D. and M.Phil. degrees are in Arts.)

Abbreviations: BU = University of Burdwan, CU = University of Calcutta, JU = Jadavpur University, PU = University of Poona, RBhU = Rabindra Bharati University, Kolkata, VBh = Visvabharati [University], Santiniketan)

### **Professors**

**BIJOYA GOSWAMI**, M.A. (JU), Ph.D. (JU)

Area of Interest: Classical Sanskrit Literature & Literary Criticism, Linguistics

**RITA CHATTOPADHYAY**, M.A. (CU), Ph.D. (CU)

Recipient of Griffith Memorial Prize (CU)

Ex-Professor of Sanskrit, RBhU

Emeritus Professor of Jadavpur University

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Area of Interest: Modern Sanskrit Literature, Classical Sanskrit Literature and Literary Criticism

**SARBANI GANGULI**, M.A. (CU), M.Phil. (JU), Ph.D. (JU)

Gita-Prabhā (Lucknow Bhatkhande University)

Pramathes Barua Awardee in Music (Kolkata)

Present Joint Coordinator, Centre for Indology, JU

Area of Interest: Nyāya-Vaiśeṣika Philosophy, Classical Sanskrit Literature & Literary Criticism, rendition of Sanskrit as well as modern Hindi & Bengali songs

**DEBARCHANA SARKAR**, M.A. (CU), Ph.D. (CU)

Diploma in Pali (CU) & German (School of Languages, JU)

Present Coordinator, CAS (Phase II) & Centre for Indology, JU

PI, Project on Sanskrit Manuscripts under UGC-UPE II

Area of Interest: Ancient Indian History, Epigraphy & Palaeography, Arthaśāstra, Classical Sanskrit Literature

**LALITA SENGUPTA**, M.A. (CU), Ph.D. (JU)

Area of Interest: Vedānta Philosophy, Classical Sanskrit Literature

**PIYALI PRAHARAJ**, M.A. (CU), M.Phil. (CU), Ph.D. (JU)

Area of Interest: Smṛti Literature, Arthaśāstra

**TAPAN SANKAR BHATTACHARYYA**, M.A. (JU), Ph.D. (JU), D.Litt. (BU)

Kāvya-Vyākaraṇa-Tarkatśārtha, Vyākaraṇacārya

Formerly of the Calcutta Campus of Rashtriya Sanskrit Sansthan, New Delhi

Recipient of 'Vyāsaśrī' National Award (2016) –Maharshi Vyasadev National Research Institute, Vedavyas, Rourkela – 4, Odisha

Area of Interest: Pāṇinian System of Sanskrit Grammar, Nyāya-Vaiśeṣika Philosophy

**Assistant Professors**

**SHIULI BASU**, M.A. (VBh), Ph.D. (VBh)

Area of Interest: Classical Sanskrit Literature & Literary Criticism

**KAKALI GHOSH**, M.A. (CU), Ph.D. (CU)

Area of Interest: Vedānta, Sanskrit Bddhist Literature, Pāṇinian and non-Pāṇinian Grammar, Palaeography, Manuscriptology

**DEBDAS MANDAL**, M.A. (JU), B.Ed., Ph.D. (JU)

Jt. Coordinator of the PG Evening Courses in Arts of the Department of Sanskrit, JU, 2017-2018

Programme Officer, National Service Scheme (JU)

Area of Interest: Smṛti Literature, Arthaśāstra, Ancient Indian History & Epigraphy

**CHINMAY MANDAL**, M.A. (JU), Ph.D. (JU)

Area of Interest: Nyāya-Vaiśeṣika Philosophy, Pāṇinian System of Sanskrit Grammar

**Guest Lecturers and part-timers** (day and evening sections)

Dr. Rabindranath Bhattacharya (Veda), Dr. Ananya Mitra (Epigraphy), Dr. Nandini Bhowmik (Epigraphy), Dr. Pradip Chandra Das (Veda), Dr. Monidipa Das (Kāvya); Part-timers: Dr. Nabanarayan Bandyopadhyay (Veda), DR. Indrani Kar (Veda), Dr. Ashok Kumar Mahata (Veda), Dr. Dilip Panda (Veda), Dr. Amal Kumar Bhattacharyya (Literature), Dr. Kartik Chandra Khatua (Literature), Dr. Sonali Bose (Literature), Dr. Sharbani Chattopadhyay (Literature), Dr. Susmita Goswami (Epigraphy), Dr. Rajat Sanyal (Epigraphy), Dr. Swarup Singha (Grammar), Dr. Nilanjana Sikdar Dutta (Veda), Dr. Ruma Bandyopadhyaya (Sāṃkhya and Yoga Philosophy), Dr. Radhanath Acharya (Literature).

**Office staff**

The office staff of the Department includes Shyamal Roy, H.S., Senior Assistant, Pradip Chowdhury, H.S., Senior Peon and Anil Sarkar, Peon, all of whom have by now identified themselves with the Department. The Librarian of the Departmental Library Sruti Mallick always cooperates heartily with the teachers and students. The lovable library assistant is Saumya Majumdar, Sorter, caring for the students as far as practicable.

**2. Broad Areas of Research Activities:**

- I. Vedic Studies
- II. Grammar and Indian Linguistics
- III. Indian Philosophical Systems
- IV. Literature, Literary Criticism, Drama and Dramaturgy
- V. Smṛti Literature
- VI. Epigraphy and Manuscriptology

**Ongoing Individual Research Projects:**

**Debarchana Sarkar:**

Projects under Prof. Debarchana Sarkar, Coordinator, CAS-Sanskrit (Phase II).

Aśokan Inscriptions: Andhra Pradesh sites Erragudi Rajulamandagiri: Prof. Debarchana Sarkar (Investigator), Prof. Susmita Basu Majumdar, AIHC, CU (Co-Investigator).

Reading Epigraphic Records of Early Kāmarūpa: Understanding State, Society and Economy: Prof. Debarchana Sarkar (Investigator), Prof. Suchandra Ghosh, AIHC, CU (Co-Investigator).

The Critical Edition of 'Ekallavīracāṇḍamahāroṣaṇatantra' : Prof. Debarchana Sarkar (Investigator), Dr. Rita Bhattacharya (Co-Investigator).

An Annotated Geographical Glossary of Inscriptions of Eastern India: Prof. Debarchana Sarkar (Investigators), Dr. Rajat Sanyal, Archaeology, CU (Co-Investigator).

A Study of the Natural Resources and Land Based Economy in the Kalachuri Era Records (7<sup>th</sup> to the 12<sup>th</sup> centuries): Prof. Debarchana Sarkar, Investigator, Prof. Nupur Dasgupta Prof, Dept. of History, J.U. (Co-Investigator).

Statement of imprecation in inscriptions of South-Asia: a comprehensive study: Prof. Debarchana Sarkar (Investigators), Dr. Rajat Sanyal, Archaeology, CU (Co-Investigator).

A Critical analysis of Gajaśāstram and Kalpanāratnam in the light of available

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epigraphic references: Prof. Debarchana Sarkar, Prof. Bijoya Goswami (Retd. Professor, JU), Prof. Susmita Basu Majumdar, AIHC, CU (Co-Investigators).

Epigraphic Tool: Texts, Languages and Historical Concepts Prof. Debarchana Sarkar (Investigator), Prof. Susmita Basu Majumdar, AIHC, CU (Co-investigator).

A Corpus of Inscriptions from Bihar Prof. Debarchana Sarkar (Investigator), Prof. Susmita Basu Majumdar, AIHC, CU (Co-investigator).

A literary and linguistic analysis of select Upapurāṇas (Investigators: Prof. Debarchana Sarkar, Dr. Shiuli Basu, Dr. Reeta Bhattacharya, Project Fellow, Asiatic Society, Dr. Anasua Bhowmik, Project Fellow, Asiatic Society).

Project on Sanskrit Manuscripts under UGC-UPE II : Principal Investigator

**Tapan Sankar Bhattacharyya:**

At present doing a project on 'Paniniya Paribhasika - Sabdakosa', under CAS, Sanskrit, Jadavpur University.

**Kakali Ghosh:**

At present doing a project on "Neuro-scientific paradigm of Sleep vis-a-vis an approach to Sleep in Indian Tradition", under CAS, Sanskrit, Jadavpur University.

**Debdas Mandal:**

Project on Nītiśāstrīya-pāribhāṣika-śabdakoṣaḥ based on principal Sanskrit Nīti text.

**3. A. Invited Lectures Delivered/ Papers Presented in Refresher or Orientation or Summer Courses/Seminars/Workshops/Conferences/Symposia/Colloquia & c.:**

**Sarbani Ganguli:**

Delivered lecture as Resource person, Two-day National Seminar on 'God and Universe', Dept. of Sanskrit, Mugberia College, VU(22-23 November 2016)

Delivered lecture as Resource person, Two-day National Seminar on 'Music, its impact on human body and soul', Dept. of Philosophy and Music, Mugberia, VU (December 2016)

Delivered lecture as Resource person Two-day National Seminar on 'Vedanga and allied subject' Dept. of Sanskrit, Jadavpur University (January 2017)

Delivered lecture as Resource person, One-day International Seminar on "Ethics in Sanskrit Literature", Dept. of Sanskrit, Vidyasagar University (31<sup>st</sup>March 2017)

**Debarchana Sarkar:**

Delivered lectures on "History of Indian Writing, Characteristic features of Indian Scripts and Methodology and Problems of Epigraphic Researches"; Workshoporganised by Dept. of Sanskrit, Vivekananda University, Belur Math, 1, 2 April, 2016

Invited Lecture - Delivered lecture on "Epigraphic Evidence from Ancient Bengal"; organised by Dept. of History, JU, 21.04.16

Invited Lecture - Delivered lecture on "Deopara Prashasti of Vijayasena"; organised by Dept. of Ancient Indian History and Culture, CU, 06.05.16

Invited Lecture - Delivered lectures on "Pratimalakshana, a text on Buddhist Iconography"; organised by Centre for Buddhist Studies, Dept. of Philosophy, JU, 20.05.16 & 23.05.16



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Delivered lecture on “Epigraphical Hybrid Sanskrit Language”; Workshop (National) organised by Dept. of History, Jadavpur University and The Asiatic Society, Kolkata, 15.09.16

Delivered lecture on “Sanskrit language of Inscriptions”; Workshop organised by The Asiatic Society, Kolkata, 27.09.16

Invited Lectures - Delivered lectures on 4 different topics; organised by Central University of Odisha, Koraput, between October 17 and 27, 2016

Delivered lecture on “Antiquity of writing in Indian subcontinent”; Workshop on Manuscriptology and Paleography - organised by Dept. of Sanskrit, Vivekananda University, Belur Math, 3 December 2016

#### **Tapan Sankar Bhattacharyya:**

Resource Person and invited to deliver a lecture at Bajkul Milani Mahavidyalaya, Purba Medinipur on 19<sup>th</sup> September, 2016.

Resource Person and invited to deliver a lecture at Dakshin Barasat Dhruvachand Haldar College on 4<sup>th</sup> October, 2016.

Delivered a lecture on “Vedāngas: language, religion, philosophy and science” in the Two-day National Seminar at the Department of Sanskrit, Jadavpur University on 19<sup>th</sup> & 20<sup>th</sup> January, 2017.

Resource Person and delivered a lecture at the Asiatic Society on 21<sup>st</sup> February, 2017.

#### **Shiuli Basu:**

Invited Speaker in UGC sponsored National level Seminar on “Pancha-Kanya-India’s Ideal of Perfect Womenhood in Sanskrit Literature : Equally Relevant in Modern Days” organised by Department of Sanskrit, Dhruvachand Halder College, Dakshin Barasat, South 24 Pgs., 4-5 October, 2016 and presented a paper entitled “The Characteristics of Tara : A Bird’s Eye View”

Presented a paper entitled “Essence of *Upamālakāra* as reflected in Dhammapada” in 48<sup>th</sup> Session of All India Oriental Conference, Haridwar, organised by Uttarakhand Sanskrit University and University of Patanjali, 12-14 November, 2016

Presented a research paper entitled “সংস্কৃত অলঙ্কারশাস্ত্রে উৎপ্রেক্ষা - নানারূপে” in the 1<sup>st</sup> ABSLA State Sanskrit Conference, organised by All Bengal Sanskrit Lovers’ Association, held on 12-13 December, 2016, Kolkata

#### **Kakali Ghosh:**

Delivered 10 (ten) lectures (each of two hours) on *Īsopaniṣad* and *Kenopaniṣad* as Resource Person in the National Level Course on ‘The Wisdom of the Upanishads’ conducted by Kaivalyadhama Gurukul in association with the Philosophico-Literary Research Department, Kaivalyadhama, Lonavla during June 20-29, 2016.

Invited speech on “Bibliography, Reference, Punctuation Marks & Basic Computer” on September 27, 2016 (5-7pm) and October 3 (5-7pm) in the workshop on ‘Sanskrit Language & Literature: A methodological Approach to Research’ during September 27 – October 3, 2016 at Ramakrishna Mission Vidyamandira, Belur Math.

Delivered an invited talk on “Ahalyā” on 5<sup>th</sup> October, 2016 in the UGC-sponsored National Seminar on “Pancha-Kanya- India’s Ideal of Perfect Womenhood in Sanskrit Literature: Equally Relevant in Modern Days”, organised by the Department of Sanskrit,

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Dhruba Chand Halder College in collaboration with Department of Sanskrit, Jadavpur University, held during October 4 - 5, 2016.

Presented a paper titled “Vrata and Ālpanā of Bengal: Demystifying Symbolic Art” in the International Seminar on ‘Symbolism in Indian Art, Archaeology and Literature’ held at Deccan College PG and Research Institute Deemed University, Pune during December 1 – 3, 2016.

Delivered an invited talk on 15<sup>th</sup> February 2017 in the UGC-Sponsored National Seminar on ‘Manuscripts of Unpublished Sanskrit Texts: Search and Utility’ organised by School of Vedic Studies, Rabindra Bharati University on February 14 - 15, 2017.

Delivered an invited speech titled “Administration in the modern Education System of India: in the light of *Dharmaśāstras*” in the National Seminar on ‘Ethical foundation of Administration: In the light of *Dharmaśāstra*’ in the Department of Sanskrit, North Bengal University on 30<sup>th</sup> March 2017.

Taken classes on ancient Indian scripts and conducted practical sessions in the Workshop on Manuscriptology (29 March – 13 April 2016) on April 2, 4, 9, 11, 2016 at RKM Vivekananda University, Belur.

Taken classes/Delivered invited lectures (total 12 hours) on ‘Research Methodology’ in the Department of Sanskrit (M.Phil.) in Ramakrishna Mission Vidyamandira, Belur Math on February 4, 18 & 25, 2017 and March 4 and 11, 2017.

#### Debdas Mandal:

5.10.2016 : Invited lecture on ‘*Draupadīmananerajanīti : ektiādhunikavīk’āṇa*’ in the UGC Sponsored National Seminar on “Panchakanya- India’s Ideal of Perfect Women hood in Sanskrit Literature : Equally Relevant in Modern Days” Organised by Department of Sanskrit, Dhruba Chand Halder College, Dakhin Barasat.

12.11.2016 - 14.11.2016 : Presented a Paper on ‘*Hitopadeśepṛāchinabhāratīya dharma nīteranusandhānaṃ*’ in the 48<sup>th</sup> Session of All India Oriental Conference, Organised by Uttarakhand Sanskrit University & University of Patanjali, Haridwar.

28 & 29.1.2017: Presented a Paper on *Purāneraālokekalira dharma anusandhāna : ektisamīk’ā* in the All India Sanskrit Conference, organised by Howrah Sanskrit Sahitya Samaj, Howrah.

17.2.2017-18.2.2017 : Invited lecture on ‘*śruti-śmṛtiśāstrayopāpasyasvarūpaṃ: tasyāādhunikatātparyampratīkāraṇa*’ in the UGC Sponsored two-day National Seminar on ‘*Influence of Vedic Literature on Smṛti-śāstra & it’s congeniality in Modern Age*’ organised by the Department of Sanskrit, Gobardanga Hindu College.

18<sup>th</sup> & 19<sup>th</sup> 3.2017 : Invited lecture on ‘*Vartamanyugeśmṛti-śāstra o mūlyabodha : ektiādhunikasamīk’a*’ in the UGC Sponsored two-day National Seminar on ‘Relevance of Sanskrit Education in Modern India’ organised by the Department of Sanskrit, Berhampore College. Murshidabad.

#### Chinmay Mandal:

Invited lecture on মহাভারতে কুন্তী: পরবর্তী সাহিত্য ও আধুনিক সমাজে তাঁর চারিত্রিক প্রতিফলন” in the Two-day UGC National Seminar on “PANCHA KANYĀ: India’s Ideal of Perfect Womanhood in Sanskrit Literature-Equally Relevant in Modern Day”, on 5<sup>th</sup> October 2016.

Presented a paper on “*Pāṇinīya-vyākaraṇasyavedāṅgatvam*” in the All India Sanskrit



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Conference held on 28<sup>th</sup> & 29<sup>th</sup> January, 2017 organised by Howrah Sanskrit Sahitya Samaj, Howrah.

**3. B. Sessions Chaired in Seminars/Workshops/Conferences/Symposia/Colloquia/Refresher Courses etc.:**

**Shiuli Basu:**

Acted as Deputy Chairperson of an academic session in the 1<sup>st</sup> ABSLA State Sanskrit Conference, organised by All Bengal Sanskrit Lovers' Association, held on 12-13 December, 2016, in Kolkata.

**Kakali Ghosh:**

Chaired an Academic Session (29 January 2017) in the All India Sanskrit Conference, organised by Howrah Sanskrit Sahitya Samaj on 28 - 29 January 2017.

**3. C. Seminars/Workshops/Conferences/Symposia/Colloquia & c. Arranged/Coordinated/Conducted/Convened:**

**Debarchana Sarkar:**

Organised Series of Lectures on "Research Methodology" under Centre for Indology, Dept. of Sanskrit, JU, through September 2016

Organised a Workshop as Principal Investigator on "Metrics and Poetics" under UPE II, JU; Nov. 22-26, 2016

Organised a Workshop (International) as Coordinator on "Sanskrit, Pali and Prakrit Grammar" under Centre for Indology with financial Assistance of UGC XII Plan; Dec. 22-31, 2016

Organised a Seminar (National) as Coordinator of CAS-Sanskrit "Literature and Inscriptions: Texts and Contexts" under CAS-Sanskrit Phase II; 21 and 22 March, 2017

Visited Varanasi (BHU, Bharat Kala Bhavan, Central University of Tibetan Studies and Sarnath Museum) for Fieldwork under CAS-Sanskrit from 22.01.17 to 26.01.17

**Kakali Ghosh:**

Conducted four practical sessions (2/3 hours each) in the Workshop on Manuscriptology (21 November – 6 December 2016) at RKM Vivekananda University, Belur.

Conducted academic session (3 hours) on ancient Indian scripts (Nandi-Nāgarī & Siddhamat[kā]) in the Workshop on Manuscriptology & Palaeography (December 1 - 22, 2016) on December 21, 2016, organised by Gaudiya Mission Para-Vidyapeeth Research Institute in collaboration with National Mission for Manuscripts.

Conducted three classes [1.15-2.15 p.m. (28 Dec. 2016) & 3.00-5.15 p.m. (31 Dec. 2016)] as a Resource Person in the 7-day (22-23 Dec. and 27-31 Dec. 2016) International Workshop on Sanskrit, Pali and Prakrit Grammar, held under the Centre for Indology, Department of Sanskrit with financial support from UGC XII Plan Grant, Jadavpur University, Kolkata.

Directed and presented the Sanskrit Drama "Ratharajju" on 27<sup>th</sup> December 2016 in the Cultural Program arranged on the occasion of the Three-day International Seminar on 'Logic, Ethics & Epics: Homage to Professor Bimal Krishna Matilal', organised by ICPR Centre for Buddhist Studies, Department of Philosophy, Jadavpur University, held from 27 - 29 December 2016.

Convened a 7-day (22-23 Dec. and 27-31 Dec. 2016) International Workshop on

### **Annual Report 2016-17**

Sanskrit, Pali and Prakrit Grammar, held under the Centre for Indology, Department of Sanskrit with financial support from UGC XII Plan Grant, Jadavpur University, Kolkata.

Convened a two-day National Seminar on 'Literature and Inscriptions: Texts and Contexts' from 21<sup>st</sup> to 22<sup>nd</sup> March, 2017, organised by the Centre for Advanced Studies (CAS) Phase II, Department of Sanskrit, Jadavpur University, Kolkata.

#### **Debdas Mandal:**

19.1.2017 - 20.1.2017: Coordinated two-day National Seminar on '*Veda Egas: language, religion, philosophy and science*' Organised by Department of Sanskrit, J.U.

16.02.2017. Coordinated '*the Sanskrit Day Celebration*' Organised by Dept. of Sanskrit, J.U.

#### **Chinmay Mandal:**

Jointly conducted Two-day National Seminar on "Vedā Egas: language, religion, philosophy and science," organised by the Department of Sanskrit, Jadavpur University, on 19<sup>th</sup> & 20<sup>th</sup> January, 2017

### **3. D. Orientation or Refresher or Summer Courses/ Seminars/ Workshops/ Colloquia Attended as Observer & Hearer:**

#### **Sarbani Ganguli:**

Seminar attended as Resource person on Tarkasamgraha, AKPC Mahavidyalaya, B.U., Bengai, Hooghly (Nov.2016)

#### **Tapan Sankar Bhattacharyya:**

Attended Three Day National Seminar on "Three Major Schools of Vedanta" organised by Ramakrishna Mission Vivekananda University, Belur Math in collaboration with Sri Venkateswara Vedic University, Tirupati on 1<sup>st</sup> to 3<sup>rd</sup> March, 2016.

#### **Shiuli Basu:**

Participated in the five-day workshop on "Poetics and Metrics in Sanskrit and allied literature" organised under the UGC-UPE II, Jadavpur University, 22-26 November, 2016

Participated in the Short Term Course titled as "Use of Information Resources in Research and Development", conducted by UGC, Human Resource Development Centre, Jadavpur University, 05-11 January, 2017

Attended the Three-day National Seminar entitled "Ancient Indian Science vis-à-vis Modern Scientific Theories, Discoveries and Development" organised by Sanskrit Sahitya Parishat, Kolkata, 25-27 March, 2017

#### **Debdas Mandal:**

19.06.2016 - 25.06.2016 :Attended the Ministry of Youth Affairs & Sports, Govt. of India Sponsored 4<sup>th</sup> Orientation Course,organised by Department of Youth Affairs, Ramakrishna Mission Ashrama, Narendrapur, Kolkata.

19.11.2016 : Attended the National Level Seminar on 'Higher Education In India : Road Ahead', organised by Department of Adult Continuing Education & Extension (DACEE), J.U. in Collaboration with WBCUTA. RKMIC, Golpark, Kolkata.

22.11.2016 - 26.11.2016 : Attended A five-day workshop on Poetics and Metrics in Sanskrit and allied literature Organised under the UGC-UPE II, Jadavpur University.

22-23.12.2016 and 27-31.12.2016 : Attended A Seven-Day International workshop on Sanskrit, Pali and Prakrit Grammar Organised by centre for Indology, Dept. of Sanskrit, J.U.

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5.01.2017-11.01.2017 : Participated in the *Short Term Course for College and University Teachers/Librarians on Use of Information Resources in Research and Development* Organised by UGC, HRDC, JU.

20-21 & 27-31.3.2017 : Attended the Seven days Special Lecture Programme on *Mīmāṃsā*, organised by The CAS, Phase II, Dept. of Sanskrit, Jadavpur University.

#### **Chinmay Mandal:**

Participated One-day State-level Seminar on “Nyāya Philosophy: Commemoration of 100 years of Pandit Viswabandhu Bhattacharyya”, on 15<sup>th</sup> September, 2016, organised by the Department of Philosophy, Jadavpur University

Attended a Five-day Workshop on “Poetics and Metrics in Sanskrit and allied literature” organised under the UGC-UPE II, Jadavpur University, from 22<sup>nd</sup> to 26<sup>th</sup> November, 2016.

Attended two-day Workshop on Navya Nyāya held on 17<sup>th</sup> & 18<sup>th</sup> December 2016, organised by Howrah Sanskrit SahityaSamaj, Howrah.

Attended in the Short Term Course for College and University Teachers/Librarians titled as “Use of Information Resources in Research and Development” from January 5<sup>th</sup> – 11<sup>th</sup>, 2017 jointly organised by the Department of Library and Information Science and HRDC.

Participated in the National Level Research Oriented Workshop on “Bhaṣāparicchedaḥ (Anumānakāndaḥ)” jointly organised by the Swami Vivekananda Research Centre and Department of Sanskrit, R. K. M. Vidyamandira on 21, 25, 26 March & 1, 4, 8, 11, 18, 22, 25 April 2017.

#### **3. E. Orientation or Refresher or Summer Courses/ Seminars/ Workshops/ Colloquia Organised:**

##### **Debarchana Sarkar:**

Coordinated a short term (24 weeks) Certificate Course in Manuscriptology and Palaeography (Dec. 2016- June 2017) under the Department of Adult, Continuing Education and Extension, JU

#### **4. B. Articles Published in Journals, etc.:**

##### **Bijoya Goswami:**

“Prof Manabendu Banerjee — The Human Being and the Scholar”, ‘Anviksa’, Research Journal of the Dept. of Sanskrit, J.U.(Vol. XXXVII, Manabendu Banerjee Commemoration Volume, March 2016), ISSN:0587-1646

“Elephants and *Nāgavanas* in Ancient India”, ‘Anviksa’, Research Journal of the Dept. of Sanskrit, J.U.(Vol. XXXVII, Manabendu Banerjee Commemoration Volume, March 2016)

“*Prācīnbhārateupajāti o upajātiyasamṣkṛti*”, (Bengali)—Baranrekha “Aranyaparba”, Editor & Publisher: Arup Basu, 2016

“*Samṣkṛtasāhityehāsyarasa -Āntarjātik Pāṭhśālā*”, Ed. Amit Ray, Vol. VI, October-December 2016, ISSN : 2230-9594

##### **Debarchana Sarkar:**

“প্রাচীন ভারতীয় ইতিহাসের নির্মাণ : কল্পনার অধিকার।” ইতিহাস অনুসন্ধান, জানুয়ারি ২০১৭

### Annual Report 2016-17

“Linguistic and Grammatical Peculiarities of Select Post-Aśokan Pre-Gupta Inscriptions” – in *Anvikṣā: Research Journal of the Department of Sanskrit*, (Vol.37) JU

#### Lalita Sengupta:

“*Viśiṣṭādvaitamateśabdapramāṇam*” – published in *Anvikṣā*, Vol. XXXVIII, March, 2017

#### Tapan Sankar Bhattacharyya:

Published a research article in the ‘Sahṛdayabharati’, Felicitation volume tribute to Dr. Sitanath Acharya Śāstrī on June 2016.

Published a research article in the book, ‘Ajānā Manush Vivekananda’ published by Department of Education, Jadavpur University in the month of January 2017.

Published an article in the ‘Anvikṣā’ Referred journal (Vol. – XXXVIII) in the Department of Sanskrit, Jadavpur University on March, 2017.

#### Shiuli Basu:

Bengali Translation of two Modern Sanskrit Poems, in *Suinho Street*, Śārada Saṁkhyā, 2016.

“*Śabda-Śakti and Hitopadeśa : A few words*” - in *Anvikṣā*, Research Journal of the Department of Sanskrit, Vol. XXXVIII, March 2017. ISSN-0587-1646.

#### Kakali Ghosh:

Bengali Translation of six (06) Modern Sanskrit Poems, in *Suinho Street*, Śārada Saṁkhyā, 2016.

“Bhāratiya Sāmājik(a) Itihās(a) Citraṇe Bauddha-Bauddhik(a) Avadān(a)”, in *Bhārater(a) Sāmājik(a) Itihās(a): Anūrdhva 30-er(a) Kalame [The Socio-History of India: a collection of essays by below 30 aged Essayist]*. Kolkata: Avishkar, December 2016. ISBN 978-93-83521-52-4. (pp. 52-67).

“Reflections on yogic concepts embedded in the *Vālmīki-Rāmāyaṇa*” in *Anvikṣā*, Research Journal of the Department of Sanskrit, Vol. XXXVIII, March 2017. ISSN-0587-1646. (pp. 131 – 142).

#### Debdas Mandal:

“*Samskṛtanītikathāraālokesujana o durjanersvarūpaanveṣaṇa*” in *Anvikṣā*, Research Journal of the Department of Sanskrit, Vol. XXXVIII, March 2017 (ISSN: 0587-1646)

#### Chinmay Mandal:

প্রাচীন ন্যায় নিশ্চয়স লাভে বাদ, in *Anvikṣā*, Research Journal of the Department of Sanskrit, Vol. XXXVIII, March, 2017 (ISSN: 0587-1646), Pp. 149-153

### 5. Research Guidance:

#### Debarchana Sarkar:

Candidates awarded Ph.D. –1 (Smt. Devasmriti Jana)

Candidates awarded M.Phil. – 1 (Smt. Shefali Mandal)

#### Tapan Sankar Bhattacharyya:

Candidates awarded Ph.D. – 3

Candidates awarded M.Phil. – 3

#### Shiuli Basu:

Candidates awarded Ph.D. – 1

**Kakali Ghosh:**

Candidates awarded M.Phil. –3

**6. Major Achievements:**

**Leaderships in Academic Bodies:-**

**Rita Chattopadhyay:**

Elected as Emeritus Professor of Jadavpur University.

**Sarbani Ganguli:**

Member of selection committee, College Service Commission (February 2016-July2016).

Member, Ph.D. committee, Bankura University and Vidyasagar University.

Member, BOS, UG and PG, Vidyasagar University.

Member, BOS, UG and PG, Midnapur College (Autonomous), Vidyasagar University.

External subject expert, Distance Education, Vidyasagar University.

Subject expert, Career Advancement Scheme (CAS), Vidyasagar University.

External Subject expert, Examination Committee, North Bengal University.

Visiting Faculty (7 Days), Vidyasagar University, (March 2017).

**Debarchana Sarkar:**

Coordinator, Centre for Advanced Studies (Phase II), Sanskrit, JU

Coordinator, Centre for Indology, JU

Nominated member of Doctorate Committee JU & Departmental Ph.D. Committee of Sanskrit, Tripura University

Principal Investigator,UGC-UPE IIProject on Critical Edition on Sanskrit Scientific and Philosophical Manuscripts. Several texts from manuscripts are being edited.

Member, BOS (PG & UG), Board of Moderators: Universities of Calcutta (UG), Burdwan (UG), School of Vedic Studies (PG Diploma)

Appointed supervisor of James Prinsep Fellow Smt. Minakshi Banerjee by the Asiatic Society, Kolkata

**Lalita Sengupta:**

External BOS Member: Deptt. of Sanskrit, Sidho-Kanho-Birsha University

External Member: DRC, Deptt. of Sanskrit, The Burdwan University

**Tapan Sankar Bhattacharyya:**

Honoured with ‘Vyāsaśrī’ National Award from Maharshi Vyasadev National Research Institute, Rourkela, Odisha in the month of August, 2016.

Member of B.O.S. at the Department of Sanskrit, Vidyasagar University.

Member of B.O.S, Sanskrit in the Post Graduate course, Department of Sanskrit, Midnapore College (Autonomous).

Guest Lecturer in the Dept. of Sanskrit, Ramakrishna Mission Vivekananda University from January 2016 to June 2016 and from July 2016 to till now.

Selected as a member of various UGC Expert Committee Meeting for Sanskrit Subject for three times from January 2017 to February 2017.

### **Annual Report 2016-17**

N.S.S. programme officer of the Jadavpur University unit.

#### **Debdas Mandal:**

Jt.Co-ordinator of the PG Evening Courses in Arts of the Department of Sanskrit, JU, 2017-2018.

Programme Officer, National Service Scheme (JU)

#### **Chinmay Mandal:**

Teacher-Mentor for Anti-Ragging Programme, Arts Faculty, 2016-17

### **7. Highlights:**

#### **Departmental:-**

UGC sponsored National level Seminar on “Pancha-Kanya-India’s Ideal of Perfect Womenhood in Sanskrit Literature : Equally Relevant in Modern Days” organised by Department of Sanskrit, Dhruva Chand Halder College, Dakshin Barasat, South 24 Pgs. In collaboration with Department of Sanskrit, Jadavpur University; 4-5 October, 2016  
Two-day National Seminar on “Vedāᅅgas: language, religion, philosophy and science,” organised by the Department of Sanskrit, Jadavpur University, on 19<sup>th</sup> & 20<sup>th</sup> January, 2017

A two-day National Seminar on ‘Literature and Inscriptions: Texts and Contexts’ from 21<sup>st</sup> to 22<sup>nd</sup> March, 2017, organised by the Centre for Advanced Studies (CAS) Phase II, Department of Sanskrit, Jadavpur University, Kolkata

#### **Centre for Indology**

A 7-day (22-23 Dec. and 27-31 Dec. 2016) International Workshop on Sanskrit, Pali and Prakrit Grammar, held under the Centre for Indology, Department of Sanskrit with financial support from UGC XII Plan Grant, Jadavpur University, Kolkata.

Series of Lectures on “Research Methodology” organised under Centre for Indology, Dept. of Sanskrit, JU, on September 2016



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**SOCIOLOGY**

Phone : +91- 33-2414-6058  
Int. : 2457-2555  
H.O.D. : Prof. Dalia Chakrabarti  
E-mail : hod@social.jdvu.ac.in  
hod.sociology@jadavpuruniversity.in

**1.A Courses Offered:**

- a. Ph D
- b. M Phil, 2 years, 17 students
- c. MA, 2 years, 42 students
- d. BA Hons., 44 students
- e. 2 ED courses at UG level (old syllabus)
- f. 4 GE courses at UG level (under CBCS scheme)
- g. A compulsory Sociology course at UG level for all Departments under Engineering Faculty
- h. One-year PG Diploma Course in 'Society, Religion and Social Work', under Centre for the Study of Religion and Society

**1. B. Number of Faculty Members:** 4, 1 ( superannuated), 3 (guest teacher)

**Professor Amites Mukhopadhyay**

**2. A. Area of Research Activities:**

Landscape governance and development; questions of identity formation and institutional histories of science and knowledge making in South Asian Context.

**3. A. Invited Lectures Delivered/Sessions Chaired:**

**Delivered** invited lecture on "Human Rights: A Sociological Perspective and Human Rights and Justice: Reflecting on the Social" on 26 November, 2016 in UGC Refresher Course on *Human Rights and Social Justice* organized by Department of Law, University of Calcutta on 15 November -5 December 2016.

**Delivered** invited lecture on "Qualitative Research Methods" at the UGC-HRDC sponsored short term *Research Methodology programme* at the Department of Economics, Jadavpur University during 09-14<sup>th</sup> January 2017.

**Delivered** invited lecture on "Inclusive City and Sustainable Development" at UGC Sponsored Refresher Course on *Built Environment and Sustainable Technologies* organised by department of Architecture at jadavpur University on 4<sup>th</sup> January 2017.

**Delivered** invited address on "Human Rights : Some Opening Thoughts" at the UGC sponsored national seminar on *Human Rights: Challenges and Perspectives in Indian Context*.

**3. B. Seminars/Conferences/Symposia/Attended:**

Attended and Presented paper on "Methodological issues in the writings of M.N. Srinivas, N.K. Bose and Surajit Sinha" at the workshop on *Indian Sociological Tradition* organised

### **Annual Report 2016-17**

by Department of Sociology North Bengal University under its SAP-DRS-II (UGC) programme held on 28-29 March, 2017.

#### **3. E. Orientation and Refresher Courses Organised:**

Acted in the capacity of Course Coordinator in organising a course on *Contemporary Cultural Studies* under the MHRD scheme of Global Initiative of Academic Networks (GIAN) at the School of Media, Communication and Culture at Jadavpur University held on 5<sup>th</sup>-17<sup>th</sup> December 2016. The course was conducted by Prof. John Hutnyk from Graduate Institute for Social Research and Cultural Studies, National University of Chiao Tung, Taiwan and RMIT University, Melbourne, Australia. The course was well attended by university and college teachers, PhD and MPhil students and independent researchers.

#### **6. Major Achievements**

Oxford bookstore Calcutta in collaboration with Cambridge University Press launched my book on *Living with Disasters: Communities and Development in the Indian Sundarbans* published in February 2016 by Cambridge University Press at the Oxford Bookstore in Kolkata on 6<sup>th</sup> April, 2016. A panel, consisting of Prof. Suranjan Das, Vice-Chancellor, JU, Prof Ranabir Samaddar, Professor Contemporary Studies on Forced Migration from Calcutta Research Group and Prof. Roma Chatterji from Department of Sociology, Delhi School of Economics, was organised to reflect on the book. The event was well attended by academics, activists, scholars.

#### **DR. PIYALI SUR, ASSISTANT PROFESSOR**

##### **1. A. Courses Taught:**

Indian Society: Selected Issues in M.A First Year, First Semester (June -December); Social Statistics; Sociology of Gender in M.A. Second Year, Second Semester (January – June); Sociology of Crime, Deviance and Human Rights at the M.Phil Level.

##### **2. A. Area of Research Activities : (Broad Areas)**

Sociology of Gender, Sociology of Childhood, Sociology of Crime and Deviance

##### **3. A. Invited Lectures Delivered/Sessions Chaired:**

Chaired Session II RC-24 (Sociology of Childhood and Youth) at 42<sup>nd</sup> All India Sociological Conference held at Tezpur University on 27<sup>th</sup>-30<sup>th</sup> December, 2016.

Invitee Speaker in a UGC Sponsored two day National Seminar on India and her Neighbours: Exploring the Social, Political and Historical Dynamics organized by the departments of Sociology, Political Science and History at SonarpurMahavidyalaya held on 6<sup>th</sup> and 7<sup>th</sup> March, 2017.

Delivered a seminar talk on “Conversations on Gender” on 7th march, 2017 at The Heritage Academy.

Resource Person on 8<sup>th</sup> March, 2017 in a two day State level seminar on ‘Gender and Women’s Studies’ at Scottish Church College.

##### **3. B. Seminar/Workshop/Conference/Symposium Attended:**

(Name of the Teacher, Name of the Paper Presented, Name of the Seminar, Place, Duration)

##### **Papers Presented at International Conferences:**

Presented a paper entitled ‘**Children, Gender, Class and Fashion in Kolkata:**

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**An Intersectional Analysis of Gender** in 3<sup>rd</sup> ISA Forum in Sociology held at University of Vienna from 10<sup>th</sup> to 14<sup>th</sup> July, 2016.

Presented a paper entitled **'In Quest of Global Beauty: Gender-Technology Interface through Body Beautification'** in 3<sup>rd</sup> ISA Forum in Sociology held at University of Vienna from 10<sup>th</sup> to 14<sup>th</sup> July, 2016.

**Papers Presented at National Conferences:**

**'Beauty Blogs in Consumer Culture: A Redefinition of Femininity'** at the 42<sup>nd</sup> All India Sociological Conference held at Tezpur University, Assam on 27<sup>th</sup>-30<sup>th</sup> December, 2016.

**NUTAN MARIAN TIGGA : ASSISTANT PROFESSOR**

**1. A. AREA OF RESEARCH ACTIVITIES**

TRIBAL ISSUES, WORK AND INDUSTRY, SPORTS

A. INVITED LECTURES DELIVERED/ SESSIONS CHAIRED: CO-CHAIRING A SESSION AT AN INTERNATIONAL CONFERENCE ON SOCIOLOGY OF RELIGION IN A PLURALISTIC SOCIETY, JADAVPUR UNIVERSITY, APRIL 7-9, 2016.

**4. B. ARTICLES PUBLISHED IN JOURNALS**

Nutan Marian Tigga *Taking sides with nature*, Man in India, Volume : No. 96 (2016) Issue No. :11 (2016)

**Professor Dalia Chakrabarti**

**2. A. Area of Research Activities:** Cultural Studies, Visual Sociology, Urban Studies

**3. A. Invited Lectures Delivered/ Sessions Chaired**

1. Keynote Speaker in two-day seminar on Fashion, Age and Society : The Role of Media in the Constitution of Identities, 3-4 February, 2017 at The Bhawanipore Education Society College, Kolkata.

2. Two lectures on Religion and Social Stratification in One-year PG Diploma Course in 'Society, Religion and Social Work', at Centre for the Study of Religion and Society, Jadavpur University, on 24.03.17

**3. B. Seminar/Conference Attended**

1. Attended International Conference on Sociology of Religion in a Pluralistic Society, organized by Centre for the Study of Religion and Society, Jadavpur University, in collaboration with Lancaster University, UK and NSS, Jadavpur University, 7-9 April, 2016

**DR. RUBY SAIN : PROFESSOR**

**2. A. Sociology of Religion**

**B. Sociology of Health and Illness**

**C. Research Methods**

**2. B. Major Research Project**

**Departmental/Individual**

**Name of the Project**

**Funding Agency**

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1. Principal Investigator of ongoing Project '**COMPARATIVE STUDY OF RELIGIONS**', funded by MHRD through UGC under NME-ICT.
2. Co-investigator of ongoing Project  
**Global Project on Religion among Young People** in collaboration with Prof. Peter Nynas, Department of Religious Studies, funded by University of Abo Academy, Finland, 2013-2018.

**PROJECT COMPLETED**

3. Co-investigator : Study title: The Settlement Experiences of Bangladesi Migrants in Kolkata India.  
Sponsor: Shastri Indo- Canadian Institute , New Delhi. PI - Prof.Lori Wilkinson, **University of Manitoba, Winnipeg, Canada, 2014-16( 30<sup>th</sup> June)**
4. Co- investigator of UK/BRICS PROJECT with Prof. Andrew Dawson, **Lancaster University, UK. 2013 -2016( 31<sup>st</sup> July)**
5. Co- investigator of “ **Religion and Development**” in collaboration with **Prof.PinitRatanakul, The College of Religious Studies, Mahidol University, Thailand, 2015-2016( 31<sup>st</sup> July)**

**3. A. Invited Lectures Delivered/Session Chaired:**

**RELIGIOUS EDUCATION IN SOUTH ASIA, 30-11-2016, University of Stockholm. Sweden 2hrs. Organized by University of Stockholm. Sweden**  
**ACADEMIC STUDY OF RELIGION IN SOUTH ASIA, 2-12-2016, Uppsala University, Sweden. 2hrs. Organized by Uppsala University, Sweden**  
**ECOLOGY, ENVIRONMENT AND RELIGION, 06-02-2017, Dhaka University, Bangladesh.**

**B. SEMINAR/WORKSHOP/CONFERENCE/SYMPOSIUM ATTENDED**

Attended the Workshop on Social Work at Netaji Open University, Salt Lake Campus on 25-5-2016.

Participated a 2 Day International conference on INDIA AND CHINA IN EMERGING ASIAN DOMAIN THE ROAD AHEAD at Vivekananda Hall, JU.

**C. SEMINAR/WORKSHOP/CONFERENCE/SYMPOSIUM ORGANIZED**

Organized a 3 Day International conference on **Sociology of Religion in a Pluralistic Society** in collaboration with Lancaster University, UK from **7 to 9 April 2016** in the campus of Jadavpur University.

**4. A. BOOKS/MONOGRAPHS/Etc. PUBLISHED**

**Ageing Among the Muslims, Rachayita, Kolkata , 2016.**

**B. ARTICLES PUBLISHED IN /BOOKS**

“THE SOCIOLOGY OF HINDU RELIGION” in **WARP AND RAGS OF RELIGION**, Edited by DANIEL ENSTEDT, GORAN LARSON , FERDINANDO SARDELLA, Goteborg University, Sweden, 2016.

**5. Collaborative Programmes**

**Global Project on Religion among Young People** in collaboration with Prof .Peter Nynas, Department of Religious Studies, funded by University of Abo Academy, Finland, 2013-2018.

***Annual Report 2016-17***

## ARCHITECTURE

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H.O.D. : Prof. Suchandra Bardhan  
E-mail : hod@arch.jdvu.ac.in/  
hodarchitecture@jadavpuruniversity.in

### 1. A. Courses Offered:

Name of the Course	Duration of Course	No. of Students Enrolled
Bachelor of Architecture	5 Years	40
Master of Architecture (Urban Design)	2 Years	08

### B. Number of Faculty Members: 9

### 2. A. Area of Research Activities:

**Prof. Dr. Shubhrajit Das:** Architecture Theory, Criticism and Pedagogy

**Prof. Tapas Kumar Bhattacharya:** Biomorphic architecture, Building construction & Building services

**Prof. Dr. Jayita Guha Niyogi:** Town and Regional Planning, Transportation Planning, Integrated Land use and Traffic System

**Prof. Dr. Shivashish Bose:** Theory of Architecture & Urban Design; Architectural Design for Thermal Comfort & Energy Efficiency; Architectural and Urban Conservation; Urban Hydrology, Environmental Planning; Sustainable Development

**Prof. Dr. Madhumita Roy:** Energy Efficient Architecture

**Prof. Dr. Suchandra Bardhan:** Buildings and climate change & sustainability; Historic, regional & urban landscapes

**Prof. Dr. Sanjib Nag:** Architecture, Urban Housing, Urban Design and Related Urban Transformations, Urban Developments

**Dr. Debashish Das:** Urban Building Microclimate, Urban Climate Mapping, Building Science and Smart City planning

**Ms. Sanghamitra Sarkar:** Urban Design and related Developments

### 2. B. Major Research Project: (Departmental/Individual-Name of the Project-Funding Agency)

Prof. Dr. Shubhrajit Das–Study of the Crafts and Habitats of Building Craftsmen in West Bengal –DST PURSE Phase-II

Prof. Tapas Kumar Bhattacharyya–Development of Eco-friendly construction materials–DST PURSE Phase II

Prof. Dr. Jayita Guha Niyogi–Preparation of a Noise Pollution Map for East Kolkata – Prioritizing Landscaping as a Passive Control Measure–ST PURSE Phase II

Prof. Dr. Shivashish Bose–Assessment of indoor environmental quality of underground metro station of Kolkata: an investigative study–DST PURSE Phase-II



Prof. Dr. Suchandra Bardhan–Developing a Virtual Tool for Mapping and Accessing Vegetation Resources in Historic Gardens & Public Landscapes as a part of City Bio-Diversity Assessment–DST PURSE Phase-II

Prof. Dr. Sanjib Nag–Applying An Urban Design Methodology To Study Urban Development, Due To Impact Of MRTS–DST PURSE Phase II

Prof. Dr. Sanjib Nag–Studying Urban Development In Terms Of Urban Transformation Of Nodal Areas Having Residential Settlements Of Cities With Colonial Past–UGC XII Plan

Dr. Debashish Das–“Human-Biometeorological approach in Urban Planning Studies in warm-humid climates”–DST PURSE Phase-II

**3. A. Invited Lectures Delivered/(Session Chaired):(Name of the Teacher–Type of Participants–Name of the Seminar/Conference–Place–Duration)**

Prof. Dr. Shubhrajit Das–University Teachers– Idea/Design. UGC Human Resource Development Center–Jadavpur University, Salt Lake Campus–1 Day

Prof. Dr. Shubhrajit Das–General Public –*Sun Shadow: Light Darkness*. German Consulate–Goethe Institute, Calcutta–1 Day

Prof. Dr. Shubhrajit Das–University Teachers– *Light Darkness*. UGC-SAP-DRS III Seminar on ‘Language of Art’ at Department of Philosophy, North Bengal University–Siliguri–2 Day

Prof. Dr. Shubhrajit Das–Architects across India –*Looking at Banaras to Teach/Design* 12X12: FAAA Dialogues–Bangalore–1 Day

Prof. Tapas Kumar Bhattacharyya–Technical Members of staff and students–Heritage Preservation Jamalpur–3 hours

Prof. Dr. Suchandra Bardhan–Practising, Architects from India & abroad, teachers, students, Admin. officers–2<sup>nd</sup> International Workshop for ‘Gandhi Bhawan Conservation Planning: Keeping it Modern’ organized by Panjab University in association with DRONAH and IIT Madras.– Gandhi Bhawan, Panjab University, Chandigarh– 28th -29th April 2016

Prof. Dr. Suchandra Bardhan–UG & PG students of Illumination Engineering, Architecture, Elec. Engg. & Lighting professionals–Session Chair at Technical Session-I of second day of the ‘Luminescence’ – the first ever Two-day “National Student Congress on Illumination” jointly organized by ISLE and Electrical Engg. Dept., JU–Triguna Sen Auditorium, JU.–28<sup>th</sup> February 2017

Prof. Dr. Sanjib Nag–Speaker–Architecture & Landscape–Shree Ramkrishna Institute Of Sc.& Technology, Kolkata–20.03.2017

Dr. Debashish Das–Invited to present Paper “Urbanization and its impact on Urban built Form & surface Cover changes–Challenges for Climate resilient city development in Kolkata” – International Symposium on “**Challenges of Urban Development and Planning in India & China**”–Department of Geography, University of Kolkata–3<sup>rd</sup> January, 2017

**3. B. Seminar/Workshop/Conference/Symposium Attended: (Name of the Teacher–Name of the Paper Presented–Name of the Seminar/Conference–Place–Duration)**

Prof. Dr. Jayita Guha Niyogi–Attended–Faculty Development Program on Glass Architecture and Design–Dept. of Architecture, JU–29<sup>th</sup> Feb-5<sup>th</sup> March, 2016

Prof. Dr. Suchandra Bardhan–Attended as invited delegate–Two-day National Conference on ‘Making Heritage Buildings and Spaces Alive’ organized by ICOMOS India & Indian Museum.–Asutosh Birth Centenary Hall, Indian Museum–15-16<sup>th</sup> April 2016

Prof. Dr. Suchandra Bardhan–Attended as invited delegate–Charles Correa Annual Memorial Lecture 2016 organized by Ambuja Group.–City Centre, Salt Lake, Kolkata–18<sup>th</sup> June 2016.

Prof. Dr. Suchandra Bardhan–Attended as invited delegate–One-day ‘Teaching Resources And Interactive Laboratory Simulations (TRAILS) Awareness Program organized by School of Education Technology, JU–H.L.Roy Auditorium, JU–17<sup>th</sup> August 2016

Prof. Dr. Suchandra Bardhan–Attended as invited delegate–One-day TEQIP-II National Workshop on “Revisiting Intellectual Property Rights in the context of Recent Developments in Science & Technology” organized by FET, JU– H. L. Roy Auditorium, JU.–20<sup>th</sup> October 2016

Prof. Dr. Suchandra Bardhan–‘An Introduction to Urban Landscape of Kolkata’–Seven-day SEARCH Workshop 2016 (21-27 Dec.’16) on ‘Landscape Urbanism’ organised by SEARCH & IIT-Kgp.’s School of Infrastructure Design–IIT Kolkata Centre–22<sup>nd</sup> December 2016

Prof. Dr. Suchandra Bardhan–Quantifying Sustainability: Assessment of Carbon Foot-print of Buildings’–Three-week UGC-HRDC Refresher course ‘BEST’ organized by UGC-HRDC, JU & Architecture Dept., JU–Architecture Dept., JU–9<sup>th</sup> January 2017

Dr. Debashish Das–Smart Maps for Smart Cities: Approaches, Adaptations & Innovations–UGC sponsored National Seminar on “Application and emerging Trends of Geospatial Technologies for Sustainable resource Analysis and Management”–Dept. of Geography, Kabi sukanta Mahavidyalaya–13<sup>th</sup> January, 2017

Dr. Debashish Das–Course on “ Landuse /Landcover Change Modelling and Prediction”–GIAN Course–MNIT, Jaipur, India–July 4-8, 2016

Dr. Debashish Das–“Energy Conservation Building Code” Workshop–**National workshop on ECBC** –Architects & Engineers Guild & Dept. of Architecture, Jadavpur University–20<sup>th</sup> & 21<sup>st</sup> Aug, 2016

Ms. Sanghamitra Sarkar–Attended–ICOMOS Symposium – Making Heritage Buildings and Spaces Alive–Kolkata–15<sup>th</sup> -16<sup>th</sup> April 2016

**3. C. Seminar/Workshop/Conference/Symposium Organized: (Name of the Teacher–Name of the Paper Presented–Name of the Seminar/ Conference/Workshop–Place–Duration)**

Prof. Dr. Jayita Guha Niyogi–Attended–One Day Workshop on ‘Awareness in Fire Safety & Recent Technologies’ under Technical Education Quality Improvement Programme (TEQIP - II)–Dr. Triguna Sen Auditorium, JU, organised by Jadavpur University, Kolkata–21<sup>st</sup> October, 2016

Prof. Dr. Jayita Guha Niyogi–Attended–A three-day event by Architects & Engineers Guild on Energy Conservation Building Code (ECBC)–H.L. Auditorium, JU–19<sup>th</sup> -21<sup>st</sup> August 2016.

Prof. Dr. Suchandra Bardhan–Professional work–First Lecture of Academic Lecture Series, session 2016-17 by Ar. Abin Chaudhuri, practising Architect. –Dept. of Architecture, JU–18<sup>th</sup> August 2016

Prof. Dr. Suchandra Bardhan–‘Design As Democratic Professionalism’–Second Lecture of Academic Lecture Series, session 2016-17 by Dr. Mallika Bose, Associate Professor, Graduate Program–Professor in Charge, Dept. of Landscape Architecture, The Pennsylvania State University, PA.–Dept. of Architecture, JU–16<sup>th</sup> September 2016

Prof. Dr. Suchandra Bardhan–‘Nature, Architecture & Urban Design’–Third Lecture of Academic Lecture Series, session 2016-17 by Ar. A. N. Sengupta, an internationally acclaimed architect–planner.–Dept. of Architecture, JU–10<sup>th</sup> November 2016

**3. D. Orientation Courses/Refresher Courses Attended:(Name of the Teacher–Title of the Course–Duration–Place)**

Prof. Tapas Kumar Bhattacharyya–Presented a paper titled ‘Sustainability principles with that of Mother Nature on 3<sup>rd</sup> Jan, 2017 in a Three-week Refresher Course on “Built Environment & Sustainable Technologies (BEST)” for teachers of Architecture & Civil Engineering–2nd to 21st January, 2017–(UGC-HRDC), JU and Dept. of Arch

Prof. Dr. Jayita Guha Niyogi–Presented a paper titled ‘Sustainable Transportation Planning Approach’ on 5<sup>th</sup> Jan, 2017 in a Three-week Refresher Course on “Built Environment & Sustainable Technologies (BEST)” for teachers of Architecture & Civil Engineering–2nd to 21st January, 2017– (UGC-HRDC), JU and Dept. of Arch

Ms. Sanghamitra Sarkar–Refresher Course in Architecture and Civil Engineering title “ Built Environment & Sustainable Technologies” –Three weeks–Dept. of Architecture, JU

**3. E. Orientation Courses/Refresher Courses Organized: (Name of the Teacher–Title of the Course–Duration–Place)**

Prof. Dr. Suchandra Bardhan & Dr. Debashish Das–Refresher Course in Architecture and Civil Engineering, titled “Built Environment & Sustainable Technologies (BEST)” –Three weeks (2<sup>nd</sup> January -21<sup>st</sup> January 2017)–Dept. of Architecture, JU

**4. A. Books/Monographs etc. Published:(Name of the Teacher–Name of the Book/Monograph etc.–Name of the Publisher)**

Prof. Dr. Shivashish Bose–*All about Architecture education in India*, Annual Edition 2017, Vol. 4, 2017 Edition, p.29. Article titled “Architecture: The King of all engineering professions”.–Council of Architecture, India.

Prof. Dr. Shivashish Bose(Co-author)–*From Poverty, Inequality to Smart City*, Proceedings of the National Conference on Sustainable Built Environment 2015 organized by IIT-Roorkee, F. Seta et al. (Eds.), Chapter 10, pp.143-159. Paper titled “ Evaluating the Effect of Building Envelope on Thermal performance of Houses in Lower Himachal Pradesh”.–Springer Transactions

Dr. Debashish Das–*Climate & Society- A Contemporary Perspective*, 2016, Chapter 9, pg. 103-113, ISBN: 978-81-923448-0-5, Co-Author–University of Kolkata

Dr. Debashish Das–*Environment & Sustainability*, 2016, pg. 44-50, ISBN: 978-93-83010-30, Co-Author–J.B Books & Learning, W.Bengal

Dr. Debashish Das–Landuse Planning & Management, Sept ,2016, pg. 101-108, ,ISBN : 978-81-928047-6-7–Institute of Landscape, Ecology and Ekistics, Kolkata

**4. B. Articles Published in Journals, Proceedings and Magazines: (Name of the Teacher–Name of the Articles–Name of the Journal–Date of Publication–Volume)**

**Prof. Dr. Shivashish Bose** (Co-author)–In-situ Redevelopment for Slum Rehabilitation in Kolkata.–*Tekton - A Journal of Architecture, Urban Design & Planning*; ISSN: 2349-6282–March, 2017– Vol. 4, Issue 1, March 2017,

**Prof. Dr. Shivashish Bose**(Co-author)–Assessing the Need of Adaptive Changes for Emerging NORCs in Urban India.–*Creative Space*; ISSN. 2321-3892–July 2016–Vol. IV, No. 1 (July 2016)

**Prof. Dr. Shivashish Bose**(Co-author)–Exploring impact of opaque building envelope components on thermal and energy performance of houses in lower western Himalayans for optimal selection.–*Journal of Building Engineering*; Elsevier ISSN: 2352-7102–September 2016 Volume 7, September 2016

**Prof. Dr. Suchandra Bardhan** (Co-author)–“Density and Neighbourhood Environmental Quality – A Comparative Study in the context of Indian Cities”,–*International Journal on Emerging Technologies*, ISSN: 0975-8364–February 2017–8(1): 2017,pp. 315-323

**Prof. Dr. Suchandra Bardhan** (Co-author)–“Tracing the importance of Safety Audit in making Inclusive Cities: A step towards Smart Cities”–International Conference- Green Urbanism (GU 2016), *Procedia Environmental Sciences*, ISSN: 1878-0296–2017 –37 (2017): pp. 420 – 428.

**Prof. Dr. Sanjib Nag** (Co-Author)–Globalization Related Urban Development In Historic Cities : Formulating Strategies And Recommendations–*Architecture Time Space & People*–September 2016 –Vol. 16, Issue 09, Pages 16 - 24

**Prof. Dr. Sanjib Nag**(Co-Author)–Urban Transformations : Relevance Of A Research Work–*Journal Of The Indian Institute Of Architects*–September 2016–Vol. 81, Issue 09, Pages 08-14

**Prof. Dr. Sanjib Nag**(Co-Author)–In Search Of Research Methods–*Journal Of The Indian Institute Of Architects*–December 2016–Vol. 81, Issue 12, Pages 27 -28

**Prof. Dr. Sanjib Nag** (Co-Author)–Evolving Methodology For Visual Perception Of Urban Place : Future Direction To Incorporate Geospatial Context –*SPANDREL*–Monsoon 2016 - 17–Issue 12, Pages 114 -122

**Prof. Dr. Sanjib Nag**(Co-Author)–Spontaneous Public Spaces : Understanding The Concept –*Conference Proceedings – Urban Regeneration : A New Perspective To Heritage Conservation*–February 2017–Pages 36 -42

**Dr. Debashish Das**–Analyzing various approaches for Measurement of solar PV Potential through Urban Built Form geometry modifications, Co-Author–*International Journal of computer Sciences and Engineering*, E-ISSN :2347-2693–Aug,2016–Vol-4,

**Ms. Sanghamitra Sarkar**–Commercial centers in Indian cities in the light of universal design–*Design for all*–Dec 2016–Volume 11

## 5. Collaborative Programmes:

### Prof. Dr. Suchandra Bardhan

1. The Department organized the Second 'Prof. Amiya Kumar Banerjee Award' event in collaboration with 'Jadavpur University Alumni Association of Architecture Department' (JUAAAD) on 18<sup>th</sup> August 2016 in the Department.
2. The Department organized the ECBC Seminar and Workshop in collaboration with Architects Engineers Guild, WB Chapter, at H.L.Roy Auditorium, JU on 19<sup>th</sup> – 21<sup>st</sup> August 2016.
3. Like previous years, the Department organized the Everest Group's UG Thesis Award program on 23<sup>rd</sup> November 2016 in collaboration with M/s Everest India Ltd. (EIL) as a part of industry-academia interface, wherein EIL awarded the over-all graduate topper of Architecture, 2014-'15 with a special recognition consisting of a Plaque, Certificate and Award money.
4. The Department also organized a GRC hands-on workshop for the students of 3<sup>rd</sup> Yr. B. Arch. on 27<sup>th</sup> January 2017, sponsored by BIRLA WHITE unit of M/s Ultratech Cement Ltd. as a part of the BIRLA WHITE *YuvaratnaNXT* design competition.

### Ms. Sanghamita Sarkar

1. Ms. Sanghamitra Sarkar has co-ordinated the INSDAG Architecture Award 2016 for the East Zone.

## 6. Major Achievements:

### Prof. Tapas Kumar Bhattacharyya

1. Prof. Tapas Kumar Bhattacharyya taught on a teaching cum training service titled "Training the Trainers for Interior Design & Site Supervision" to some selected trainers of M/s. Godrej & Boyce Mfg. Co. Ltd. under GODREJ CSR Employability Initiative 'Godrej-Disha' during 7-9 June 2016 at the Department of Architecture of Jadavpur University. The program was convened by Prof. Tapas Kumar Bhattacharyya and coordinated by Prof. Shivashish Bose.
2. Prof. Tapas Kumar Bhattacharyya has been selected to act as a member of the Board of Professional Studies of Mizoram University
3. Has participated as a member of the Doctoral Selection Committee for pre-Registration of Research Scholars at NIT, Patna
4. Acted as Paper-setter for a number of public examinations for different states.

### Prof. Dr. Jayita Guha Niyogi

1. Prof. J. Guha Niyogi taught on a teaching cum training service titled "Training the Trainers for Interior Design & Site Supervision" to some selected trainers of M/s. Godrej & Boyce Mfg. Co. Ltd. under GODREJ CSR Employability Initiative 'Godrej-Disha' during 7-9 June 2016 at the Department of Architecture of Jadavpur University. The program was convened by Prof. Tapas Kumar Bhattacharyya and coordinated by Prof. Shivashish Bose.
2. Prof. Jayita Guha Niyogi acted as external expert of the Selection Committee meeting for recruitment of faculty in the Department of Ranbir&Chitra Gupta School of Infrastructure Design & Management, IIT Kharagpur, on 24th June, 2016.
3. Prof. Jayita Guha Niyogi acted as external expert of the Selection Committee meeting for recruitment of faculty in the Department of Architecture and Regional Planning IIT Kharagpur on 24th June, 2016.



4. Prof. Jayita Guha Niyogi acted as external examiner of pre submission viva of MURP planning thesis on 27th April 2016 in Dept of Architecture, T &RP, IEST, Shibpur.
5. Prof. Jayita Guha Niyogi acted as external examiner of MURP thesis final on 16 May 2016, in Dept of Architecture, T &RP, IEST, Shibpur.
6. Prof. Jayita Guha Niyogi acted as external examiner of MURP thesis final on 17 May 2017, in Dept of Architecture, T &RP, IEST, Shibpur.

**Prof. Dr. Shivashish Bose**

1. Sri Amitava Sarkar (Registered for Ph.D. on 22.10.2013) who was supervised by Prof. Dr. Shivashish Bose has been awarded Ph.D. (Engineering) Degree by Jadavpur University on 11.08.2016.

**Prof. Dr. Suchandra Bardhan**

1. Prof. Suchandra Bardhan was invited to act as an External Examiner for the Final Jury and viva-voce for Final Year B. Arch. Thesis Examination at Dept. of Architecture, Birla Institute of Technology (BIT)-Mesra, Ranchi on 1<sup>st</sup> & 2<sup>nd</sup> December, 2016.
2. Prof. Suchandra Bardhan, on invitation, acted as a Mentor to select group of participants at the SEARCH workshop on 'Landscape Urbanism' organized by SEARCH & IIT-Kgp from 21-27 December 2016.
3. Prof. Suchandra Bardhan was invited to act as an External Examiner for the Review Juries for Final Year B. Arch. Thesis Examination at Dept. of Architecture, Town and Regional Planning, IEST (formerly, BESU), Sibpur, Howrah in February and March 2017.

**Prof. Dr. Sanjib Nag**

1. Dr. Sanjib Nag is a Member of Board Of Studies, of WBUT, since 2011.
2. Dr. Sanjib Nag is a Member of Doctoral Committee of Dept. of Arch. T&RP, IEST, Shibpur, since 2013.
3. Dr. Sanjib Nag served as an Expert on Selection Committee of Faculty of Arch., Sri Sri University, Cuttack, in January 2017.
2. Dr. Sanjib Nag served as a Jury of National Student Award Competition, INSDAG, Kolkata, in January 2017.
3. Dr. Sanjib Nag served as an Paper Setter / Moderator of NATA, Council Of Arch., Delhi, in February 2017.
4. Dr. Sanjib Nag served as an External Examiner of School of Arch., Techno India University, Salt Lake City, in June & December 2016.
5. Dr. Sanjib Nag served as an External Examiner of School of Arch., Om Dayal group of Institutions, Uluberia, in December 2016.
6. Dr. Sanjib Nag served as an External Examiner, of Dept. of Arch. T&RP, IEST, Shibpur, in November 2016.

**Ms. Sanghamita Sarkar**

1. She has also been jury member for the Zonal and Final Rounds of the INSDAG Architecture Award 2016



## CHEMICAL ENGINEERING

Phone : + 91-33-2414-6378

Int. : 2457-2246

H.O.D. : Prof Kajari Kargupta

E-mail : hod@chemical.jdvu.ac.in

hodchemical@jadavpuruniversity.in

### 1. A. Courses Offered :

Name of the Course	Course Duration	Intake Capacity
Bachelors Degree in Chemical Engineering	4 Years	92
Master's Degree in Chemical Engineering	2 Years	19
Master's Degree in Bioprocess Engineering	2 Years	10

### 1. B. Number of Faculty Members:

Sanctioned post – 29

Currently: 19

### 2. A. Area of Research Activities:

- Bioprocess Engineering
- Energy Engineering
- Industrial Pollution Control and waste management
- Interfacial Science and technology
- Membrane separation
- Nano Science & Technology
- Process Intensification
- Computational Fluid Dynamics
- Reaction Engineering and Catalysis

### 2. B. Major Research Projects:

#### National (19)

1. Investigators: Dr. A. Bhowal and Dr. S. Datta  
Project Title: Process Intensification in concentration of Fruit juices  
Funding Agency: University Grants Commission,  
Amount: 14.5 Lakhs  
Duration: 2015-2018.
2. Investigators: Dr. Chiranjib Bhattacharjee  
Project title: Development of novel electrofloatation/ electrocoagulation enhanced membrane module for oily wastewater treatment  
Funding Agency: DST – TSDP,  
Amount: 35.112 Lakhs,  
Duration: 2016-18.
3. Investigator: Dr. Ujjaini Sarkar

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Project Title: Environmental Observatory: Modelling the Photochemistry of Surface Ozone and its Unusual Precursors with a Regional Model.

Funding Agency: ISRO-GBP/-ATCTM,

Amount: 115.15 Lakhs,

Duration: 2009-2018.

4. Investigator: Dr. Ujjaini Sarkar  
Project Title: Biorefining *Crotalaria juncea* (Sunn-Hemp): Prospects of utilizing waste glycerol for the production of Succinic Acid.  
Funding Agency: UGC (India),  
Amount: 13.325 Lakhs,  
Duration: 2015-2018.
5. Investigators: Dr. R. Chakraborty  
Project Title: Intensification and Optimization of Conversion of Bio-Glycerol into Value-added Products using Electromagnetically Irradiated Reactor through Novel Protocols  
Funding Agency: UGC (UGC Major Research Project),  
Amount: 14.29 Lakhs,  
Duration: 2015-2018.
6. Investigators: Dr. P Das,  
Project Title: Bioremediation of oil spills and removal of aromatic hydrocarbons using marine microorganisms with nanoparticles: Treatment efficiency, optimization, modeling and simulation studies  
Funding Agency: MOES,  
Amount: Rs 33.64 Lakhs,  
Duration: 2014-2017.
7. Investigators: Dr. P Das, Prof. A Bhowal, Prof S Datta, Prof. A Mukhopadhyay  
Project Title: Assessment and modeling on decolourization of textile effluents by coupled with biodegradation in a fluidized bed bioreactor and evaluation of reactor performance  
Funding Agency: WBDBT,  
Amount: Rs18.36 Lakhs,  
Duration: 2014-2017.
8. Investigators: Dr. P Das  
Project Title: Green synthesis of iron nanoparticles from manglicolous fungi of Indian Sunderban and their application in sequestration of heavy metals from contaminated water  
Funding Agency: DBT  
Amount: 55.04lakhs  
Duration:2016-2019.
9. Investigators: Dr. P Das  
Project Title: Removal of pharmaceutical derivatives present in waste water by advanced oxidation integrating with microstructure and rotating packed bed of grapheme (G)/Graphene oxide (GO)/GO-metal nanocomposites.

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Funding Agency: DST

Amount: 45.53 lakhs

Duration: 2017-2020.

10. Investigators: Dr. Sudeshna Saha

Project Title: Preparation of Novel Activated Carbon –TitaniaNanocomposite for Waste Water Treatment

Funding Agency: UGC Start-up Grant,

Amount: Rs 6 Lakhs,

Duration: 2015-2017.

11. Investigators: Dr. Sudeshna Saha

Project Title: Preparation and Characterization of Organic Nano particle from Waste Sugarcane Bagasse

Funding Agency: Jadavpur University Research Grant,

Amount: Rs 0.5 Lakhs,

Duration: 2015-2017.

12. Investigators: Dr. R. Chakraborty

Project Title:Hydrolysis of Lignocellulosic Food-waste using Prepared Cost-effective Catalyst;

Title: Hydrolysis of Lignocellulosic Food-waste using Prepared Cost-effective Catalyst;

Funding Agency: TEQIP-II (Jadavpur University)

Amount: 0.75 Lakh

Duration: 2015-1016.

13. Investigators: Dr. Ratna Dutta

Project Title: 'Drying characteristics ofMicrowave Assisted (MA) vacuum drying of Thompson Seedless grapes (*Vitisvinifera*L)'

Funding Agency: Innovative Research Activity under XII Plan, Jadavpur University Research Grant,

Amount: Rs 0.8 Lakhs,

Duration: 2015- 2016.

14. Investigators: Dr. Sudeshna Saha

Project Title: Derivation of fermentable sugar from lignocellulose biomass using ionic liquids: A step closer to green chemistry.

Funding Agency: TEQIP-II (Jadavpur University)

Amount: 0.75 Lakh

Duration: July-September, 2016.

15. Investigators: Dr. Sudeshna Saha

Project Title: Synthesis and Characterization of Activated Carbon from Natural Resources and Impregnation of Nano particles Thereof (2016-1yr)

Funding Agency: Jadavpur University Innovative Research Activity under XII Plan General Development Assistance,

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Amount: 0.8 Lakh  
Duration: 2015-2016.

16. Investigators: Dr. R. Chowdhury  
Project Title: Enhanced Energy Efficiency in Waste Water treatment and simultaneous generation of third generation Bio-fuel: Reactor Design in the thematic area  
Funding Agency: UGC sponsored UPE-II program of the Jadavpur University  
Amount: 13.5 Lakhs  
Duration: 2016-2018.
17. Investigators: Dr. Sudeshna Saha  
Project Title: A novel organic nanoparticle based aerogel production from lignocellulosic material with super adsorption capabilities. (2016-2019)  
Funding Agency: DST-SERB(Young Scientist),  
Amount: 21.15 lakhs  
Duration: 2016-2019.
18. Investigators: Dr. Chandan Guha  
Project Title: Reliability Analysis of Solid Rocket Motor Combustion System applying Analytical, Numerical and Statistical Simulation  
Funding Agency: DRDL CARS Project,  
Amount: 9.75 Lakhs  
Duration: 2014-2016.
19. Investigators: Dr. P Das  
Project Title: Synthesis of graphene oxide nanoplatelets and its application for the treatment of fluoride containing solution & Application of bioremediation technology for the remediation of fluoride containing water bodies  
Funding Agency: TEQIP-II (Jadavpur University)  
Amount: 0.75 lakhs  
Duration: 2015-2016.

**International (5)**

1. Investigators: Dr. Chiranjib Bhattacharjee, Prof. Gisle Øye (Norwegian University of Science and Technology)  
Project Title: Research and education within advanced hybrid separation techniques in industrial wastewater treatment  
Funding Agency: UGC Indo-Norwegian Cooperation Programme 2014(INCP)  
Amount: 66lakhs,  
Duration: 2015-18.
2. Investigators: Dr. Ujjaini Sarkar (PI) and Dr. Sudeshna Saha (Co-PI)  
Project Title: EcoLodge - Efficient production of Butyl-Butyrate from Lignocellulose derived Sugars  
Funding Agency: DST (India)-RCN (Norway),  
Amount: 29.54 Lakhs,  
Duration: 2015-2018.

3. Investigator: Dr. Ujjaini Sarkar (PI)  
Project Title: Significance of pharmaceuticals in the aqueous environment: A global catchment comparison and assessment of the treatment processes.  
Funding Agency: UKIERI (UK) UGC (India),  
Amount: Rs 23.972 Lakhs  
Duration: 2014-2016
4. Investigator: Dr. M. Rahaman  
Project Title: Hywater - Treatment of contaminated drinking water using a hybrid low-cost process.  
Funding Agency: DBT funded Inno Indigo,  
Amount: 35.068 Lakhs (JU share)  
Duration: 2015-18.
5. Investigators: Dr. R. Chowdhury, Dr. R. Chakraborty  
Project Title: CONVER-B: Development of efficient biomass conversion routes for biofuel production and utilisation  
Approving Agency: INNO INDIGO

**3. A. Invited Lectures Delivered/ Session Chaired: (10)**

1. Name of the teacher: Dr P Das  
Type of Participants: Invited lecture  
Name of Seminar/Conference: 5 days Short Term Program entitled 'Emerging Trends of Waste Management and Valorization (ETWMV-2016)  
Duration: July 8 – 12, 2016  
Place: NIT, Durgapur.
2. Name of the teacher: Dr. R. Chakraborty  
Type of Participants: Invited Lecture  
Name of Seminar/Conference: Talk on "Save Fuel-Save Future", organized by 'ShilpaBichitra'  
Duration: 31<sup>st</sup> January, 2017  
Place: Rotary Sadan" Chowringhee Road, Kolkata –700 020.
3. Name of the teacher: Dr. R. Chowdhury  
Type of Participants: Invited Lecture  
Name of Seminar/Conference: **"Waste to Energy Processes for organic waste water and lignocellulosics"**, TEQIP sponsored workshop titled "Recent Advancement in Energy Harvesting and Water Treatment Technologies" organized by  
Duration: 13<sup>th</sup> June, 2016  
Place: Chemical Engineering Department, Jadavpur University.
4. Name of the teacher: Dr. R. Chowdhury  
Type of Participants: Invited Lecture  
Name of Seminar/Conference: **"Application of RSM in Bioprocesses"** in the Faculty Development Programme on "Statistical Tools in Biological Data Analysis"  
Duration: 13<sup>th</sup> July, 2016  
Place: Biotechnology Department of Heritage Institute of Technology, Kolkata.

5. Name of the teacher: Dr. R. Chowdhury  
Type of Participants: Invited Lecture  
Name of Seminar/Conference: **“Biofuels from Indian Lignocellulosic Wastes through Pyrolysis: A Review with some Case Studies”** at 6<sup>th</sup> International Conference on Solid Waste Management  
Duration: 24-26 November, 2016  
Place: Jadavpur University.
6. Name of the teacher: Dr. R. Chakraborty  
Type of Participants: Session Chair  
Name of Seminar/Conference: 6<sup>th</sup> International Conference on Solid Waste Management  
Duration: November 24 - 26, 2016  
Place: Jadavpur University, Kolkata.
7. Name of the teacher: Dr. R. Chowdhury  
Type of Participants: Session Chair  
Name of Seminar/Conference: 6<sup>th</sup> International Conference on Solid Waste Management  
Duration: November 24 - 26, 2016  
Place: Jadavpur University, Kolkata.
8. Name of the teacher: Dr. R. Chowdhury  
Type of Participants: Session Chair  
Name of Seminar/Conference: **Indo-UK workshop on Microfluidics for Affordable Healthcare**  
Duration: 20<sup>th</sup> January, 2017  
Place: Power Engineering Department, Jadavpur University.
9. Name of the teacher: Dr. U. Sarkar  
Type of Participants: Invited talk  
Name of Seminar/Conference: CRIBIQ Conference- Biobased economy in Quebec: Innovation, Challenges and Opportunities by Canadian Society for Chemical Engineering (CSChE)  
Duration: 16<sup>th</sup> October, 2016  
Place: Quebec City, Canada
10. Name of the teacher: Dr. P Das  
Type of Participants: Session Co-Chair  
Name of Seminar/Conference: 6<sup>th</sup> International Conference on Solid Waste Management  
Duration: November 24 - 26, 2016  
Place: Jadavpur University, Kolkata.

**3 B. Seminar/Workshop/Conference/Symposium Attended: (22)**

1. Name of teacher: Dr. R. Chakraborty  
Name of paper presented: Attended  
Name of seminar: TEQIP-II sponsored one-day workshop entitled “Revisiting Intellectual Property Rights in the Context of Recent Developments in Science & Technology”  
Place: Jadavpur University  
Duration: 20<sup>th</sup> October, 2016.



2. Name of teacher: Dr. R. Chakraborty  
Name of paper presented: Attended  
Name of seminar: TEQIP-II sponsored one-day workshop entitled "Solidification and Phase Transformation"  
Place: Jadavpur University  
Duration: 26-27 August, 2016.
3. Name of teacher: Dr. S. Saha  
Name of paper presented: **Effect of solid support and calcination temperature on the crystallinity of TiO<sub>2</sub> nanoparticles.**  
Name of seminar: ICANN 2016  
Place: New Delhi  
Duration: 4-5 November, 2016.
4. Name of teacher: Dr. S. Saha  
Name of paper presented: **Synthesis and characterization of cellulose nanocrystals from sugarcane bagasse: in depth study on reaction mechanism**  
Name of seminar: ICANN 2016  
Place: New Delhi  
Duration: 4-5 November, 2016.
5. Name of teacher: Dr. S. Saha  
Name of paper presented: **EcoLodge - Alkaline peroxide pretreatment of Sunn hemp lignocellulose biomass for efficient production of butyl butyrate**  
Name of seminar: EUBCE 2016-European Biomass Conference and Exhibition  
Place: RAI Amsterdam Exhibition and Convention Centre, Amsterdam  
Duration: 6-9 June, 2016.
6. Name of the Teacher: Dr. U. Sarkar  
Name of paper presented: Synthesis and Characterization Of Some Novel Catalysts For High Pressure Hydrogenation Of Succinic Acid  
Name of seminar: Fifth International Conference On Advances in Applied Science and Environmental Engineering - ASEE 2016, by Institute of Research Engineers and Doctors  
Place : Hotel - G Tower Hotel, Kuala Lumpur, Malaysia,  
Duration: 20-21 September, 2016
7. Name of the Teacher: Dr. U. Sarkar  
Name of paper presented: Synthesis and Characterisation of a Natural Gum Obtained from *Crotalaria juncea*: Effect of Various De-gumming Processes  
Name of seminar: 66th Canadian Chemical Engineering Conference, by Canadian Society for Chemical Engineering (CSCHE)  
Place : Quebec City, Canada.  
Duration: 16-19 October, 2016

8. Name of the Teacher: Dr. U. Sarkar  
Name of paper presented: Scale-up of a Modified Soxhlet Apparatus for Extraction of *Crotalaria juncea* Seed Oil using Dimensional Analysis  
Name of seminar: 66th Canadian Chemical Engineering Conference, by Canadian Society for Chemical Engineering (CSCChE)  
Place : Quebec City, Canada.  
Duration:16-19 October, 2016
  
9. Name of the Teacher: Dr. U. Sarkar  
Name of paper presented: Dynamics of a packed bed of functionalized carbon for treating pharmaceutical wastewater  
Name of seminar: 3rd IWA Specialized International Conference Ecotechnologies for Wastewater Treatment (ecoSTP16)  
Place : Cambridge, UK  
Duration: 27-30 June, 2016
  
10. Name of the Teacher: Dr. U. Sarkar  
Name of paper presented: Effects of Various Compositions of RuCocatalysts hydrogenation of Succinic Acid: Process Optimization for the production of 1,4Butanediol  
Name of seminar: APCAT-7: Asia Pacific Conference on Catalysis  
Place : Mumbai, India  
Duration: 17-21 January, 2017
  
11. Name of the Teacher: Dr. U. Sarkar  
Name of paper presented: Optimization of saccharification of alkaline peroxide pretreated *Crotalaria juncea* fibre for efficient production of Second Generation Biofuels  
Name of seminar: APCAT-7: Asia Pacific Conference on Catalysis  
Place : Mumbai, India  
Duration: 17-21 January, 2017.
  
12. Name of the Teacher: Dr. U. Sarkar  
Name of paper presented: A Novel Protocol of Pretreatment affecting the Kinetic Pathway of Enzymatic Hydrolysis of Delignified *Morus serrata* (MR).  
Name of seminar: 2nd International Conference on Bio Science and Biotechnology 2017 (BIOTECH-2017)  
Place: Colombo, Sri Lanka.  
Duration: 09th - 10th March, 2017
  
13. Name of the Teacher: Dr. K. Kargupta  
Name of paper presented: Sulfonated poly (ether ether ketone) based nanocomposite membrane for polymer electrolyte membrane fuel cell  
Name of seminar: ICMS 2017, Second International Conference on Material Science  
Place : Tripura University, Tripura, India  
Duration: February 16-18, 2017.

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14. Name of the Teacher: Dr. K. Kargupta  
Name of paper presented: Effect of Functionalised Graphene on Sulfonated poly(ether ether ketone) Membrane  
Name of seminar: MACRO 2017, International Conference on Polymer Science and Technology  
Place : Thiruvananthapuram, India  
Duration: January 8-11, 2017.
15. Name of the Teacher: Dr. K. Kargupta  
Name of paper presented: Enhanced hydrogen generation using G-Co-Pt catalyst: Effect of process of synthesis  
Name of seminar: National Conference on Nanotechnology: Materials and Applications (NCoN:M&A 2016)  
Duration: 16th - 17th June 2016.
16. Name of the Teacher: Dr. K. Kargupta  
Name of paper presented: A Review: Role Of Graphene In Advanced Energy Sectors, Proceedings of the National Workshop on Recent Advances and Development in Energy Sectors  
Name of seminar: National Workshop on Recent Advances and Development in Energy Sectors, NWRADES 2016  
Duration: 3rd September 2016.
17. Name of the Teacher: Dr. K. Kargupta  
Name of paper presented: A Review of Graphene and Graphene based nano-hybrids towards Green Energy Generation  
Name of seminar: 6th IconSWM 2016  
Duration: 24th-26th November 2016.
18. Name of the Teacher: Dr. K. Kargupta  
Name of paper presented: A Cost Effective Hydrogen Generation By Using Graphene Based Mono-Metallic Catalyst : Synthesis, Characterization And Comparison Of G-Pt, G-Co Nano Catalysts  
Name of seminar: National Seminar On Advances In Chemical Science And Technology  
Duration: 12-13th December 2016.
19. Name of the Teacher: Dr. K. Kargupta  
Name of paper presented: Graphene supported bi-metallic Co-Ag nano-catalyst for enhanced dehydrogenation of sodium Borohydride  
Name of seminar: International Conference on Nano for Energy and Water (NEW) 2017 and Indo French Workshop on Water Networking  
Place : UPES, Dehradun  
Duration: Feb 22-24 2017.
20. Name of the Teacher: Dr. K. Kargupta  
Name of paper presented: A enhanced hydrogen generation by using novel graphene supported co rich connected core(pt)-shell(co) nano-alloy catalyst

Name of seminar: INNOVA 17 conducted by IIChe  
Place:Jadavpur University  
Duration:25th March 2017.

21. Name of the Teacher: Dr. Saswata Bose  
Name of paper presented: Synthesis and Characterization of Sulfonated Aramid GrapheneNanoplatelet Composite Paper  
Name of seminar: 4<sup>th</sup> International Conference on Advances in Materials & Materials Processing (iCAMMP-iv)  
Place: IIT Kharagpur, West Bengal  
Duration: 5-7<sup>th</sup> November, 2016.

22. Name of the Teacher: Dr. Saswata Bose  
Name of paper presented: Sonochemical Approach to Prepare Graphene using Methyl Methacrylate as Solvent: Spectroscopic Study  
Name of seminar: Fourth International Symposium on Semiconductor Materials and Devices (ISSMD-4)  
Place: Jadavpur University, West Bengal  
Duration: 8-10<sup>th</sup> March, 2017.

**3 C. Seminar/Workshop/Conference/Symposium Organized: (10)**

1. Name of the teacher: Dr. R. Chakraborty  
Title of the workshop/conference/Symposium: 6<sup>th</sup> International Conference on Solid Waste management (6<sup>th</sup>IconSWM 2016)  
Type of Participation:Assistant Secretary  
Duration: 24-26 November, 2016  
Place: Jadavpur University, Kolkata.
2. Name of the teacher: Dr. R. Chakraborty  
Title of the workshop/conference/Symposium: Indian Institute of Chemical Engineers(IIChe) Students' Chapter, Jadavpur University and organized "INNOVA 2016"  
Type of Participation:Coordinator  
Duration: 7<sup>th</sup> April, 2016  
Place: Jadavpur University, Kolkata.
3. Name of the teacher: Dr. R. Chakraborty  
Title of the workshop/conference/Symposium: Indian Institute of Chemical Engineers (IIChe) Students' Chapter, Jadavpur University and organized "INNOVA 2017"  
Type of Participation:Coordinator  
Duration: 25<sup>th</sup> March, 2017  
Place: Jadavpur University, Kolkata.
4. Name of the teacher: Dr. R. Chowdhury  
Title of the workshop/conference/Symposium: TEQIP sponsored one-day workshop entitled "Revisiting Intellectual Property Rights in the Context of Recent Developments in Science & Technology"

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Type of Participation:Coordinator  
Duration: 20<sup>th</sup> October, 2016  
Place: Jadavpur University, Kolkata.

5. Name of the teacher: Dr. Ratna Dutta, Dr. Mehabub Rahaman, Dr. Saswata Bose  
Title of the workshop/conference/Symposium: Workshop on “Paradigm shift in Chemical Engineering”.  
Type of Participation:Coordinator  
Duration: 2 Days (8-9 September, 2016)  
Place: Department of Chemical Engineering, Jadavpur University
6. Name of the teacher: Dr. Ratna Dutta, Dr. Mehabub Rahaman, Dr. Saswata Bose  
Title of the workshop/conference/Symposium: Seminar on “Frontiers in chemical process industries”  
Type of Participation:Coordinator  
Duration: 1 Day (10th September,2016)  
Place: H.L. Roy Building, IChE Auditorium, Jadavpur University Campus
7. Name of the teacher: Dr. Ratna Dutta, Mrs. Sujata Sardar  
Title of the workshop/conference/Symposium: Workshop on “Industry input for Chemical Engineering curriculum revision”  
Type of Participation:Coordinator  
Duration: 1 Day (16<sup>th</sup> March,2017)  
Place: Department of Chemical Engineering, Jadavpur University.
8. Name of the teacher: Prof. K. Kargupta, Dr. Ratna Dutta  
Title of the workshop/conference/Symposium: Seminar on “Clean Coal for Green Steel”  
Type of Participation:Coordinator  
Duration: 1 Day (28th March,2016)  
Place: Department of Chemical Engineering, Jadavpur University.
9. Name of the teacher: Dr. Mehabub Rahaman, Dr. Saswata Bose  
Title of the workshop/conference/Symposium: TEQIP II sponsored five days workshop entitled “Recent Advancement in Energy Harvesting and Water Treatment Technologies”  
Type of Participation: Coordinator  
Duration : 13 - 17 June, 2016  
Place : Jadavpur University, Kolkata.
10. Name of the teacher: Dr. Mehabub Rahaman, Dr. Saswata Bose  
Title of the workshop/conference/Symposium: TEQIP II sponsored three days workshop entitled “Initiatives in Outcome Based Education and NBA Accreditation”  
Type of Participation: Coordinator  
Duration: 6 - 8 March, 2017  
Place: Hyatt Regency, Kolkata.

**3 D. Orientation Courses/Refresher Courses Attended: (2)**

1. Name of teacher: Dr. Ratna Dutta  
Name: 61st Orientation Programme at UGC- Human Resource development centre, Jadavpur University  
Place: Jadavpur University, Salt Lake Campus  
Duration: June 13-July 11, 2016.
2. Name of teacher: Dr. Ratna Dutta  
Name: Refresher course on “Disaster Management”  
Place: Department of Civil Engineering, Jadavpur University, Main Campus.  
Duration: October 20–November 11, 2016.

**4 A. Books/Monographs etc.Published [4]:**

1. Sen, P., Nath, A., Bhattacharjee, C. Packed-Bed Bioreactor and Its Application in Dairy, Food, and Beverage Industry (2016) Current Developments in Biotechnology and Bioengineering: Bioprocesses, Bioreactors and Controls, pp. 235-277. DOI: 10.1016/B978-0-444-63663-8.00009-4.
2. Nath, A., Kanjilal, T., Bhattacharjee, C. Application of Bioactive Composite Green Polymer for the Development of Artificial Organs (2016) New Polymeric Composite Materials, Materials Research Forum, pp.61-81 .DOI: <http://dx.doi.org/10.21741/9781945291098-2>.
3. Samanta Koruri Sharmishtha, Chowdhury Ranjana, Bhattacharya Pinaki. Potentiation of functional and antimicrobial activities through synergistic growth of probiotic *Pediococcus acidilactici* with natural prebiotics (garlic, basil) in “Microbes in the spotlight: recent progress in the understanding of beneficial and harmful microorganisms”, pp. 219-224. BrownWalker Press (ISBN-10: 1627346120 & ISBN-13: 9781627346122), 2016
4. Sengupta S, Das P, Mukhopadhyay A, Datta S, Microbial Biosorption and Improved/genetically modified Biosorbents for Toxic metal removal and thermodynamics, Handbook of Metal-Microbes Interactions and Bioremediation, Pp. 267-280, CRC Press, Print ISBN: 9781498762427

**4. B. Articles Published in Journals: (69)**

1. Madhumanti Mondal, Ashmita Ghosh, O N Tiwari, K Gayen, Papita Das, M K Mandal, Gopinath Halder, Influence of carbon sources and light intensity on biomass and lipid production of *Chlorella sorokiniana* BTA 9031 isolated from coalfield under various nutritional modes, Energy Conversion & Management, 145 (2017) 247–254.
2. Priya Banerjee, Shramana Roy Barman, Aniruddha Mukhopadhyay, Papita Das, Ultrasound assisted mixed azo dye adsorption by chitosan- graphene oxide nanocomposite, Chemical Engineering Research & Design, 117(2017)43-56.
3. Swapnila Roy, Papita Das, S Sengupta, S Manna, Calcium impregnated activated charcoal: Optimization and efficiency for the treatment of fluoride containing solution in batch and fixed bed reactor, Process Safety and Environment Protection. 109 (2017) 18–29 Elsevier Publication.
4. Sudipta Goswami, Priya Banerjee, Siddhartha Datta, Aniruddha Mukhopadhyay, Papita Das, Graphene oxide nanoplatelets synthesized with carbonized agro-waste biomass as green precursor



- and its application for the treatment of dye rich wastewater, *Process Safety and Environment Protection*. Elsevier Publication, 106(2017) 163-172.
5. Priya Banerjee, Shramana Roy Barman, Uttariya Roy, Dolanchapa Sikder, Papita Das, A Mukhopadhyay, Enhanced degradation of ternary dye effluent by developed bacterial consortium with RSM optimization, ANN modeling and toxicity evaluation, *Desalination & Water Treatment*, 72(2017)249-265.
  6. M Mukherjee, S Goswami, P Banerjee, S Sengupta, P Das, P K Banerjee, S Datta, Ultrasonic assisted Graphene oxide nanosheet for the removal of phenol containing solution, *Environment Technology & Innovation*, Elsevier publication, <http://dx.doi.org/10.1016/j.eti.2016.11.006>.
  7. Swapnila Roy, Papita Das, Subhalakshmi Sengupta, Treatability Study using Novel Activated Carbon prepared from Rice Husk: Column study, Optimization using Response Surface Methodology and Mathematical Modeling, *Process Safety and Environmental Protection*, Elsevier Publication, 105(2017)184-193.
  8. Pinaki Das, Papita Das, Graphene oxide for the treatment of ranitidine containing solution: Optimum Sorption Kinetics by Linear & Non Linear Methods and Simulation using Artificial Neural Network, *Process Safety and Environmental Protection*, Elsevier Publication, 102(2016), 589-595.
  9. Priya Banerjee, Pinaki Das, Aisha Jaman, Papita Das, Application of synthesized graphene oxide nanoplatelets for removal of ibuprofen in aquatic surface, *Process Safety and Environmental Protection*, Elsevier Publication, 101(2016) 45-53.
  10. Keka Sinha, Kaustav Aikat, Papita Das, Siddhartha Datta, Dyeing of Modified Cotton Fiber with Natural Terminalia arjuna Dye: Optimization of Dyeing Parameters Using Response Surface Methodology, *Environmental Progress & Sustainable Energy*, 35(3) 2016, 719- 728.
  11. Papita Das, P Das, S Datta, Continuous biosorption of Malachite Green by Ananuscosmosus (pineapple) leaf powder in a fixed bed reactor: experimental, breakthrough time and mathematical modeling, *Desalination & Water Treatment*, 57(53), 2016.
  12. Papita Das, Priya Banerjee, Aisha Jaman, Puspita Bhattacharya, Biodegradation of two Azo dyes using *Dietzia* sp. PD1: Process Optimization using Response Surface Methodology and Artificial Neural Network, *Desalination & Water Treatment* , 57(16) 2016, 7293-7301.
  13. Mantosh Satpathy, Papita Das, Assessment on the Modeling of the Kinetic Parameter for the removal of crystal violet dye using Ag-soil nanocomposite: Linear and non-linear analysis, *Desalination & Water Treatment*, 57(9), 2016, 4073-4080.
  14. Rishi Rathour, Papita Das, Kaustav Aikat, Microwave-assisted synthesis of graphene and its application for adsorptive removal of malachite green: thermodynamics, kinetics and isotherm study, *Desalination & Water Treatment*. 57(9), 2016, 7312-7321.
  15. Swapnila Roy, Subhalakshmi Sengupta, Papita Das, Thermodynamics and Kinetics study of Defluoridation using Ca-SiO<sub>2</sub>-TiO<sub>2</sub> as adsorbent :Column studies and Statistical approach, *Korean Journal of Chemical Engineering*, 34(1), 179-188 (2017).
  16. Swapnila Roy, Subhalakshmi Sengupta, Papita Das, Integral approach of adsorption and chemical treatment of fluoride containing wastewater: Batch and Optimization using RSM, *Journal of Environmental Chemical Engineering*, Elsevier Publication, 5(1) 2017 274-282.

17. C Mondal, A Das, SG Chatterjee (2016) "A time-lag model for biogas production by anaerobic digestion" *Journal of Renewable and Sustainable Energy* 8 (6), 06310DOI. 10.1063/1.4966160.
18. C Mondal, A Das, SG Chatterjee (2016) "Time-Lag Models for Continuous Stirred Tank and Plug Flow Digesters for Biogas Production" *Energy and Fuel*, ACS, DOI:10.1021/acs.energyfuels.6b01320.
19. C Mondal, Santra Swadesh, Sinha Archana (2016) "Effect of Harbal Plant(Garlic) Against Common Disease in Gold Fish, *Carassius Auratus* ( Linn.1758)" *IJLTEMAS*, Vol:5 Issue:III, P-42-44.
20. Ghoshal, P., Kim, M. C. & Cardoso, S. S., Reactive-convective dissolution in a porous medium: the storage of carbon dioxide in saline aquifers, *Physical Chemistry Chemical Physics*, published online 25 November 2016, DOI: 10.1039/c6cp06010b.
21. Guha, C., Saha, M., Chowdhury, S.D., Shekhar, N.K., Pal, A., Pal, M., Sen, R., Yb-Doped Pedestal Silica Fiber Through Vapor Phase Doping for Pulsed Laser Applications, *IEEE Photonics Technology Letters*, 28 (9), art. no. 7396930, pp. 1022-1025. (2016), DOI: 10.1109/LPT.2016.2524040.
22. Guha, C , Datta, P., Sarkhel, G.Morphological, Dynamic Mechanical, Creep and Weathering Behavior of Carbon Nanotube-Reinforced 50/50 ASA/Zn-Ionomer Blend, *Polymer - Plastics Technology and Engineering*, 55 (5), pp. 453-462. (2016), DOI: 10.1080/03602559.2015.1098691.
23. Piasy Pradhan, Sourojeet Chakraborty and Rajat Chakraborty , 2016, Optimization of infrared radiated fast and energy-efficient biodiesel production from waste mustard oil catalyzed by Amberlyst 15: Engine performance and Emission Quality assessments; *Fuel (Elsevier)*173 (2016) 60–68.
24. Rajat Chakraborty and Ritika Samanta, 2016, Concurrent Osmotic Dehydration and Vacuum Drying of Kiwi Fruit (*Actinidia Deliciosa*Cv.Hayward) Under Far Infrared Radiation: Process Optimization, Kinetics And Quality Assessment; *Journal of Food Process Engineering (Wiley Periodicals, Inc)* ; doi:10.1111/jfpe.12391.
25. Swapnendu Chatterjee, Sourav Barman and RajatChakraborty, 2016 , Far infrared radiated energy-proficient rapid one-pot green hydrolysis of waste watermelon peel: optimization and heterogeneous kinetics of glucose synthesis, *RSC Advances(Royal Society of Chemistry)* 6; 74278-74287.
26. Rajat Chakraborty, Punam Mukhopadhyay, Bipin Kumar, 2016, Optimal biodiesel-additive synthesis under infrared excitation using pork bone supported-Sb Catalyst: Engine performance and emission analyses, *Energy Conversion and Management (Elsevier)* 126; 32–41 .
27. R. Chakraborty, S. Chatterjee, P. Mukhopadhyay, S. Barman, 2016;Progresses in Waste Biomass derived Catalyst for Production of Biodiesel and Bioethanol: A Review; *Procedia Environmental Sciences (Elsevier)* 35 ;546 – 554.
28. Niladri Chakraborty, Rajat Chakraborty and Asit K. Saha, 2016 ; Dehydration of Kiwi Fruit (*Actinidiadeliciosa*) by Consecutive Osmotic Dehydration and Freeze-Drying; *Indian Journal of Science and Technology (SCOPUS; ISI)*, Vol 9(28), DOI: 10.17485/ ijt/ 2016 /v9i28/91839.
29. P Karan, P Mukhopadhyay, R Chakraborty,2017 Intensification of monostearin (phase change material) synthesis in infrared radiated rotating reactor: Optimization and heterogeneous kinetics; *Energy Conversion and Management (Elsevier)* 138, 577-586 .

30. P Mukhopadhyay, R Chakraborty, 2017; Infrared radiation promoted preparation of cost-effective lamb bone supported cobalt catalyst: Efficacy in semi-batch monoolein synthesis; *Catalysis Communications* (Elsevier); doi.10.1016/j.catcom.2017.02.020.
31. R Chakraborty, P Mondal, 2017; Effects of intermittent CO<sub>2</sub> convection under far infrared radiation on vacuum drying of pre osmodehydrated watermelon; *Journal of the Science of Food and Agriculture* (wiley onlinelibrary.com/jsfa; © 2017 Society of Chemical Industry); doi: 10.1002/jsfa.8246.
32. Ghosh, S., Chowdhury, R., Bhattacharya, P., Sustainability of cereal straws for the fermentative production of second generation biofuels: A review of the efficiency and economics of biochemical pretreatment processes. *Applied Energy*. 2017. Article in press.
33. Samanta, A.K., Bhattacharyya, R., Jose, S., Basu, G., Chowdhury, R., Fire retardant finish of jute fabric with nano zinc oxide. *Cellulose*. 2017. 24 (2), pp. 1143-1157.
34. Ghosh, S., Dairkee, U.K., Chowdhury, R., Bhattacharya, P., Hydrogen from food processing wastes via photofermentation using Purple Non-sulfur Bacteria (PNSB) – A review. *Energy Conversion and Management*. 2017. 141, pp. 299-314.
35. Chakraborty, C., Bhattacharya, P., Chowdhury, R. Bioremediation of lipid rich wastewater in an up-flow biofilm reactor leading to bio methane generation-Experiments and Mathematical Modelling. *Materials Today: Proceedings*. 2016. 3 (10), pp. 3434-3438.
36. Ghosh, S., Chowdhury, R., Bhattacharya, P., Mixed consortia in bioprocesses: role of microbial interactions. *Applied microbiology and Biotechnology*. 2016 DOI 10.1007/s00253-016-7448-1.
37. Sarkar, A., Chowdhury, R., Co-pyrolysis of paper waste and mustard press cake in a semi-batch pyrolyzer-optimization and bio-oil characterization. *International Journal of Green Energy*. 2016. 13 (4), pp. 373-382.
38. Ratna Dutta, Ujjaini Sarkar, Alakananda Mukherjee, Pseudo-kinetics of batch extraction of *Crotalaria juncea* (Sunn hemp) seed oil using 2-propanol, *Industrial Crops & Products*, April, 2016, 87 (9-13).
39. Ratna Dutta, Ujjaini Sarkar, Alakananda Mukherjee, Study of transient behaviour of modified soxhlet apparatus for extraction of a bio-fuel oil from *Crotalaria Juncea* seed, *International journal of green Energy*, April, 2017, DOI: 10.1080/15435075.2017.1318283.
40. Piyali Roy Choudhury, Priyankari Bhattacharya, Sourja Ghosh, Swachchha Majumdar, Sudeshna Saha, Ganesh C Sahoo. (2017). Removal of Cr (VI) by synthesized titania embedded dead yeast nanocomposite: optimization and modeling by response surface methodology. *Journal of Environmental Chemical Engineering*; Vol 5 (1): 214–221.
41. Birgen C, Preisig H, Wentzel A, Markussen S, Wittgens B, Sarkar U, Ganguly A, Saha S, Baksi S (2016) Anaerobic Bio-reactor Modeling. *Computer Aided Chemical Engineering*. Vol 38: 577-582.
42. Cansu Birgen, Heinz A. Preisig, Alexander Wentzel, Sidsel Markussen, Bernd Wittgens, Ujjaini Sarkar, Anindita Ganguly, Sudeshna Saha and Sibashish Baksi, Anaerobic Bio-reactor Modeling, *Computer Aided Chemical Engineering* 38, pp. 577-582, 2016.
43. Banerjee, D., Jana, S., Sarkar, U., Roy, D., Application of an Alkali Functionalized Material for Treating Pharmaceutical Wastewater Containing Chlorhexidine Gluconate and Cetrimide, *Clean - Soil, Air, Water* 44(2), pp. 169-179, 2016.

44. Sadhukhan, S., Sarkar, U. , Production of Biodiesel from *Crotalaria juncea* (Sunn-Hemp) Oil Using Catalytic Trans-Esterification: Process Optimisation Using a Factorial and Box- Behnken Design, *Waste and Biomass Valorization* 7(2), pp. 343-355, 2016.
45. Ghosh, D., Sarkar, U., Analysis of the photochemical production of ozone using Tropospheric Ultraviolet-Visible (TUV) Radiation Model in an Asian megacity, *Air Quality, Atmosphere and Health* 9(4), pp. 367-377, 2016.
46. Sadhukhan, S., Villa, R., Sarkar, U., Microbial production of succinic acid using crude and purified glycerol from a *Crotalaria juncea* based biorefinery, *Biotechnology Reports* 10, pp. 84-93, 2016.
47. Sadhukhan, S., Sarkar, U. , Production of purified glycerol using sequential desalination and extraction of crude glycerol obtained during trans-esterification of *Crotalaria juncea* oil, *Energy Conversion and Management* 118, pp. 450-458, 2016.
48. Ghosh, D., Lal, S., Sarkar, U., Variability of tropospheric columnar NO<sub>2</sub> and SO<sub>2</sub> over eastern Indo-Gangetic Plain and impact of meteorology, *Air Quality, Atmosphere and Health* pp. 1-10, 2016.
49. Gopinathan, R., Bhowal, A., Garlapati, C., Thermodynamic study of some basic dyes adsorption from aqueous solutions on activated carbon and new correlations, *Journal of Chemical Thermodynamics* 107 (2017) 182-188.
50. A. Das, A. Bhowal, S. Datta, Biomass characterization and adsorption mechanism of Cu(II) biosorption onto fish (*CatlaCatla*) scales *International Journal of Environmental Engineering* 8(2016) 81-94.
51. C Kulsi, A Ghosh, A Mondal, K Kargupta, S Ganguly, D Banerjee, “Enhanced photo catalytic performance of nickel doped bismuth selenide under visible light irradiation” *Materials Research Express*, 4, 305902, 2017.
52. C Kulsi, A Ghosh, A Mondal, K Kargupta, S Ganguly, D Banerjee, “Remarkable photo-catalytic degradation of malachite green by nickel doped bismuth selenide under visible light irradiation” *Applied Surface Science*, 392, 540-548, 2017.
53. M Mitra, K Kargupta, S Ganguly, S Goswami, D Banerjee, Facile synthesis and thermoelectric properties of aluminum doped zinc oxide/polyaniline (AZO/PANI) hybrid” *Synthetic Metals*, 228, 25-31, 2017.
54. C Kulsi, P Dhara, M Mitra, K Kargupta, S Ganguly, D Banerjee, “Effect of solvent on nanostructure and thermoelectric properties of bismuth, *Indian Journal of Physics*, 90, 557-562, 2016.
55. S. Saha, A. Basu, D. Das, S. Ganguly, D. Banerjee, K. Kargupta, “Novel graphene supported Co rich connected core (Pt)-shell (Co) nano-alloy catalyst for improved hydrogen generation and electro-oxidation” *International Journal of Hydrogen Energy*, 41, 18451-18464, 2016.
56. T Paul, D Banerjee, K Kargupta, Data for phase angle shift with frequency, *Data in brief*, 7, 1389-1392, 2016.
57. Chowdhury, A., Kunjiappan, S., Bhattacharjee, C., Somasundaram, B., Panneerselvam, T., Document Biogenic synthesis of *Marsilea quadrifolia* gold nanoparticles: a study of improved glucose utilization efficiency on 3T3-L1 adipocytes, *In Vitro Cellular and Developmental Biology – Anima*, 53 (6), 483-493, 2017.

58. Bhattacharjee, S., Dutta, T., Bhattacharjee, C., Removal of arsenic from contaminated water using micellar-enhanced-ultrafiltration, *Indian Journal of Environmental Protection*, 37 (1), 4-12, 2017.
59. Kanjilal, T., Bhattacharjee, C., Datta, S., Utilization of *S. aureus* strain 502A in biodegradation of insecticide acetamiprid from wetland wastewater, *Desalination and Water Treatment*, 57 (28), 13190-13206, 2016.
60. Bhattacharjee, S., Dutta, T., Bhattacharjee, C., Removal of arsenic from contaminated water by coagulation followed by polyelectrolyte enhanced ultrafiltration, *Desalination and Water Treatment*, 57 (21), 9756-9764, 2016.
61. Das, B., Sarkar, S., Sarkar, A., Bhattacharjee, S., Bhattacharjee, C., Recovery of whey proteins and lactose from dairy waste: A step towards green waste management, *Process Safety and Environmental Protection*, 101, 27-33, 2016.
62. Sen, P., Bhattacharjee, C., Bhattacharya, P., Experimental studies and two-dimensional modelling of a packed bed bioreactor used for production of galacto-oligosaccharides (GOS) from milk whey, *Bioprocess and Biosystems Engineering*, 39 (3), 361-380, 2016.
63. Das, D., Chakraborty, S., Bhattacharjee, C., Chowdhury, R., Biosorption of lead ions (Pb<sup>2+</sup>) from simulated wastewater using residual biomass of microalgae, *Desalination and Water Treatment*, 57 (10), 4576-4586, 2016.
64. Anupam, K., Dutta, S., Bhattacharjee, C., Datta, S., Artificial neural network modelling for removal of chromium (VI) from wastewater using physisorption onto powdered activated carbon, *Desalination and Water Treatment*, 57 (8), 3632-3641, 2016.
65. Chakraborty, S., Rusli, H., Nath, A., Sikder, J., Bhattacharjee, C., Curcio, S., Drioli, E., Immobilized biocatalytic process development and potential application in membrane separation: A review, *Critical Reviews in Biotechnology*, 36 (1), 43-48, 2016.
66. Das, R., Samanta, H.S., Bhattacharjee, C., Hydrogel: Polymeric smart material in drug delivery, *Materials Science Forum*, 875, 45-62, 2016.
67. Nath, A., Chowdhury, R., Bhattacharjee, C., Maitra, M., Production of  $\beta$ -galactosidase in a batch bioreactor using whey through microbial route – Characterization of isolate and reactor model, *Periodica Polytechnica: Chemical Engineering*, 60 (4), 298-312, 2016.
68. Bose, S., Das, A., Basu, S. and Drzal, L. T. (2017), Covalent functionalization of graphene using polyacryloyl chloride and performance of functionalized graphene-epoxy nanocomposite. *Polym. Compos.* doi:10.1002/pc.24318.
69. Bose, S., Basu, S., Das, A., Drzal L. T. and Rahman, M. (2017), Fabrication of a Sulfonated Aramid-Graphene Nanoplatelet Composite Paper and its Performance as a Supercapacitor Electrode. *J. Appl. Polym. Sci.* doi: 10.1002/app.20170010.

**5. Collaborative Programmes:**

Number of International Collaboration: (4)

1. Investigators: Dr. Chiranjib Bhattacharjee, Prof. Gisle Øye  
Project Title: Research and education within advanced hybrid separation techniques in industrial wastewater treatment

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Funding Agency: UGC Indo-Norwegian Cooperation Programme 2014(INCP)

Amount: 66 lakhs,

Duration: 2015-18.

2. Investigators: Dr. Ujjaini Sarkar (PI) and Dr. Sudeshna Saha (Co-PI)  
Project Title: EcoLodge - Efficient production of Butyl-Butyrate from Lignocellulose derived Sugars  
Funding Agency: DST (India)-RCN (Norway),  
Amount: Rs 29.54 Lakhs  
Duration: 2015-2018.
3. Investigator: Dr M Rahaman  
Project Title: Hywater - Treatment of contaminated drinking water using a hybrid low-cost process.  
Funding Agency: DBT funded Inno Indigo,  
Amount:35.068 lac (JU share)  
Duration:2015-2018.
4. Investigators: Dr. R. Chowdhury, Dr. R. Chakraborty  
Project Title: CONVER-B: Development of efficient biomass conversion routes for biofuel production and utilisation  
Approving Agency: INNO INDIGO

**6. Major Achievements:**

Total number of articles published in peer- reviewed journal:69

Number of major research projects(new & ongoing): (National: ; International: ; others:)

19 (National)+5(International)=24 (6 new+18 ongoing)

Number of Invited Lectures Delivered/ Session Chaired:10

Number of Seminar/Workshop/Conference/Symposium Attended: 22

Number of Seminar/Workshop/Conference/Symposium Organized:10

Number of Books/Monographs etc. published:4

Number of International Collaboration: 4



**CIVIL ENGINEERING**

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**1. A. Courses Offered:**

<b>Name of the Course</b>	<b>Duration of Course</b>	<b>No of Students Enrolled</b>
B.E. in Civil Engg.	4 Years	134
B.E. (EVENING) in Civil Engg.	5 Years	045
M.E. in Civil Engg.	2 Years	025

**B. Number of Faculty Members:** 21

**2. A. Area of Research Activities:**

1. Deep excavation
2. Strain rate effect on behavior of soil
3. Liquefaction study
4. Ground improvement
5. Seepage below dam base with sheet pile
6. Pile under lateral load and uplift
7. Behavior of plate anchors under static and dynamic load
8. Hazard zonation
9. River dynamics
10. Arsenic removal from ground water
11. Management of Air pollution
12. Remote Sensing , GIS & Geostatistics
13. Traffic Planning
14. Structural acoustics, ASAC
15. Laminated Composites,
16. High Performance Concrete, Bacterial Concrete

**3. A. Invited Lectures Delivered/Sessions Chaired:(Name of the Teacher, Type of Participants, Name of the Seminar / Conference etc. Place, Duration)**

**PROFESSOR PRITAM AITCH**

- Aitch, P; Lecture on “Role of Society Towards Safer Roads” at 64TH Orientation Course for College & University Teachers; HRDC, JU; 23RD February 2017
- Aitch, P; Lecture on “Road Traffic Hazards & Role of Society” at 63RD Orientation Course for College & University Teachers; HRDC, JU; 2ND December 2016

### **Annual Report 2016-17**

- Aitch, P; Lecture on “Remote Sensing & GIS – The Fundamental Tools of Geoinformatics” at TEQIP sponsored Workshop on Numerical Methods & Application of Software in Engineering; Heritage Institute of Technology; 14TH September 2016
- Aitch, P; Lecture on “Improvement of Connectivity in Sundarban Areas with Special Reference to Construction of Jetty, Bituminous & Concrete Roads” to Engineers of Sundarban Affairs Department at One-Day Training cum workshop programme on New Ideas for Improving Connectivity in Sundarban areas, Eco Tourism Centre, New Town Kolkata, 6TH May, 2016

#### **PROFESSOR ANUPAM DEBSARKAR**

- Debsarkar A, Delivered invited lecture on “Arsenic Remediation of Groundwater” as a Resource Person during 61st Orientation Programme at UGC-HRDC, Salt Lake Campus, Jadavpur University on 20th June, 2016.
- Debsarkar A, Delivered invited lecture on “NSS & its Objectives” as a Resource Person during 61st Orientation Programme at UGC-HRDC, Salt Lake Campus, Jadavpur University on 20th June, 2016.
- Debsarkar A, Delivered invited lecture on “Arsenic Remediation of Groundwater” as a Resource Person during 62nd Orientation Programme at UGC-HRDC, Salt Lake Campus, Jadavpur University on 5th September, 2016.
- Debsarkar A, Delivered invited lecture on “NSS & its Objectives” as a Resource Person during 62nd Orientation Programme at UGC-HRDC, Salt Lake Campus, Jadavpur University on 5th September, 2016.
- Debsarkar A, Delivered invited lecture on “Defluoridation of Groundwater” at Ellite Institute of Engineering & Management, on 28th October, 2016.
- Debsarkar A, Delivered lecture in the three-week long UGC-Sponsored refresher course on “Disaster Management” held at the Department of Civil Engineering, Jadavpur University on the topic “Environmental Impact Assessment in India-An Appraisal” on 4th November, 2016.
- Debsarkar A, Delivered invited lecture on “Arsenic Remediation of Groundwater” as a Resource Person during 63rd Orientation Programme at UGC-HRDC, Salt Lake Campus, Jadavpur University on 21st November, 2016.
- Debsarkar A, Delivered invited lecture on “NSS & its Objectives” as a Resource Person during 63rd Orientation Programme at UGC-HRDC, Salt Lake Campus, Jadavpur University on 21st November, 2016.
- Debsarkar A, Delivered lecture in the three-week long UGC-Sponsored refresher course on “Built Environment & Sustainable Technologies (BEST)” held at the Department of Architecture, Jadavpur University on the topic “Air Pollution & Human Health” on 13th January, 2017.
- Debsarkar A, Delivered lecture in the three-week long UGC-Sponsored refresher course on “Built Environment & Sustainable Technologies (BEST)” held at the Department of Architecture, Jadavpur University on the topic “Air Quality Management” on 14th January, 2017.
- Debsarkar A, Delivered lecture in the three-week long UGC-Sponsored refresher course on ‘Current Environmental Issues: Impact, Measurement and Mitigation’, organized by ‘School of Environmental Studies, Jadavpur University’ at the Seminar Room of School of Energy Studies, Jadavpur University on the topic “Defluoridation of Drinking Water” on 19th January, 2017.

### **Annual Report 2016-17**

- Debsarkar A, Delivered lecture in the three-week long UGC-Sponsored refresher course on 'Current Environmental Issues: Impact, Measurement and Mitigation', organized by 'School of Environmental Studies, Jadavpur University' at the Seminar Room of School of Energy Studies, Jadavpur University on the topic "Hazardous Waste Management-from Indian Perspective" on 20th January, 2017.
- Debsarkar A, Delivered invited lecture on "Arsenic Remediation of Groundwater" as a Resource Person during 64th Orientation Programme at UGC-HRDC, Salt Lake Campus, Jadavpur University on 14th February, 2017.
- Debsarkar A, Delivered invited lecture on "NSS & its Objectives" as a Resource Person during 64th Orientation Programme at UGC-HRDC, Salt Lake Campus, Jadavpur University on 14th February, 2017.

#### **PROFESSOR ARUP GUHA NIYOGI**

- Delivered Lecture at ATI on 16.05.17 Duration 3hr on "Structural Mitigation Measures to reduce chances of Landslide & Loss due to earthquake.
- Delivered Lecture at ATI on 03.05.17 Duration 1-30 hr on " Safety in Built form: Mainstreaming DRR in Housing & Infrastructure.
- Delivered Lecture at ATI on 10.1.17 Duration 3 hr on " Safety in Built form: Mainstreaming DRR in Housing & Infrastructure.
- Delivered Lecture at ATI on 07.12.16: Venue: ATI, Duration 1-30hrs on Earthquake resistance of buildings.
- October 20, 2016 (Thursday) Refresher Course on "Disaster Management" 15:30 to 17:00 Hrs. on 'Impact of Extreme Events on Structures' Venue: Civil Engineering Department, Duration 1-30hrs

#### **PROFESSOR TUMPA HAZRA**

- Attending as the chair of a technical session in 6th International Conference on Solid Waste Management & Exhibition on Municipal Services, Clean Technology & Machineries held on November 24-26, 2016 at Jadavpur University, Kolkata, India.
- Attending as the CO-chair of a technical session in 6th International Conference on Solid Waste Management & Exhibition on Municipal Services, Clean Technology & Machineries held on November 24-26, 2016 at Jadavpur University, Kolkata, India.

### **3. B. Seminar/Workshop/Conference/Symposium Attended: (Name of the Teacher, Name of the Paper Presented, Name of the Seminar, Place, Duration)**

#### **PROFESSOR PRITAM AITCH**

- Chaudhuri, P, Aitch, P & Dutta, A; Urbanisation Associated Groundwater Table Depletion – A Case Study at the Proceedings of Regional Workshop under JalKranti Abhiyan 2016-17 on Groundwater Resource Management Issues In View Of Climatic Change In West Bengal, Sikkim & Andaman & Nicobar Islands on March 21<sup>st</sup>, 2017 at Vidyasagar Auditorium, Barasat Municipality.
- Kar, S, Ghosh, I, Ghosh, A, Aitch, P & Bhandari, G; The Study of the Impact of Mass Bathing on Water Quality of River Hooghly during the Festival of Mahalaya, West Bengal, India at the International Seminar on Recent Trend in Microbiology on January 14<sup>th</sup>, 2017 at the Department of Microbiology, Ramkrishna Mission Vidyamandir, Belur Math, West Bengal, India
- Kar, S, Ghosh, I, Ghosh, A, Aitch, P & Bhandari, G; The Study of the Impact of Wastewater from Outfall in River Ganga, West Bengal on the Growth and Morphological Parameters of *Spinacia Oleracea*

at the 19<sup>th</sup> International Conference on Pollution and Pollution Control Technologies on January 8<sup>th</sup>-9<sup>th</sup>, 2017 at Singapore.

**PROFESSOR SIBAPRIYA MUKHERJEE**

- S.Tung, G. Bhandari, S.P. Mukherjee, A. Rotaru, V. Boboc; Stability analysis of the earth embankment subjected to natural cyclic processes, EBUILT conference, ROMANIA, 2016.
- S.Tung, S.P. Mukherjee, Pullout capacity of pile groups in sand, 6<sup>th</sup> conference on Deep Foundation Technologies For Infrastructure Development, India, 2016.
- S K Biswas, S.P.Mukherjee, M. De, Determination of coefficient of modulus of sub grade reaction for free head short pile, 6<sup>th</sup> conference on Deep Foundation Technologies For Infrastructure Development, India, 2016.
- S.Tung, S.P. Mukherjee, G. Bhandari; Effect of seepage cutoff on some important aspects of earthen dam under rise up condition by numerical modelling, Geotechnics For Infrastructure Development - 2016, Kolkata, 2016.
- S.Tung, S.P. Mukherjee, G; stability of earthen embankment with clay core under tidal fluctuation, Indian-Geotechnical Conference, Chennai, 2016.
- S.Tung, S.P. Mukherjee, S. Banerjee; Pull out capacity of inclined strip anchor by numerical modelling, Indian-Geotechnical Conference, Guwahati, 2017. (Abstract accepted)

**PROFESSOR SAROJ MANDAL**

- Mandal Saroj; Antimicrobial efficiency of nano silver - silica modified geopolymer mortar, 8th International conference on Concrete under severe Conditions , Environment and loading (CONSEC 2016), Vol 2-46-53, 2016.

**PROFESSOR ANUPAM DEBSARKAR**

- I. Mookherjee, A. Roy, A. Dutta, A. Debsarkar, P. Aitch, Sustainable Management of Arsenic Bearing Sludge, presented in 6th International Conference on Solid Waste Management, 6th IconSWM 2016, Jadavpur University, Kolkata, India, November 24 - 26, 2016.
- Dipsikha Dasgupta, Anupam Debsarkar, Amitava Gangopadhyay and Debasish Chatterjee, Assessment of Ecological and Health Risk associated with Informal Handling of E-waste: A Case Study of Sangrampur, South 24 Parganas, presented in 6th International Conference on Solid Waste Management, 6th IconSWM 2016, Jadavpur University, Kolkata, India, November 24 - 26, 2016.
- S.K. Maiti, T. Hazra and A. Debsarkar, Electrocoagulation Process for Landfill Leachate Treatment: A Review, presented in 6th International Conference on Solid Waste Management, 6th IconSWM 2016, Jadavpur University, Kolkata, India, November 24 - 26, 2016.
- Malancha Roy, Joydeep Mukherjee and Anupam Debsarkar, Conversion of abattoir wastes and its subsequent use as organic fertilizer: A Sustainable approach towards waste management, presented in 6th International Conference on Solid Waste Management, 6th IconSWM 2016, Jadavpur University, Kolkata, India, November 24 - 26, 2016.

**PROFESSOR SREYASHI DAS**

- ONE DAY WORKSHOP ON “DISASTER PREPAREDNESS”, DEPARTMENT OF CIVIL ENGINEERING, JADAVPUR UNIVERSITY ON 29TH AUGUST, 2016.

**PROFESSOR TUMPA HAZRA**

- One day workshop on “Disaster Preparedness”, department of Civil Engineering, Jadavpur University on 29th August, 2016.

- Attending as the speaker of the Paper ‘S. Alam, K. A. Kolekar, T. Hazra, S.N. Chakrabarty, Selection of Suitable Landfill Site for Municipal Solid Waste Disposal: A Fuzzy Logic Approach’ in 6th International Conference on Solid Waste Management & Exhibition on Municipal Services, Clean Technology & Machineries held on November 24-26, 2016 at Jadavpur University, Kolkata, India.

**3.C. Seminar/Workshop/Conference/Symposium Organized: (Name of the Teacher, Name of the Paper Presented, if any, Name of the Seminar, Place, Duration)**

**PROFESSOR PRITAM AITCH**

- **Aitch, P & Bhandari, G; One Day Workshop on Disaster Preparedness on August 29, 2016** at the **Dr K P Basu Memorial Auditorium, Jadavpur University** under the auspices of **TEQIP Phase-II, JU;**  
**Presentation on “Urban Traffic Disaster”**
- **Aitch, P; One-Day Workshop Aiming at CURRICULUM REVISION on March 10, 2017** at the **Department of Civil Engineering, Jadavpur University** under the auspices of **TEQIP Phase – II, JU.**

**PROFESSOR TUMPA HAZRA**

- Hazra, T., Debsarkar, A., Dutta, A. One-day **Symposium on “Smart India: Environmental Sustainability”** funded by **Technical Education Quality Improvement Programme (TEQIP) Phase-II** on **20<sup>th</sup> August, 2016** at the **Seminar Room-II** of the Civil Engineering Department, Jadavpur University, Kolkata.

**3. D. Orientation Courses/ Refresher Courses Attended: (Name of the Teachers, Title of the Course, Duration, Place)**

**PROFESSOR SREYASHI DAS**

“BUILT ENVIRONMENT AND SUSTAINABLE TECHNOLOGIES”, 2<sup>ND</sup> JANUARY, 2017 TO 21<sup>ST</sup> JANUARY, 2017, JADAVPUR UNIVERSITY, ARCHITECTURE DEPARTMENT

**3. E. Orientation Courses/Refresher Courses Organized: (Name of the Teachers, Title of the Course, if any, Duration, Place)**

**PROFESSOR PRITAM AITCH**

- **Aitch, P, Bhandari, G & Hazra, T; Interdisciplinary Refresher Course on Disaster Management** from **October 20 to November 11, 2016** at the **Department of Civil Engineering, Jadavpur University, Kolkata** under the auspices of **UGC-HRDC, JU.**  
**Presentation on “Awareness on Traffic Hazards”, 21<sup>ST</sup> October 2016**

**PROFESSOR ANUPAM DEBSARKAR**

- **Debsarkar A, Organized a short term course on “Engineering & Materials for Sustainable Development”** as **Course Coordinator** under the aegis of **“Global Initiative of Academic Network (GIAN)”** programme of **MHRD, Government of India** from **27.01.2017 to 02.02.2017** at the seminar room of **Department of Electrical Engineering, Jadavpur University.**



**PROFESSOR TUMPA HAZRA**

**Aitch, P**, Bhandari, G & Hazra, T; University Grants Commission (UGC) sponsored Interdisciplinary Refresher Course on the subject “Disaster Management” from 20<sup>th</sup> October, 2016 to 11<sup>th</sup> November, 2016 held in Jadavpur University, Kolkata-700032. Presentation on” POST DISASTER IMPACT ASSESSMENT AND MANAGEMENT STRATEGIES”

**4. A. Books/Monographs etc. Published: (Name of the Teacher, Name of the Book, Name of the Publisher)**

**PROFESSOR TUMPA HAZRA**

1. Goel, S., Ranjan, V.P., Bardhan, B, Hazra, T., 2017. Forecasting Solid Waste Generation Rates, Modelling Trends in Solid and Hazardous Waste Management, Edited by Sengupta, D., Agrahari, S., published by Springer
2. Hazra, T., Goel, S., Maitra, B. 2017. Development and Application of a Multicriteria Decision Making (MCDM) Tool for Solid Waste Management: Kolkata as a Case Study, Edited by Goel, S., published by Capital Publishing Company, New Delhi.

**4. B. Articles Published in Journals : (Name of the Teacher, Name of the Articles, Name of the Journal, Date of Publication, Volume) (Including National/International & Peer-reviewed Journals)**

**PROFESSOR PRITAM AITCH**

- Kar, S, Ghosh, I, Mondal, S, Chakraborty, K, Bhattacharjee, T, Ghosh, A, **Aitch, P** & Bhandari, G; **Effect of Domestic Effluent in River Ganga, West Bengal on the Morphological and Biochemical Parameters of Mung bean (Vignaradiata), Life Sciences International Research Journal Vol 3 Issue 2 (ISSN 2347-8691 & ISBN 978-93-84124-90-8), pp 94-97.**
- Kar, S, Ghosh, A, **Aitch, P** & Bhandari, G; **A preliminary survey of Indian River in view of social consciousness and citizen’s attitude towards its pollution, Indian Groundwater (ISSN 2347-8063), Vol VII, January 2017, pp 76-84.**

**PROFESSOR SIBAPRIYA MUKHERJEE**

- Sengupta Ashimanta, Mukherjee Sibapriya and Ghosh Ambarish; Bearing ratio of clayey subgrade underlying compacted Flyash layer and Geotextile, International Journal of Engineering Research and Science & Technology (IJERST); Vol. 5, No. 3, 2016.
- S. Tung, G. Bhandari, S.P. Mukherjee; Behavior of sheet pile as seepage cut off below earthen dam, International Journal of Geotechnical Engineering, Taylor and Francis Group; Vol 10, issue 2, pp- 162-173, 2016.
- S. Tung, G. Bhandari, S.P. Mukherjee, A. Rotaru, V. Boboc; Stability analysis of the earth embankment subjected to natural cyclic processes, Advanced Engineering Forum, Vol. 21, Pp 389-396, 2017

**PROFESSOR DIPANKAR CHAKRAVORTY**

- D. Chatterjee, S Das Neogi, D. Chakravorty; Response of simply supported cross ply graphite-epoxy cylindrical shell under low velocity impact, International Journal of Multidisciplinary Engineering Science and Technology, In press.
- K. Bakshi, D. Chakravorty; Geometrically Nonlinear First Ply Failure Study of Composite Conoidal Shells, Procedia Engineering, 173(2017) pp. 1619-1626.



- S. Das Neogi, D. Chakravorty, A. Karmakar; Finite Element Analysis of Laminated Composite Skewed Hypar Shell Roof Under Oblique Impact, *Procedia Engineering*, 173(2017) pp. 314-322.
- A. Ghosh, D. Chakravorty; Failure analysis of civil engineering composite shell roofs, *Procedia Engineering*, 173(2017) pp. 1642-1649.

**PROFESSOR SAROJ MANDAL**

- Mandal Saroj; Bacterial Concrete : An Innovative Material, *AMBUJA TECHNICAL JOURNAL*, Vol 3-3-9, 2017.
- Mandal Saroj; Structural performance of nano-silica modified fly-ash based geopolymer concrete, *Construction and Building Materials ( Elsevier)*, Dibyendu Adak, Manas Sarkar, Saroj Mandal, Volume 135-430-439, 2017.

**PROFESSOR ANUPAM DEBSARKAR**

- S. De, S. K. Maiti, T. Hazra, A. Debsarkar, A. Dutta; Leachate characterization and identification of dominant pollutants using leachate pollution index for an uncontrolled landfill site, *Global Journal of Environmental Science and Management*, Vol-2(2): pp-177-186, April, 2016
- Dipsikha Dasgupta, Anupam Debsarkar, Tumpa Hazra, B.K. Bala, Amitava Gangopadhyay and Debashis Chatterjee, Environment, Scenario of future e-waste generation and recycle-reuse-landfill-based disposal pattern in India: a system dynamics approach, *Development and Sustainability (Springer Publication)*, Vol-18, No.-3, pp-1-15, 26th May-2016, DOI 10.1007/s10668-016-9815-6.

**PROFESSOR SREYASHI DAS**

- Sreyashi Das, Arup Guha Niyogi; Vibro-Acoustic Analysis inside Cross Ply Laminated Composite Cavity, *Procedia Engineering*, Elsevier, ISBN: 978-1-5108-2460-7, Volume 144, 2016, Pages 1389-1396

**PROFESSOR ARUP GUHA NIYOGI**

- Atanu Sahu, Partha Bhattacharya, Arup Guha Niyogi and Michael Rose, June 2017, *J. Acoust. Soc. Am.* A mobility based vibroacoustic energy transmission simulation into an enclosure
- Atanu Sahu, Arup Guha, Niyogi, Michael Rose and Partha Bhattacharya, (May 2017) A Two-Stage Model for Energy Transmission and Radiation Analysis of Laminated Composite Double-Leaf Structures. *J. Vib. Acoust ASME*, 139(4).

**PROFESSOR TUMPA HAZRA**

1. Dasgupta, D., Debsarkar, A., Hazra, T., Bala, B.K., Gangopadhyay, A., Chatterjee, D., 2016. Scenario of future e-waste generation and recycle-reuse-landfill-based disposal pattern in India: a system dynamics approach, *Environment, Development and Sustainability*,
2. De, S., Maiti, S., Hazra, T., Debsarkar, A., Dutta, A., 2016. Leachate characterization and identification of dominant pollutants using leachate pollution index for an uncontrolled landfill site, *Global Journal of Environmental Science and Management*, 2(2), 177-186. (Has SCI citation and impact factor 0.343 in 2015)
3. Maiti, S., De, S., Hazra, T., Debsarkar, A., Dutta, A., 2016. Characterization of Leachate and its Impact on Surface and Groundwater Quality of a closed Dumpsite - A Case Study at Dhapa, Kolkata, India, *Procedia Environmental Sciences* 35, 391 – 399.
4. Kolekar, K.A., Hazra, T., Chakrabarty, S.N., 2016. A Review on Prediction of Municipal Solid Waste Generation Models, *Procedia Environmental Sciences* 35, 238 – 244.

## COMPUTER SCIENCE & ENGINEERING

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H.O.D : Professor Ujjwal Maulik  
E-mail : hod@cse.jdvu.ac.in  
hodcse@jadavpuruniversity.in

### 1. A. Courses Offered:

Sl No.	Name of the Course	Duration of the Course	No. of Students
1	BCSE	4 years	72 per year
2	MCA	3 years	44 per year
3	MCSE	2 years	36 per year
4	MTCT	3 years	34 per year

### 1. B. Number of Faculty Members:

Professor – 21  
Associate Professor - 3  
Assistant Professor - 8

### 2. A. Area of Research Activities (Broad Areas):

Computational Intelligence, Bioinformatics, Pattern Recognition, Video and Image Processing, Face Recognition, Medical Image Analysis, Parallel Algorithms, Cloud Computing, Internet of Things, Soft computing, Data Mining, Neural networks, Wireless and Mobile Computing, Wireless Sensor Networks, VLSI, Quantum computing, Natural Language and Speech Processing, Text Analytics, Machine Learning, Emotion and Sentiment Analysis, Artificial Intelligence, Security, Distributed Computing, Social Network Analysis.

### 2. B. Sponsored Projects Carried Out/Ongoing (2016-17):

#### Debesh Das

“Use of emerging technology to synthesize Boolean functions”, Funded by: TEQIP II, Grant Sanctioned: Rs. 75000, Duration: August, 16 to March 17

#### Ujjwal Maulik

“A big data perspective for energy management in smart grids and dwellings”, under DST-INRIA-CNRS targeted Indo-French Joint project, Funding agency Department of Science and Technology, Govt. of India, 2015-2018

#### Sivaji Bandyopadhyay

CLIA Phase –II , Developing Dependency Tree Banks for Indian Languages

**PI: Nandini Mukherjee, Co-PI: Sarmistha Neogy**

Project Title: Remote Health: A Framework for Health-care Services using Mobile and Sensor-cloud Technologies (A collaborative project of **six** institutions)

Lead PI (for all institutions) - **Prof. Nandini Mukherjee**

Funded by Information Technology Research Academy, Media Lab Asia, Ministry of Electronics and

Information Technology, (MeitY), Govt. of India, Fund allotted for Jadavpur University - 193.77 lakhs (Fund received so far - 156.63 lakhs)

### **Sanjoy Kumar Saha**

- Phase Transformation and Product Characterization” COE Programme
- Two axis director Tracking Mechanism, ITR Chandipur
- Design and Development of Quadruped with Electro-hydraulic Power System for Realization of An Autonomus Robot, DRDO

### **Nirmalya Chowdhury**

“Development of some efficient technique for applications in the field of Business Analytics and Business Intelligence” in Mobile and Innovative Computing (MIC) Programme under UGC UPE Phase II

### **Diganta Saha**

- Mobile and Innovative Computing Programme, “Cache Memory Management in Mobile Environment”, UGC funded “*University with Potential for Excellence - Phase II*” scheme of Jadavpur University, Amount 10.87 Lakh, July 2015 – March 2018
- An Ontology Based Text Data Mining, Funding agency: Department of Science and Technology, Promotion of University Research and Scientific Excellence (DST, PURSE Phase-II), Govt. of India, 2014-2017, Amount: 9 Lakh

### **Chitrita Chaudhuri**

Mobile and Innovative Computing Programme, “Application Of Case Based Reasoning In Signature Authentication To Prevent Fraudulent Transaction”, UGC funded “*University with Potential for Excellence - Phase II*” scheme of Jadavpur University, July 2015 – March 2018.

**PI: Sarbani Roy, Co-PI: Chandreyee Chowdhury, Sarmistha Neogy, Nandini Mukherjee**

Environmental Monitoring: Testbed of Mixed Wireless Sensor Networks

Funding agency: Department of Science and Technology, Promotion of University Research and Scientific Excellence (DST, PURSE Phase-II), Govt. of India, Period: 4 years w.e.f. 2015

### **Sarbani Roy**

Performance based Resource Management and Load balancing in Cloud Environment, Funding agency: Mobile Computing and Innovative Applications under University with Potential for Excellence (UPE) - Phase II, Jadavpur University, 2012-2015

### **Kamal Sarkar**

- Design and Development of an Automatic Image Tagging System, DST Purse -II
- Design and Development of a System for Querying, clustering and Summarization for Bengali, Funding Agency-SERB under DST, Sanctioned Amount: 31,71,600/-, Duration: 4 years (2013 to 2017)

**PI: Mita Nasipuri, Co-PI: Mahantapas Kundu, Debotosh Bhattacharjee, Subhadip Basu, Nibaran Das, Ram Sarkar**

Multispectral Image Analysis for Various Security and Medical Applications, PURSE-II

**PI: Subhadip Basu, Co-PI: Mita Nasipuri, Mahantapas Kundu, Debotosh Bhattacharjee, Nibaran Das, Ram Sarkar**

Design of a Multimodal Biometric System for Various Security and Forensic applications, UPE-II

### **Subhadip Basu**

Segmentation of the carotid vasculature in human CT angiography, PI, DST-FASTTRACK

**PI: Debotosh Bhattacharjee, Co-PI: Mita Nasipuri**

- “Development of 3D Face Recognition Techniques Based on Range Images,” DEITY, MCIT, Govt. of India. Fund: INR 66.21 Lakh
- “Design and Development of Techniques for pain management and Breast Cancer detection using infrared imaging,” DBT, Govt. of India, Fund: INR 13.55 Lakh
- “Telemedicine Compatible Computerized Hemocytometer Analyzer for Dengue Detection and Treatment,” DBT, MST, Govt. of India, Fund: INR 23.64 Lakh

### **Susmita Ghosh**

Fuzzy Set Theoretic Approach for Moving Object Detection and Tracking, DST-PURSE II

### **Jamuna Kanta Sing**

3D MRI brain image segmentation and visualization for therapy planning and monitoring from SERB, DST, GOI for 4 years (2016-2020), Fund: INR 21,34,000.

**PI: Nibaran Das, Co-PI: Mita Nasipuri** Extra Mural Research Project, “Development of knowledge graph from images using Deep learning”, SERB, Govt. of India, Fund: INR 33 Lakh

## **3. A. Invited Lectures Delivered by Faculty Members**

### **Ujjwal Maulik**

- Delivered a lecture (Keynote Speaker) on “Data Clustering in Single and Multiobjective Framework”, International Conference on Soft Computing: Theories and Application (SOcTA), 28-30 December, 2016, Jaipur, India
- Delivered a lecture on “Single and Multiobjective Clustering: Application to Image and Gene Micro Array Classification”, Univ. of Padova, Italy, May 18, 2016.
- Delivered a lecture on “Multiobjective Clustering with SVM Based Ensembling for Analysis of Gene Expression Data”, Department of Computer Science, Czech Technical University, Prague, Czech Republic, June 16, 2016
- Delivered a lecture on “Multiobjective Optimization: Theories and Application”, 1st Int. Conf. on Frontiers in Optimization: Theories and Application, Kolkata, India, Nov. 25, 2016

### **Nandini Mukherjee**

- Delivered a lecture on “Current Trends in Cloud Computing”, One-day seminar, Department of Computer Science and Engineering, Aliah University on August 9, 2016.
- Delivered a lecture on “Internet of Things” in 5-days faculty development program, Department of Computer Science and Engineering, MCKV Institute of Engineering on August 16, 2016.
- Delivered a lecture on “Internet of Things in Healthcare” 2-days technical workshop, Government College of Engineering and Textile Technology, Berhampore on October 21-22, 2016.

### **Anasua Sarkar**

- Delivered a lecture on “Data mining for competitive business and industry” GIAN course, Government College of Engineering and Leather technology, Kolkata course on June 30, 2016.

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**Chandreyee Chowdhury**

- Delivered a lecture on “Wireless Sensor Networks for Smart Healthcare” one-day seminar on cloud computing and sensor networks at Techno India Batanagar on September 13, 2016.
- Delivered a lecture on “Computation Offloading: Distribution of Computation” 2-day Seminar on Image Processing and Advanced Computing, MAKAUT, Kolkata, sponsored by TEQIP II and IEEE Kolkata Section on March 16, 2017.
- Delivered a lecture on “Introduction to Latex” 3-Day Workshop on LATEX, MAKAUT, Kolkata Sponsored by TEQIP II on March 20, 2017.

**Debesh Das**

- Delivered a lecture at 8th IEEE International Workshop on Reliability Aware System Design and Test, Mumbai, January, 2017.

**Debotosh Bhattacharjee**

- Delivered a lecture at “Image understanding” 2-day Seminar on Image Processing and Advanced Computing, MAKAUT, Kolkata, sponsored by TEQIP II and IEEE Kolkata Section on March 15, 2017.
- Delivered a lecture at “Medical Image analysis” at Ljubljana University, Slovenia, June 16, 2016.
- Acted as session chair at ICRCICN-2016, 23 - 25 September 2016, Kolkata.
- Acted as session chair at ICITISEE-2016, 23-24 April 2016, Yogyakarta, Indonesia.

**Kamal Sarkar**

- Delivered a lecture on “Machine Learning for Data Analysis”, 2-week Autumn school on “Internet of Things and Data Science, SMCC, JU, Kolkata in August 2016.

**Nibaran Das**

- Delivered a lecture on “Genetic Algorithm and its application”, in National Conference on Advance Computing, Communication and Devices’2017 (NCACCD 17), at Department of Computer Science and Engineering, Narula Institute of Technology, Kolkata on March 16-17, 2017.

**Sarbani Roy**

- Delivered a lecture on “Towards Cloud Federation”, a One week workshop on Practical Perspective towards Big Data in Cloud (PPBDC 2016), Department of IT, JU, July 11, 2016.
- Delivered a Lecture on 5 days Faculty Development Programme on Internet of Things, sponsored by TEQIP-II and organized by MCKVIE, August 16, 2016.
- Delivered a lecture on “Introduction to IOT and Cloud Computing” in Two weeks workshop on Internet of Things and Data Science Jointly Organized by Jadavpur University and University of Calcutta Under PROJECT - “REMOTE- HEALTH” funded by ITRA, Media Lab Asia, August 29, 2016.
- Delivered a lecture on “Cloud Computing” in the one day seminar on “Recent Trends in Intelligent Computing” at Supreme Knowledge Foundation Group of Institutions, Mankundu, Hooghly, on September 10, 2016.
- Delivered a lecture in one-day seminar on cloud computing and sensor networks at Techno India, W. B., on September 13, 2016.
- Delivered a lecture on “Social Network Analysis” in one day Seminar organized by Computer Science Department, Bethune College, on February 22, 2017.

- Delivered a lecture on “IoT-Cloud” in a 2-day Seminar on Image Processing and Advanced Computing at MAKAUT, W. B. Sponsored by TEQIP II and IEEE Kolkata Section, on March 16, 2017.

#### **Sudip Kumar Naskar**

- Delivered 3 lectures in the National Workshop on “Current Trends in Computational Linguistics and Its Applications in Odia Language”, Utkal University, Bhubaneswar, Odisha, India (October 24-26, 2016).

#### **Sanjoy Kumar Saha**

- Delivered a lecture on “Content based video copy detection”, Summer School, Indian Statistical Institute, Kolkata, June 2016
- Delivered a lecture on “Video Segmentation”, MNNIT Allahabad, Feb. 2017

#### **Subhadip Basu**

- Delivered a lecture on “Multi-scale opening of conjoined fuzzy objects: theory and applications”, at LORIA, University of Lorraine, France, June 7, 2016.
- Delivered a lecture on “Digital water flows: theory and applications”, at LORIA, University of Lorraine, France, June 2, 2016.
- Delivered a lecture on “Pattern Recognition and Image Analysis: current research and future possibilities”, at LORIA, University of Lorraine, France, May 25, 2016.
- Invited Speaker at workshop on “Applications of Machine Learning” at NIT, Silchar, March 21, 2017.
- Invited Speaker at workshop on “Image Processing and Advanced Computing” in technical collaboration with Computer Chapter, IEEE, Kolkata section, at MAKAUT, W.B., March 15, 2017.
- Invited Speaker at the one day seminar on “Recent Trends in Intelligent Computing” at Supreme Knowledge Foundation Group of Institutions, Mankundu, West Bengal on September 10, 2016.
- Delivered a lecture on “Pattern Recognition and Image Processing: Current Trends”, Techno India University, Aug. 10, 2016.

#### **Susmita Ghosh**

- Delivered a lecture on “Adversarial Search Strategies and Game Playing” at IDRBT, Hyderabad on June 2016.
- Delivered a lecture on “Genetic Algorithms and Their Applications” in a one week Workshop on “Applications of Machine Learning” at CSE Department, NIT Silchar, March 2017.

#### **Chintan Kumar Mandal**

- Delivered lecture in 3 days FDP on “Technical writing using Latex” at Tripura Institute of Technology, Narsingharh, Tripura, 28-30 July, 2016.

### **3. B. Seminar/Workshop/Conference/Symposium Attended**

#### **Nandini Mukherjee**

- Presented a paper entitled “Environment Monitoring in Smart Cities Using Virtual Sensors” in IEEE 4th International Conference on Future Internet of Things and Cloud (FiCloud), Vienna, 22<sup>nd</sup> - 24<sup>th</sup> August 2016.



- Presented a paper entitled “On uncertainty determination in eHealth sensors” in IEEE Sensors Applications Symposium (SAS), Glassboro, NJ, 13<sup>th</sup> - 15<sup>th</sup> March 2017.

**Anasua Sarkar**

- Presented a paper in National Seminar on ‘Chemistry In Human Life — A Current Aspect’, 2016, Kolkata.

**Chandreyee Chowdhury**

- Presented **two papers** at IEEE ANTS 2016 held in IISC, Bangalore on 06-09 November, 2016.
- Attended GIAN course on “Digital Topology and Geometry in Medical Imaging: Theory and Applications” held from 9th Jan to 14th Jan, 2017.

**Debesh Das**

- “Double Patterning Lithography (DPL)-Compliant Layout Construction (DCLC) with Area-Stitch Usage Tradeoff”, IEEE International Symposium on VLSI Design and Test, 24-27 May, 2016, IIT Guwahati, India.
- “On the Properties of Root-Functions in Logic Circuits,” Proceedings of 12th International Workshop on Boolean Problems, Freiberg, Germany, September, 2016.
- “Recognition of Ragas of Hindustani Music Played on Harmonium,” International Symposium on Frontiers of Research in Speech and Music (FRSM) 2016, Baripada, Orissa, India, November, 2016.
- “A New ALU Architecture Design using Reversible Logic,” Proceedings of IEEE International Symposium on Embedded Computing and System Design (ISED 2016), Patna, India, December 2016.
- “Design for testability technique of reversible logic circuit based on exclusive testing,” 8th IEEE International Workshop on Reliability Aware System Design and Test, Mumbai, January, 2017.

**Debotosh Bhattacharjee**

- Presented “Expression and occlusion invariant 3D face recognition based on region classifier,” at International Conference on Information Technology, Information Systems and Electrical Engineering (ICITISEE), 22nd August to 25th August 2016, Yogyakarta, Indonesia.
- 13th International Summer School on Biometrics from 20th June to 24th June 2016 at Alghero, Italy

**Kamal Sarkar**

- Presented, Second IEEE International Conference on Research in Computational Intelligence and Communication Networks (ICRCICN - 2016), RCC Institute of Information Technology Kolkata, India 23 Sep - 25 Sep 2016.
- Presented, First International Conference on Computational Intelligence, Communications, and Business Analytics CICBA-2017, held at Calcutta Business School on March 24-25, 2017.
- Presented, JU@DPIL-FIRE2016: Detecting Paraphrases in Indian Languages Using Multinomial Logistic Regression Model, FIRE 2016 - Forum for Information Retrieval Evaluation, Kolkata, India, December 7-10, 2016.

**Nibaran Das, Ram Sarkar**

- Attended the International Document Information Processing School (IDIPS2016), Samos, Greece, 4-8 July, 2016
- Attended the International Workshop on Pattern Analysis and Applications (IWPA) organized by Computer Vision and Pattern Recognition Unit of Indian Statistical Institute, Kolkata, January 18-20, 2017.

### **Nibaran Das**

- Attended GIAN course on “Digital Topology and Geometry in Medical Imaging: Theory and Applications” 9-14 Jan, 2017 at CSE Department, JU

### **Sudip Naskar**

- Somnath Banerjee, Kunal Chakma, Sudip Kumar Naskar, Amitava Das, Paolo Rosso, Sivaji Bandyopadhyay, and Monojit Choudhury. 2016. Overview of the Mixed Script Information Retrieval (MSIR) at FIRE. In Working notes of FIRE 2016 - Forum for Information Retrieval Evaluation, Kolkata, India, CEUR Workshop Proceedings. CEUR-WS.org.
- Santanu Pal, Sudip Kumar Naskar, Marcos Zampieri, Tapas Nayak and Josef van Genabith. 2016. CATaLog Online: A Web-based CAT Tool for Distributed Translation with Data Capture for APE and Translation Process Research. In the Proceedings of The 26th International Conference on Computational Linguistics (COLING 2016): System Demonstrations, Osaka, Japan, pp. 98–102.
- Santanu Pal, Sudip Kumar Naskar and Josef van Genabith. 2016. Multi-Engine and Multi-Alignment Automatic Post-Editing and its Impact on Translation Productivity. In the Proceedings of The 26th International Conference on Computational Linguistics (COLING 2016): Technical Papers, Osaka, Japan, pp. 2559–2570.
- Joy Mahapatra, Sudip Kumar Naskar and Sivaji Bandyopadhyay. 2016. Statistical Natural Language Generation from Tabular Non-textual Dataset. In the Proceedings of The 9th International Natural Language Generation Conference (INLG 2016), Edinburgh, Scotland, September 5-8, 2016, pp. 143–152.

### **Debotosh Bhattacharjee, Subhadip Basu**

- Attended the Workshop on “Initiatives in Outcome based education and NBA accreditation”, under Faculty and Staff development program, organized by Jadavpur University under TEQIP-II, at Hayat Regency, Kolkata, during March 06-08, 2017.

### **Chintan Kumar Mandal**

- Poster presentation of “Face recognition based household security system for the elderly citizens living alone”, in ACSS-2016, Aug 12-14, 2016 at University of Calcutta, India.

## **3. C. Seminar/Workshop/Conference/Symposium Organized**

### **Ujjwal Maulik**

Program Chair, 2nd Int. Conf. on Computational Intelligence and Communication Networks, Sept. 23-25, Kolkata, India, 2016.

### **Nandini Mukherjee**

2-weeks workshop on “Internet of Things and Data Science” jointly with Department of Computer Science and Engineering, University of Calcutta from 29<sup>th</sup> August 2016 to 10<sup>th</sup> September 2016.

### **Debesh Das**

VLSI design and Nanotechnology: Issues and Challenges, during 28 Nov 2016 to 17 Dec 2016, at Jadavpur University

### **Sarbani Roy, Chandreyee Chowdhury, Nandini Mukherjee, Sarmistha Neogy, Ujjwal Maulik**

Joint Coordinators of Workshop on “IoT and Data Mining” at Computer Science and Engineering Dept, Jadavpur University, 23-24<sup>th</sup> March, 2017.

**Mridul Sankar Barik, Chintan Mandal, Subhadip Basu, Sarbani Roy, Nibaran Das, Ram Sarkar, Chandreyee Chowdhury, Anasua Sarkar, Dipankar Das, Sudip Kumar Naskar**

Joint Coordinators of Workshop on “Curriculum Development: Industry Perspectives” at Computer Science and Engineering Dept, Jadavpur University, 29-30<sup>th</sup> March, 2017.

**Mita Nasipuri, Subhadip Basu**

Joint coordinator, MHRD GIAN course on “Digital Topology and Geometry in Medical Imaging: Theory and Application,” held at the CSE Department during 09/01/2017 to 14/01/2017

**3. D. Orientation Courses/Refresher Courses Attended**

**Chintan Kumar Mandal**

- Attended UGC sponsored refresher course in Mathematical Sciences from 8th March to 29th March, 2017

**4. A. Books/Monographs etc Published:**

**Ujjwal Maulik**

S. Bhattacharyya, U. Maulik and P. Datta, Quantum Inspired Computational Intelligence: Research and Application, Morgan Kaufmann, Elsevier, 2016.

**Dipankar Das and Sivaji Bandyopadhyay**

E. Cambria, D. Das, S. Bandyopadhyay and F. Antonio “A Practical Guide to Sentiment Analysis”, with Springer publishing house in the series <http://www.springer.com/series/13199>, LNCS, 978-3-319-55392

**4. B. Book Chapters:**

**Anasua Sarkar**

1. Anamika Basu and Anasua Sarkar, “Molecular docking based anti-allergic drug design”, Applied Case Studies and Solutions in Molecular Docking-Based Drug Design, Publisher: IGI-Global, Chapter 9, pp. 232-248, May, 2016
2. Kalyan Mahata, Rajib Das, Shubhashish Das and Anasua Sarkar, Fuzzy evaluated Quantum CA approach for Watershed Image Analysis, Quantum Inspired Computational Intelligence: Research and Applications, Morgan Kaufmann - an imprint of Elsevier, Chapter 8, pp. 259-284, 2016.
3. Kalyan Mahata, Rajib Das and Anasua Sarkar, Indian River Watershed Image Analysis using Fuzzy-CA hybrid approach, Handbook of Intelligent Analysis of Multimedia Information, Publisher: IGI-Global, Chapter 8, pages 232-246, 2016.

**Sarbani Roy & Chandreyee Chowdhury**

- Sarbani Roy, Chandreyee Chowdhury, Integration of Internet of Everything (IoE) with Cloud, book chapter for Beyond the Internet of Things: Everything Interconnected”, Springer, 2017.

**Chandreyee Chowdhury**

- C. Chowdhury, N. Aslam, S. Spinsante, D. Perla, A. Del Campo, E. Gambi (2016) Energy Efficient Communication in Ambient Assisted Living, book chapter for “Ambient Assisted Living and Enhanced Living Environments: Principles, Technologies and Control”, Elsevier, 2016, pp. 37-59.

#### 4. C. Articles Published in Journals:

##### Ujjwal Maulik

1. U. Maulik and D. Chakraborty, "A Survey of SVM-based Advanced Technique for Remote Sensing Image Classification", IEEE Geoscience and Remote Sensing Magazine, DOI:10.1109/MGRS.2016.2641240, 2017.
2. Sumanta Ray and Ujjwal Maulik, "Discovering Perturbation of Modular Structure in HIV Progression by Integrating Multiple Data Sources Through Non-Negative Matrix Factorization", IEEE/ACM TCBB, DOI: 10.1109/TCBB.2016.2642184, 2016.
3. S. Basu and U. Maulik, "A Game Theory Inspired Approach to Stable Core Decomposition on Weighted Networks", IEEE Transactions on Knowledge and Data Engineering (TKDE), 28(5): 1105-1117, 2016.
4. S. Basu, U. Maulik and O. Chatterjee, "Stability of Consensus Node Orderings Under Imperfect Network Data", IEEE Transactions on Computational Social Systems, 3(3): 120-131, 2016.
5. Jnanendra Prasad Sarkar, Indrajit Saha, Ujjwal Maulik "Rough Possibilistic Type-2 Fuzzy C-Means clustering for MR brain image segmentation. Appl. Soft Comput. 46: 527-536 (2016)
6. Sandip Dey, Siddhartha Bhattacharyya, Ujjwal Maulik: New quantum inspired meta-heuristic techniques for multi-level colour image thresholding. Appl. Soft Comput. 46: 677-702 (2016)

##### Mita Nasipuri, Mahantapas Kundu, Jamuna Kanta Sing, Debotosh Bhattacharjee, Subhadip Basu, Nibaran Das, Ram Sarkar

7. Abul Hasnat, Santanu Halder, Debotosh Bhattacharjee, Mita Nasipuri, "A Proposed Grayscale Face Image Colorization System using Particle Swarm Optimization", International Journal of Virtual and Augmented Reality (IJVAR), IGI publication, Vol. 1, Issue 2, 2017.
8. A Seal, D Bhattacharjee, M Nasipuri, "Predictive and probabilistic model for cancer detection using computer tomography images", Multimedia Tools and Applications Journal, Springer, pp. 1-20, 2017.
9. Satyabrata Maity, Amlan Chakrabarti, Debotosh Bhattacharjee, "A Novel Approach for Human Action Recognition from Silhouette Images," IETE Journal of Research, Taylor and Francis Publication, pages 1-12, November 2016.
10. Ayan Seal, Debotosh Bhattacharjee, Mita Nasipuri, "Human face recognition using random forest based fusion of à-trous wavelet transform coefficients from thermal and visible images," AEU-International Journal of Electronics and Communications, Vol. 70, Issue 8, pp. 1041-1049, 2016, Urban & Fischer Publisher.
11. Hiranmoy Roy, Debotosh Bhattacharjee, "Face Sketch-Photo Matching Using the Local Gradient Fuzzy Pattern," IEEE Intelligent Systems, vol. 31, pp. 30-39, 2016.
12. Hiranmoy Roy, Debotosh Bhattacharjee, "Face Sketch-Photo Matching Using the Local Gradient Checksum," International Journal of Machine Learning and Cybernetics, Springer, Heidelberg, Germany, pp. 1-13, March 2016.
13. Hiranmoy Roy, Debotosh Bhattacharjee, "Local-Gravity-Face (LG-face) for Illumination-Invariant and Heterogeneous Face Recognition," IEEE Transactions on Information Forensics and Security, vol. 11, pp. 1412-1424, 2016.
14. Pramit Ghosh, Debotosh Bhattacharjee, Mita Nasipuri, "Blood smear analyzer for white blood cell counting: A hybrid microscopic image analyzing technique", Applied Soft Computing, Elsevier, vol. 46, pp. 629-638, 2016.

15. Suranjan Ganguly, Debotosh Bhattacharjee, Mita Nasipuri, "Fuzzy matching of edge and curvature based features from range images for 3D face recognition", *Intelligent Automation & Soft Computing*, Taylor & Francis, pp. 1-12, January 2016.
16. S. Kahali, S. K. Adhikari and J. K. Sing, "On estimation of bias field in MRI images: polynomial vs Gaussian surface fitting method", *Journal of Chemometrics*, (John Wiley & Sons), vol. 30, pp. 602–620, 2016.
17. R. Sarkhel, N. Das, A. K. Saha, and M. Nasipuri, "A multi-objective approach towards cost effective isolated handwritten Bangla character and digit recognition," *Pattern Recognit.*, vol. 58, pp. 172–189, 2016.
18. R. Sarkhel, T. M. Chowdhury, M. Das, N. Das, and M. Nasipuri, "A novel Harmony Search algorithm embedded with metaheuristic Opposition Based Learning," *J. Intell. Fuzzy Syst.*, vol. 32, no. 4, pp. 3189–3199, 2017.
19. S. Malakar, P. Sharma, P. K. Singh, M. Das, R. Sarkar, M. Nasipuri, "A Holistic Approach for Handwritten Hindi Word Recognition", *International Journal of Computer Vision and Image Processing*, IGI Global, pp. 61-81, vol. 7, issue 1, January-March-2017, ISSN: 2155-6997, eISSN: 2155-6989.
20. P. K. Singh, S. Das, R. Sarkar, M. Nasipuri, "Feature Selection using Harmony Search for Script Identification from Handwritten Document Images", *Journal of Intelligent Systems*, 2017. DOI: <https://doi.org/10.1515/jisys-2016-0070>
21. P. K. Singh, R. Sarkar, M. Nasipuri, "Significance of Non-parametric statistical tests for Comparison of classifiers over multiple datasets", *International Journal of Computing Science and Mathematics*, Inderscience, vol.7, no.5, pp. 410 – 442, 2016.
22. P. K. Singh, R. Sarkar, M. Nasipuri, "A Study of Moment Based Features on Handwritten Digit Recognition", *Applied Computational Intelligence and Soft Computing*, Hindawi, vol. 2016, Article ID 2796863, 17 pages, DOI: <http://dx.doi.org/10.1155/2016/2796863>.
23. Indranil Guha, Nirmal Das, Pranati Rakshit, Mita Nasipuri, Punam K. Saha, Subhadip Basu, "A semiautomatic approach for segmentation of carotid vasculature from patients' CTA images", *Innovations in Systems and Software Engineering*, Springer (in press).
24. P K Singh, R Sarkar, N Das, S Basu, M Kundu, M Nasipuri, "Benchmark databases of handwritten Bangla-Roman and Devanagari-Roman mixed-script document images", *Multimedia Tools and Applications*, Springer (in press).
25. P. Dutta, S. Basu and M. Kundu, "Assessment of semantic similarity between proteins using information content and topological properties of the Gene Ontology graph", *IEEE/ACM Transactions on Computational Biology and Bioinformatics* (in press).
26. A. Banerjee, S. Basu, Subhadip Basu, M. Nasipuri, "ARTeM: a new system for human authentication using finger vein images", *Multimedia Tools and Applications*, Springer (in press).
27. P. K. Saha, Subhadip Basu, E. A. Hoffman, "Multi-Scale Opening of Conjoined Fuzzy Objects: Theory and Applications," *IEEE Transactions on Fuzzy Systems* 24, no. 5 (2016): 1121-1133.
28. P. Chatterjee, Subhadip Basu, J. Zubeck, M. Kundu, M. Nasipuri and D. Plewczynski, "PDP-CON: Prediction of domain/linker residues in protein sequences using consensus approach," *Journal of molecular modelling*, vol. 22, no. 4 (2016): 1-15.



29. Subhadip Basu, D. Plewczynski, S. Saha, M. Roszkowska, M. Magnowska, E. Baczynska, and J. Wlodarczyk, "2dSpAn: semiautomated 2-d segmentation, classification and analysis of hippocampal dendritic spine plasticity," *Bioinformatics*, 32 (16), pp. 2490 – 2498, 2016.

**Susmita Ghosh**

30. A. Mondal, S. Ghosh and A. Ghosh, "Robust Global and Local Fuzzy Energy based Active Contour for Image Segmentation," *Applied Soft Computing*, vol. 4. 47, no. 2016, pp. 191-215, 2016.
31. B. N. Subudhi, S. Ghosh, S-B. Cho and A. Ghosh, "Integration of Fuzzy Markov Random Field and Local Informatin for Separation of Moving Objects and Shadow", *Information Sciences*, vol. 331, pp. 15-31, 2016.
32. B. N. Subudhi, S. Ghosh, S. C. K. Shiu and A. Ghosh, "Statistical Feature Bag Based Background Subtraction for Local Change Detection", *Information Sciences*, vol. 366, issue 1, pp. 31-47, 2016.
33. A. Datta, S. Ghosh and A. Ghosh, "Unsupervised Band Extraction of Hyperspectral Images using Clustering and kernel Principal Component Analysis", *International Journal of Remote Sensing*, vol. 38, issue 3, pp. 850-873, 2017.
34. A. Mondal, S. Ghosh and A. Ghosh, "Partially Camouflaged Object Tracking using Modified Probabilistic Neural Network and Fuzzy Energy based Active Contour", *International Journal of Computer Vision*, Springer, vol. 122(1), pp. 116-148, 2017.
35. B. N Subudhi, S. Ghosh, P. K. Nanda, and A Ghosh, "Moving Object Detection using Spatio-temporal Multilayer Compound Markov Random Field and Histogram Thresholding based Change Detection", *Multimedia Tools and Applications*, vol.76, no.11, pp. 13511-13543, 2017.
36. A. Datta, S. Ghosh and A. Ghosh, "Supervised Feature Extraction of Hyperspectral Images using Partitioned Maximum Margin Criterion", *IEEE Journal of Geoscience and Remote Sensing Letters*, vol. 14, no. 1, pp. 82-86, 2017.

**Nandini Mukherjee**

37. Khatua, Sunirmal, Preetam Kumar Sur, Rajib Kumar Das, and Nandini Mukherjee. "Heuristic-based resource reservation strategies for public cloud." *IEEE Transactions on Cloud Computing* 4, no. 4 (2016): 392-401.
38. Mistry, Sujoy, Dibyanshu Jaiswal, Arijit Mukherjee, and Nandini Mukherjee. "P2P Based Service Provisioning on Distributed Resources." *International Journal of Next-Generation Computing* 7, no. 3 (2016).

**Sarbani Roy**

39. Tanmoy Maitra, Sarbani Roy, A comparative study on popular MAC protocols for mixed Wireless Sensor Networks: From implementation viewpoint, *Computer Science Review*, Elsevier, Volume 22, pp. 107-134, November 2016.
40. Zeenat Rehana, Sarbani Roy, Nandini Mukherjee, Multi-criteria Routing in a Partitioned Wireless Sensor Network, *Wireless Personal Communications*, Springer, Volume 94, Issue 4, pp. 3415-3449, October 2016.
41. Paramita Dey, Maitreyee Ganguly, Sarbani Roy, Network centrality based team formation: A case study on T-20 cricket, *Applied Computing and Informatics*, December 2016.

**Anasua Sarkar**

42. Debasis Chakraborty, Anasua Sarkar, Ujjwal Maulik. A New isotropic locality improved kernel for pattern classifications in remote sensing imagery. *Spatial Statistics [Impact factor:1.605]*, ELSEVIER, VOL. 17, PAGES – 71-82, May 2016.



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**Chitrita Chaudhuri**

43. Chaudhuri, A.Chaudhuri, “Auto-Upgrading of Signature Case-Base used for Efficient Detection of Identity and Authenticity”, *International Journal of Research in Engineering and Applied Sciences (IJREAS)* Vol. 6, Issue 5 (May, 2016) (ISSN 2249-3905), pp. 157-172.
44. Chaudhuri, C. Roy, A.Chaudhuri, “CBR-based Archiving of Contextual Documents with Check for Plagiarism”, *International Journal of Research in IT & Management (IJRIM)* Vol. 6, Issue 5 (May, 2016) (ISSN 2231-4334), pp. 95-108.

**Debesh Das**

45. Arindam Banerjee and Debesh K. Das, “A New Squarer Design with Reduced Area and Delay,” *IET Computers and Digital Techniques*, vol. 10, no. 5, pp. 205 – 214, september, 2016.
46. Arighna Deb, Debesh K Das, Hafizur Rahaman, and Bhargab B. Bhattacharya, Robert Willie and Rolf Drechsler, “Reversible Synthesis of Symmetric Functions with a Simple Regular Structure and Easy Testability,” *ACM Journal on Emerging Technologies in Computing Systems*, Volume 12(4):34, June 2016.

**Diganta Saha**

47. Alok Ranjan Pal, Diganta Saha and Antara Pal(2017) “A Knowledge based Methodology for Word Sense Disambiguation for Low Resource Language”, has been published in *International Journal of Advances in Computational Sciences and Technology*, ISSN 0973-6107 , Volume 10, Number 2 (2017) pp. 267-283

**Kamal Sarkar**

48. Sarkar, K. & Shaw, S. (2016). A Memory-Based Learning Approach for Named Entity Recognition in Hindi, *Journal of Intelligent Systems*, 26(2), pp. 301-321

**E. Articles Published in Conference:**

**Dipankar Das**

1. B. G. Patra, D. Das, S. Bandyopadhyay. 2016. Multimodal Mood Classification – A Case Study of Differences in Hindi and Western Songs, COLING 2016, pp. 1980-1989, Osaka, Japan
2. T. Saikh, D. Das and S. Bandyopadhyay. 2016. Identifying and Pruning Features for Classifying Translated and Post-Edited Gaze Durations. In the Proceedings of third International Conference on Mining Intelligence and Knowledge Exploration (MIKE 2016), R. Prasath and A. Gelbukh (Eds.): MIKE 2016, LNAI 10089, pp. 1–13, 2017, DOI: 10.1007/978-3-319-58130-9\_12
3. S. Sarkar, P. Pakray, D. Das and A. Gelbukh. 2016. Regression based Approaches for detecting and measuring Textual Similarity. In the Proceedings of third International Conference on Mining Intelligence and Knowledge Exploration (MIKE 2016), R. Prasath and A. Gelbukh (Eds.): MIKE 2016, LNAI 10089, pp. 1–9, 2017, DOI: 10.1007/978-3-319-58130-9\_14
4. S. Ghosh, S. Ghosh and D. Das. 2016. Part-of-speech Tagging of Code-Mixed Social Media Text. Proceedings of the Second Workshop on Computational Approaches to Code Switching, EMNLP, pp. 90–97
5. A. Mandal, D. Das, E. Cambria, S. Bandyopadhyay. 2016. WME: Sense, Polarity and Affinity based Concept Resource for Medical Events. In the proceedings of 10th Global WordNet Conference (GWC-2016), Mititelu et al., pp. 242-246.

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**Sanjoy Kumar Saha**

6. Physiological sensing based stress analysis during assessment , IEEE Frontiers in Education Conference (FIE), Oct. 2016
7. A Probabilistic Approach for Detection and Analysis of Cognitive Flow, Bayesian Modeling Application Workshop (BMAW), June, 2016
8. A Beta Distribution Based Novel Scheme for Detection of Changes in Crowd Motion, Workshop on Computer Vision and Application, A satellite Workshop of ICVGIP, Dec. 2016

**Sudip Naskar**

9. Somnath Banerjee, Kunal Chakma, Sudip Kumar Naskar, Amitava Das, Paolo Rosso, Sivaji Bandyopadhyay, and Monojit Choudhury. 2016. *Overview of the Mixed Script Information Retrieval (MSIR) at FIRE*. In Working notes of FIRE 2016 - Forum for Information Retrieval Evaluation, Kolkata, India, December 7-10, 2016, CEUR Workshop Proceedings. CEUR-WS.org.
10. Tanik Saikh, Sudip Kumar Naskar, Sivaji Bandyopadhyay. 2016. *JU\_NLP@DPIL-FIRE2016: Paraphrase Detection in Indian Languages - A Machine Learning Approach*. In Working notes of FIRE 2016 - Forum for Information Retrieval Evaluation, Kolkata, India, December 7-10, 2016, CEUR Workshop Proceedings. CEUR-WS.org.
11. Surajit Dasgupta, Abhash Kumar, Dipankar Das, Sudip Kumar Naskar and Sivaji Bandyopadhyay. 2016. *Word Embeddings for Information Extraction from Tweets*. In Working notes of FIRE 2016 - Forum for Information Retrieval Evaluation, Kolkata, India, December 7-10, 2016, CEUR Workshop Proceedings. CEUR-WS.org.
12. Amit Majumder, Asif Ekbal and Sudip Kumar Naskar. 2016. *Biomolecular Event Extraction using a Stacked Generalization based Classifier*. In the Proceedings of the 13th International Conference on Natural Language Processing (ICON-2016), IIT (BHU), Varanasi, India, December 17-20, 2016, pp. 55–64.
13. Santanu Pal, Sudip Kumar Naskar, Marcos Zampieri, Tapas Nayak and Josef van Genabith. 2016. *CATaLog Online: A Web-based CAT Tool for Distributed Translation with Data Capture for APE and Translation Process Research*. In the Proceedings of The 26th International Conference on Computational Linguistics (COLING 2016): System Demonstrations, Osaka, Japan, 11-16 December, 2016, pp. 98–102.
14. Santanu Pal, Sudip Kumar Naskar and Josef van Genabith. 2016. *Multi-Engine and Multi-Alignment Automatic Post-Editing and its Impact on Translation Productivity*. In the Proceedings of The 26th International Conference on Computational Linguistics (COLING 2016): Technical Papers, Osaka, Japan, 11-16 December, 2016, pp. 2559–2570.
15. Joy Mahapatra, Sudip Kumar Naskar and Sivaji Bandyopadhyay. 2016. *Statistical Natural Language Generation from Tabular Non-textual Dataset*. In the Proceedings of The 9th International Natural Language Generation Conference (INLG 2016), Edinburgh, Scotland, September 5-8, 2016, pp. 143–152.
16. Koushik Pahari, Alapan Kuila, Santanu Pal, Sudip Kumar Naskar, Sivaji Bandyopadhyay and Josef van Genabith. 2016. *JU-USAAR: A Domain Adaptive MT System*. In the Proceedings of the ACL 2016 First Conference on Machine Translation (WMT16), August 11-12, Berlin, Germany, 442–448.

17. Santanu Pal, Sudip Kumar Naskar, Mihaela Vela and Josef van Genabith. 2016. *A Neural Network based Approach to Automatic Post-Editing*. In the Proceedings of The 54th Annual Meeting of the Association for Computational Linguistics (ACL 2016), August 7-12, Berlin, Germany, 281–286.
18. Tapas Nayek, Santanu Pal, Sudip Kumar Naskar, Sivaji Bandyopadhyay and Josef van Genabith. 2016. *Beyond Translation Memories: Generating Translation Suggestions based on Parsing and POS Tagging*. In the Proceedings of the 2nd Workshop on Natural Language Processing for Translation Memories (NLP4TM 2016), Portoroč, Slovenia, 28 May 2016, pp 12–20.
19. Santanu Pal, Tapas Nayek, Sudip Kumar Naskar, Marcos Zampieri, Mihaela Vela and Josef van Genabith. 2016. *CATaLog Online: Porting a Post-editing Tool to the Web*. In the Proceedings of the 10th edition of the Language Resources and Evaluation Conference (LREC 2016), Portoroč, Slovenia, May 23-28, 2016, pp. 599–604.
20. Santanu Pal, Sudip Kumar Naskar and Josef van Genabith. 2016. *Forest to String Based Statistical Machine Translation with Hybrid Word Alignments*. In the Proceedings of The 17th International Conference on Intelligent Text Processing and Computational Linguistics (CICLing 2016), Konya, Turkey, April 3-9, 2016.

#### **Nirmalya Chowdhury**

21. D. Barman, A. Tudu, N. Chowdhury, “Opinion classification based on product reviews from an Indian e-commerce website”, Proceedings of the Second International Conference on Computer and Communication Technologies (IC3T-2015), India, Springer India, Volume 380, pp. 711-724, 2016.
22. D. Barman, K. K. Shaw, A. Tudu, and N. Chowdhury. “Classification of Bank Direct Marketing Data Using Subsets of Training Data.” Proceedings of the Information Systems Design and Intelligent Applications, pp. 143-151. Springer India, 2016.

#### **Kamal Sarkar**

23. K. Sarkar, KS\_JU@DPIIL-FIRE2016: Detecting Paraphrases in Indian Languages Using Multinomial Logistic Regression Model. In proceedings of FIRE 2016 (Working Notes), ceur-ws.org, Vol-1737, 2016 (**BEST PAPER**)
24. K. Sarkar, D. Das, I. Banerjee, M. Kumari and P. Biswas, JU\_KS\_Group@FIRE 2016: Consumer Health Information Search, Working notes of FIRE 2016 - Forum for Information Retrieval Evaluation, Kolkata, India, December 7-10, 2016, PP 208—213.
25. K. Sarkar, A CRF Based POS Tagger for Code-mixed Indian Social Media Text, In Proceedings of NLP tool contest on “POS Tagging for Code-Mixed Indian Social Media Text”, held in conjunction with the 13th International Conference on Natural Language Processing 2016 (ICON 2016), Indian Institute of Technology (BHU), India
26. Kamal Sarkar, A. Gupta, An Empirical Study of Some Selected IR Models for Bengali Monolingual Information Retrieval, ICBIM 2016, NIT Durgapur, 09 Jan - 11 Jan 2016. (**BEST PAPER**)
27. M. Babu and K. Sarkar, “A comparative study of gene selection methods for cancer classification using microarray data,” 2016 Second International Conference on Research in Computational Intelligence and Communication Networks (ICRCICN), Kolkata, 2016, pp. 204-211.
28. Kamal Sarkar and Soma Chatterjee. Bengali-to-English Forward and Backward Machine Transliteration Using Support Vector Machines, In proceedings of First International Conference on Computational Intelligence, Communications, and Business Analytics (CICBA-2017), Calcutta Business School, March 24-25, 2017

### **Diganta Saha**

29. Alok Ranjan Pal and Diganta Saha(2016), "Word Sense Disambiguation in Bengali: An Auto-Updated Learning Set Increases the Accuracy of the Result", 3rd International Conference on Information System Design & Intelligent Applications, pp. 423-430, India.
30. Ayan Patra, Pooja Banerjee, Ritwika Mandal and Diganta Saha(2016) "Efficient Cache Replacement Policy for Mobile Environment", Proceeding of the Third International Conference on Computing and Systems (ICCS 2016), January 20-21, 2016, Department of Computer Science, University of Burdwan, India, pp. 179-183.
31. Alok Ranjan Pal, Diganta Saha and Sudip Kumar Naskar(2017), "Word Sense Disambiguation in Bengali: a Knowledge based Approach using Bengali WordNet", Second IEEE International Conference on Electrical, Computer and Communication Technologies, February, 2017, pp.1363-1368.
32. Alok Ranjan Pal and Diganta Saha(2017), "Word Sense Disambiguation in Bengali: an Unsupervised Approach", Second IEEE International Conference on Electrical, Computer and Communication Technologies, February, 2017, pp.1369-1373.
33. Arijit Das, Tapas Halder and Diganta Saha(2017), "Automatic Extraction of Bengali Root Verbs using Paninian Grammar", IEEE International Conference On Recent trends in Electronics Information Communication Technology, May 19-20, 2017, India pp.944-947.

### **Anasua Sarkar**

34. Avik Bhattacharya, Anasua Sarkar, Piyali Basak, Quality Evaluation of Wavelet Functions for Myopulse suppression in Electrocardiogram, International Conference on SIGNAL PROCESSING, COMMUNICATION POWER & EMBEDDED SYSTEM ,SCOPEs – 2016, October 03-05, 2016 in Paralakhemundi, Odisha.
35. Avik Bhattacharya, Anasua Sarkar, Piyali Basak, Time Domain Multi-Feature Extraction and Classification of Human Hand Movements Using Surface EMG, ICACCS 2017, January 6-7, 2017, in Sri Eshwar College of Engineering, Coimbatore, Tamil Nadu. (**BEST PAPER**)
36. Arijit Ghosh, Anasua Sarkar, Tarak Das and Piyali Basak ,Pre-ictal epileptic seizure prediction based on ECG signal analysis, IEEE Sponsored 2nd International Conference for Convergence in Technology (I2CT) 2017.
37. Anamika Basu, Anasua Sarkar and Piyali Basak, QSAR Model for Mast Cell Stabilizing Activity of Indolecarboxamidotetrazole Compounds on Human Basophils, CICBA 2017.

### **Mita Nasipuri, Mahantapas Kundu, Jamuna Kanta Sing, Debotosh Bhattacharjee, Subhadip Basu, Nibaran Das, Ram Sarkar**

38. Sourav Pramanik, Debotosh Bhattacharjee and Mita Nasipuri,"Texture Analysis of Breast Thermogram for Differentiation of Malignant and Benign Breast," 5th International Conference on Advances in Computing, Communications and Informatics (ICACCI), LNMIIT, Jaipur, India, September 21-24, 2016 (**BEST PAPER**).
39. Ratnadeep Dey, Kaushiki Roy, Debotosh Bhattacharjee, Mita Nasipuri, "An automated system for measuring hematocrit level of human blood from total RBC count," 5th International Conference on Advances in Computing, Communications and Informatics (ICACCI), LNMIIT, Jaipur, India, September 21-24, 2016,

40. Shib Sankar Bhowmick, Indrajit Saha, Ujjwal Maulik, Debotosh Bhattacharjee “Biomarker Identification Using Next Generation Sequencing Data of RNA,” 5th International Conference on Advances in Computing, Communications and Informatics (ICACCI), LNMIIT, Jaipur, India, September 21-24, 2016,
41. Amlan Raychaudhuri, Satyabrata Maity, Amlan Chakrabarti and Debotosh Bhattacharjee, “A Novel Approach for Human Silhouette Extraction from Video Data”, 3rd International Doctoral Symposium on Applied Computation and Security Systems (ACSS), 12-14th August, 2016, Kolkata, India (**BEST PAPER**).
42. Priya Saha, Debotosh Bhattacharjee, Barin Kumar De, Mita Nasipuri, “Mathematical Representations of Blended Facial Expressions towards Facial Expression Modeling,” *Procedia Computer Science*, Volume 84, Pages 94–98, Elsevier, 2016.
43. Mrinal Kanti Bhowmik, Shawli Bardhan, Kakali Das, Debotosh Bhattacharjee, Satyabrata Nath, “Pain related inflammation analysis using infrared images,” *Conference SPIE Commercial+ Scientific Sensing and Imaging*, pp. 986116-986116-14, Publisher International Society for Optics and Photonics, 2016.
44. Priya Saha, Debotosh Bhattacharjee, Barin K De, Mita Nasipuri, “Characterization and recognition of mixed emotional expressions in thermal infrared face image,” *Conference SPIE Defence + Security*, pp. 98200S-98200S-10, Publisher International Society for Optics and Photonics, 2016.
45. Koushik Dutta, Debotosh Bhattacharjee, Mita Nasipuri, “Expression and occlusion invariant 3D face recognition based on region classifier,” *International Conference on Information Technology, Information Systems and Electrical Engineering (ICITISEE)*, pp. 99-104, October, 2016.
46. S. Kahali, S. K. Adhikari and J. K. Sing, “3D MRI Brain Image Segmentation: A Two-Stage Framework”, *Proc. of CICBA 2016*.
47. S. Ghosh, N. Das, T. Goncalves, and P. Quaresma, “Representing image captions as concept graphs using semantic information,” in *2016 International Conference on Advances in Computing, Communications and Informatics (ICACCI)*, 2016, pp. 162–167.
48. S. Choudhuri, N. Das, S. Ghosh, and M. Nasipuri, “A multi-cue information based approach to contour detection by utilizing superpixel segmentation,” in *2016 International Conference on Advances in Computing, Communications and Informatics (ICACCI)*, 2016, pp. 1057–1063.
49. S. M. Obaidullah, K. C. Santosh, C. Halder, N. Das, and K. Roy, “Word-Level Thirteen Official Indic Languages Database for Script Identification in Multi-script Documents,” in *International Conference on Recent Trends in Image Processing and Pattern Recognition*, 2016, pp. 16–27. (**BEST PAPER**)
50. A. Banerjee, N. Das, and M. Nasipuri, “Texture Classification Using Deep Neural Network Based on Rotation Invariant Weber Local Descriptor,” in *Recent Trends in Image Processing and Pattern Recognition: First International Conference, RTIP2R 2016*, Bidar, India, December 16–17, 2016, Revised Selected Papers, K. C. Santosh, M. Hangarge, V. Bevilacqua, and A. Negi, Eds. Singapore: Springer Singapore, 2017, pp. 277–292.
51. S. M. Obaidullah, C. Goswami, K. C. Santosh, C. Halder, N. Das, and K. Roy, “Separating Indic Scripts with `matra`—A Precursor to Script Identification in Multi-script Documents,” in *Proceedings of International Conference on Computer Vision and Image Processing: CVIP 2016*, Volume 1, B. Raman, S. Kumar, P. P. Roy, and D. Sen, Eds. Singapore: Springer Singapore, 2017, pp. 205–214.



52. T. Bandyopadhyay, S. Mitra, S. Mitra, L. M. Rato, and N. Das, "Analysis of Pancreas Histological Images for Glucose Intolerance Identification Using Wavelet Decomposition," in Proceedings of the 5th International Conference on Frontiers in Intelligent Computing: Theory and Applications/ : FICTA 2016, Volume 1, S. C. Satapathy, V. Bhateja, S. K. Udgata, and P. K. Pattnaik, Eds. Singapore: Springer Singapore, 2017, pp. 653–661.
53. S. Choudhuri, N. Das, and M. Nasipuri, "A Quality-Concordance Metric Based Contour Detection by Utilizing Composite-Cue Information and Particle Swarm Optimisation," in Proceedings of the 5th International Conference on Frontiers in Intelligent Computing: Theory and Applications/ : FICTA 2016, Volume 1, S. C. Satapathy, V. Bhateja, S. K. Udgata, and P. K. Pattnaik, Eds. Singapore: Springer Singapore, 2017, pp. 641–651.
54. B. Das, S. Bhowmik, A. Saha, R. Sarkar, "An Adaptive Foreground-Background Separation Method for Effective Binarization of Document Images", in 8th International Conference on Soft Computing and Pattern Recognition (SoCPaR 2016), December 19-21, 2016, VIT University. Vellore, India.
55. P. K. Singh, S. Das, R. Sarkar, M. Nasipuri, "Recognition of Offline Handwritten Devanagari Numerals using Regional Weighted Run Length Features", in International Conference on Computer, Electrical & Communication Engineering (ICCECE), 16-17 December, 2016, Kolkata, India. **(BEST PAPER)**
56. S. Begum, D. Chakraborty, R. Sarkar, "Breast Cancer Detection using Feature Selection and Active Learning", in ACCET, CRC Press, Taylor & Francis, pp. 212-217, 20-21 October, 2016, Murshidabad, India.
57. S. Bhowmik, S. Sen, N. Hori, R. Sarkar, M. Nasipuri, "Handwritten Devanagari numerals recognition using Grid based Hausdroff distance", in ACCET, CRC Press, Taylor & Francis, pp. 148-151, 20-21 October, 2016, Murshidabad, India.
58. S. Sen, M. Mitra, S. Chowdhury, R. Sarkar, K. Roy, "Quad-tree based Image Segmentation and Feature Extraction to Recognize Online Handwritten Bangla Characters", in 7th IAPR TC3 Workshop on Artificial Neural Networks for Pattern Recognition (ANNPR 2016), LNCS, 9896, Springer 2016, ISBN 978-3-319-46181-6, pp. 246-256, September 28-30, 2016, Ulm, Germany.
59. P. K. Singh, R. Sarkar, M. Nasipuri, "Statistical Textural features for Text-line level Handwritten Indic Script Identification", in 3rd International Doctoral Symposium on Applied Computation and Security Systems (ACSS), 12-14 August 2016, Kolkata, India.
60. S. Sen, R. Sarkar, K. Roy, "An Approach to Stroke-based Online Handwritten Bangla Character Recognition", in 3rd International Doctoral Symposium on Applied Computation and Security Systems (ACSS), 12-14 August 2016, Kolkata, India.
61. S. Begum, D. Chakraborty, R. Sarkar, "Identifying cancer biomarkers from leukemia data using feature selection and supervised learning", in IEEE 1st International Conference on Control, Measurement and Instrumentation (CMI-2016), pp. 249-253, 8-10, January, 2016, Kolkata, India.
62. N. Chakraborty, S. Mukherjee, A. R. Naskar, S. Malakar, R. Sarkar, M. Nasipuri, "Venn Diagram based Feature Ranking Technique for Key Term Extraction", in 5th International Conference on Frontiers of Intelligent Computing: Theory and applications (FICTA), Springer AISC, 16-17 September 2016, Bhubaneswar, India.
63. S. Barua, S. Malakar, S. Bhowmik, R. Sarkar, M. Nasipuri, "Bangla Handwritten City Name Recognition using Gradient based Feature", in 5th International Conference on Frontiers of Intelligent Computing: Theory and applications (FICTA), Springer AISC, 16-17 September 2016, Bhubaneswar, India.



64. S Paul, H Nasser, M Nasipuri, P Ngo, S Basu, I Debled-Rennesson, “A Statistical-Topological Feature Combination for Recognition of Isolated Hand Gestures from Kinect Based Depth Images”, IWCIA-2017, Plovdiv, Bulgaria [Accepted].
65. P. Dutta, S. Basu and M. Kundu, “A new hybrid semantic similarity measure using information content and topological features of the Gene Ontology graph.”, 2017 International Conference on Computer Communication and Informatics. [Accepted].
66. Abhimanyu Prasad, Sovan Saha, Piyali Chatterjee, Subhadip Basu and Mita Nasipuri, “Protein Function Prediction from Protein Interaction Network using Bottom-Up L2L Apriori Algorithm”, in the First International Conference on Computational Intelligence, Communications, and Business Analytics (CICBA - 2017), March 24-25, 2017.
67. P. Rakshit, N. Das, M. Nasipuri, S. Basu, “A Qualitative Hemodynamic Analysis on Human Cerebrovascular Phantom”, 1st International Conference on Advanced Computing and Intelligent Engineering (ICACIE), Dec. – 2016.
68. S. Saha, P. Chatterjee, S. Basu, M. Kundu, M. Nasipuri, “Gene Ontology Based Function Prediction of Human Protein Using Protein Sequence and Neighborhood Property of PPI Network”, FICTA, Sep, 2016.
69. Pranati Rakshit, Nirmal Das, Mita Nasipuri and Subhadip Basu, “Hemodynamic Analysis on Human Cerebrovascular Phantom with and without Aneurysm” in International Conference on Computing and Communication System– November 11-13, 2016 (I3CS-2016).
70. R. Mitra, P. Chatterjee, S. Basu, M. Kundu, M. Nasipuri, “PLoc-Euk: An ensemble classifier for prediction of Eukaryotic Protein Subcellular Localization”, FICTA, Sep, 2016.
71. I. Guha, N. Das, P. Rakshit, M. Nasipuri, P. K. Saha, S. Basu, “Design of cerebrovascular phantoms using fuzzy distance transform based geodesic paths”, 4th International Conference on Advanced Computing, Networking, and Informatics (ICACNI), Sep. 2016. **(BEST PAPER)**
72. Sovan Saha, Piyali Chatterjee, Subhadip Basu, Mita Nasipuri “Functional Group Prediction of Un-annotated Protein by Exploiting its Neighborhood Analysis in Saccharomyces Cerevisiae Protein Interaction Network” in the Proceedings of 3rd International Doctoral Symposium on Applied Computation and Security Systems (ACSS) 2016.
73. Subhadip Basu, Punam Kumar Saha, Dariusz Plewczynski, M. Roszkowska, M. Magnowska, Jakub Wlodarczyk, “3dSpAn: assessment of structural plasticity in hippocampal dendritic spines using quantitative 3-D morphometry”, EMBO Conference on Imaging the Brain, 18-21 May, 2016, Poland.

### **Susmita Ghosh**

74. A. Mondal, K. R. Murthy, A. Ghosh and S. Ghosh, “Robust Image Segmentation using Global and Local Fuzzy Energy based Active Contour” IEEE International Conference on Fuzzy System (FUZZ-IEEE 2016) IEEE, pp. 1341-1348, Canada, 2016.
75. A. Mondal, S. Ghosh and A. Ghosh, “Neural Approach for Object Tracking in Complex Environment”, IEEE International Conference on Systems, Man, and Cybernetics (SMC 2016), IEEE, pp. 1-6, Budapest, 2016.
76. A. Mondal, A. Ghosh and S. Ghosh, Prototypes based Discriminative Appearance Model for Object Tracking, Indian Conference on Computer Vision, Graphics and Image Processing (ICVGIP), ACM, pp. 1-8, India, 2016.
77. S. Das, J. Leopold, S. Ghosh and S. K. Das, “Graph Partitioning in Parallelization of Large Scale Networks”, IEEE Conference on Local Computer Networks (LCN) 2016, pp. 176-179.

78. S. Das, S. K. Das and S. Ghosh, "Inferring Future Links in Large Scale Networks", IEEE Conference on Local Computer Networks (LCN) 2016, pp. 242-252.
79. S. Bose and N. Mukherjee, "SensIaas: A Sensor-Cloud Infrastructure with Sensor Virtualization," 2016 IEEE 3rd International Conference on Cyber Security and Cloud Computing (CSCloud), Beijing, 2016, pp. 232-239. doi: 10.1109/CSCloud.2016.28

**Nandini Mukherjee**

80. S. Bose and N. Mukherjee, "SensIaas: A Sensor-Cloud Infrastructure with Sensor Virtualization," 2016 IEEE 3rd International Conference on Cyber Security and Cloud Computing (CSCloud), Beijing, 2016, pp. 232-239. doi: 10.1109/CSCloud.2016.28
81. S. Bose and N. Mukherjee, "PriOR: A prime number based I/O redirection algorithm for sensor-cloud infrastructure," 2016 International Conference on High Performance Computing & Simulation (HPCS), Innsbruck, 2016, pp. 605-612. doi: 10.1109/HPCSim.2016.7568391
82. S. Bose, N. Mukherjee and S. Mistry, "Environment Monitoring in Smart Cities Using Virtual Sensors," 2016 IEEE 4th International Conference on Future Internet of Things and Cloud (FiCloud), Vienna, 2016, pp. 399-404. doi: 10.1109/FiCloud.2016.63
83. A. Gupta and N. Mukherjee, "Rationale behind the virtual sensors and their applications," 2016 International Conference on Advances in Computing, Communications and Informatics (ICACCI), Jaipur, 2016, pp. 1608-1614. doi: 10.1109/ICACCI.2016.7732278
84. S. Mondal and N. Mukherjee, "Mobile-assisted remote healthcare delivery," 2016 Fourth International Conference on Parallel, Distributed and Grid Computing (PDGC), Wagnaghat, 2016, pp. 630-635.
85. S. Mondal and N. Mukherjee, "A framework for ICT-based primary healthcare delivery for children," 2017 9th International Conference on Communication Systems and Networks (COMSNETS), Bengaluru, India, 2017, pp. 525-529.
86. A. Gupta, S. Sarkar and N. Mukherjee, "On uncertainty determination in eHealth sensors," 2017 IEEE Sensors Applications Symposium (SAS), Glassboro, NJ, 2017, pp. 1-6.

**Nandini Mukherjee and Sarmistha Neogy**

87. A. S. Mondal, S. Chattopadhyay, S. Neogy and N. Mukherjee, "Object based schema oriented data storage system for supporting heterogeneous data," 2016 International Conference on Advances in Computing, Communications and Informatics (ICACCI), Jaipur, 2016, pp. 1025-1032. doi: 10.1109/ICACCI.2016.7732179

**Sarbani Roy**

88. Tanmoy Maitra, Paramita Mallick, Sarbani Roy, LD-MAC: A Load-Distributed Data Transmission in Body Area Network, in IEEE Sensors, Orlando, FL, USA, 2016.
89. Moumita Deb and Sarbani Roy, Link Quality Modeling for Energy Harvesting Wireless Sensor Networks, Proceedings of the First International Conference on Intelligent Computing and Communication, Volume 458 of the series Advances in Intelligent Systems and Computing, Springer Singapore, pp. 669678, 2016.
90. Benay Ray, Asif Middy, Sarbani Roy, Sunirmal Khatua, Multi-Criteria Based Federation Selection in Cloud, in 9th International Conference on COMMunication Systems & NETWORKS (COMSNETS), Bangalore, India, 2017.

91. Tanmoy Maitra, Sarbani Roy, SecPMS: An Efficient and Secure Communication Protocol for Continuous Patient Monitoring System Using Body Sensors, in 9th International Conference on COMmunication Systems & NETworkS (COMSNETS), Bangalore, India, 2017.
92. Amitrajit Sarkar, Srijan Chattopadhyay, Paramita Dey, Sarbani Roy, The Importance of Seed Nodes in Spreading Information in Social Networks: A Case Study”, in 9th International Conference on COMmunication Systems & NETworkS (COMSNETS), Bangalore, India, 2017.
93. Srimoyee Bhattacharjee, Uttiya Sarkar, Sunirmal Khatua, Sarbani Roy, PMM: A Novel Prediction Based VM Migration Scheme in Cloud Computing, 13th International Conference on Distributed Computing and Internet Technology (ICDCIT), pp 107-117, Bhubaneswar, Odisha, India, 2017.
94. Joy Dutta, Sarbani Roy, IoT-Fog-Cloud based Architecture for Smart City: Prototype of a Smart Building, 7th International Conference on on Cloud Computing, Data Science & Engineering, CONFLUCENCE, Noida, Uttar Pradesh, India, 2017.

#### **Sarbani Roy and Chandreyee Chowdhury**

95. Joy Dutta, Chandreyee Chowdhury, Sarbani Roy, Asif Iqbal Midya, Firoj Gazi, Towards Smart City: Sensing Air Quality in City based on Opportunistic Crowd-sensing, 18th International Conference on Distributed Computing and Networking (COMNET-IoT, ICDCN), Hyderabad, India.
96. Sayanti Mondal, Chandreyee Chowdhury, Sarbani Roy, Sumanta k. Deb, Sarmistha Neogy, Crash Failure Immune Offloading Framework, in 10th IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS 2016), Bangalore, India.
97. Joy Dutta, Firoj Gazi, Sarbani Roy, Chandreyee Chowdhury, AirSense: Opportunistic Crowd-Sensing based Air Quality monitoring System for Smart City, in IEEE Sensors, Orlando, FL, USA, 2016.

#### **Chandreyee Chowdhury**

98. J. Saha, C. Chowdhury, S. Biswas (2017) Patient Monitoring Framework for Smart Home using Smart Handhelds, in IEEE Proceedings of WiSPNET 2017, March 22-24, 2017.
99. J. Saha, C. Chowdhury, S. Biswas (2017) Device Independent Activity Monitoring using Smart Handhelds, in IEEE Proceedings of Confluence 2017: : Cloud Computing Data Science & Engineering.
100. M. Roy, C. Chowdhury, N. Aslam (2017) Designing an Energy Efficient WBAN Routing Protocol, in 9th International Conference on COMmunication Systems & NETworkS (COMSNETS 2017).
101. A. Mallick, C. Chowdhury, A. Saha (2016) Energy Efficient Routing Protocol for Ambient Assisted Living Environment with Multiple Sinks, in IEEE proceedings of 13th International IEEE India Conference (INDICON 2016), pp.1-6.
102. Ghosh, P Roy, C. Chowdhury, S. Bandyopadhyay (2016) An Ensemble of Condition based Classifiers for Indoor Localization, in IEEE proceedings of 10th IEEE International Conference on Advanced Networks and Telecommunications Systems, 2016.

#### **Chandreyee Chowdhury and Sarmistha Neogy**

103. A. Dutta, C. Chowdhury, S. Neogy (2016) Ant-AODV-VANET: A Bio-Inspired Routing Protocol for VANET, in Springer Proceedings of Fourth International Conference on “Emerging Research in Computing, Information, Communication and Applications” (ERCICA-16), July 29-30, 2016.
104. S. Sen, C. Chowdhury, S. Neogy (2016) Design of Cluster-Chain based WSN for Energy Efficiency, in IEEE Proceedings of 2nd International Conference on Applied and Theoretical Computing and Communication Technology (iCATccT - 2016), July 21-23, 2016.

## Debesh Das

105. Subrata Das, Soma Das, Adrija Majumdar, Parthasarathi Dasgupta and Debesh Kumar Das, "Delay estimates for Graphene nanoribbons: a novel measure of fidelity and experiments with global routing trees," *IEEE International Conference GLSVLSI*, 18-20 May, 2016, Boston, USA.
106. Debabani Chowdhury, Debesh K Das, Bhargab B Bhattacharya, and Tsutomu Sasao, "On the Inadmissible Class of Multiple-Valued Faulty-Functions under Stuck-at Faults," *IEEE 44th International Symposium on Multiple-Valued Logic (ISMVL 2016)*, Sapporo, Japan, May 2016.
107. Subrata Das, Parthasarathi Dasgupta, Petr Fiser, Sudip Ghosh, and Debesh Kumar Das, "A Rule-Based Approach for Minimizing Power Dissipation of Digital Circuits," *14th IEEE International Symposium on Design and Diagnostics of Electronic Circuits and Systems, DDECS2016*, 22-24 April, 2016, Belgrade, Serbia.
108. Debasis Pal, Abir Pramanik, Parthasarathi Dasgupta and Debesh Kumar Das, "Double Patterning Lithography (DPL)-Compliant Layout Construction (DCLC) with Area-Stitch Usage Tradeoff", *IEEE International Symposium on VLSI Design and Test*, 24-27 May, 2016, IIT Guwahati, India.
109. Debabani Chowdhury, Debesh K Das, Bhargab B Bhattacharya, and Tsutomu Sasao, "On the Properties of Root-Functions in Logic Circuits," *Proceedings of 12th International Workshop on Boolean Problems*, Freiberg, Germany, September, 2016.
110. Archi Bhattacharya and Debesh Kumar Das, "Recognition of Ragas of Hindustani Music Played on Harmonium," International Symposium on Frontiers of Research in Speech and Music (FRSM) 2016, Baripada, Orissa, India, November, 2016.
111. Arindam Banerjee and Debesh K Das, "A New ALU Architecture Design using Reversible Logic," *Proceedings of IEEE International Symposium on Embedded Computing and System Design (ISED 2016)*, Patna, India, December 2016.
112. Joyati Mondal and Debesh K Das, "Design for testability technique of reversible logic circuit based on exclusive testin," *8th IEEE International Workshop on Reliability Aware System Design and Test*, Mumbai, January, 2017.
113. Subrata Das, and Debesh K. Das, "A Technique to Construct Global Routing Trees for Graphene Nanoribbon (GNR)," *The 18th International Symposium on Quality Electronic Design (ISQED 2017)*, Santa Clara, USA, March 2017.

## 5. Collaborative Programmes:

### Ujjwal Maulik

Indian Institute of Chemical Biology, Kolkata, India

University of Ljubljana, Slovenia

University of Padoa, Italy

International Center for Theoretical Physics, Italy

### Nandini Mukherjee

Collaborative project titled "Remote Health: A Framework for Healthcare Services using Mobile and Sensor-Cloud Technologies" in which six institutions are participating and Jadavpur University is playing the lead role. Project is funded by ITRA, Media Lab Asia.

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### **Sudip Kumar Naskar**

Collaborative research with the following institutes:

1. Saarland University, Germany
2. German Research Center for Artificial Intelligence (DFKI), Germany
3. Universitat Politècnica de València, Spain
4. IIT Patna, India
5. IIIT Sri City, India
6. Microsoft Research India

### **Subhadip Basu**

- Collaborative research program with the Department of Electrical and Computer Engineering, University of Iowa, USA

### **Susmita Ghosh**

- Acting as **local coordinator** on behalf of Jadavpur University for Erasmus Mundus Action 2 Project **India for EU II** selected under EACEA 42/11 Lot 11 (URL: [www.india4eu.eu](http://www.india4eu.eu)), Funding Agency : European Union, Period: 15.07.2012 – 14.07.2016
- Acting as **local coordinator** on behalf of Jadavpur University for Erasmus+ Program (Coordinated by UPM, Madrid), Funding Agency : European Union, Period: 2016 onwards

## **6. Major Achievements:**

### **Sudip Kumar Naskar & Dipankar Das**

Awarded “Young Faculty Research Fellowship” under “Visvesvaraya PhD Scheme for Electronics & IT”, by Media Lab Asia, Ministry of Electronics and Information Technology, Govt. of India. Duration: 2016-2021.

### **Jamuna Kanta Sing**

- UGC Research Award 2014, Project Title: Development of Intelligent Methods for Person Tracking and Recognition in Surveillance Systems, Amount: Rs. 3,00,000.00 + Full Salary for 2 Years, Duration: 2014-2016.

### **Subhadip Basu**

- Received an honorary position as Research Scientist from Department of Electrical and Computer Engineering, University of Iowa, USA.
- Received Research Award from UGC, Govt. of India for 2016-2018
- Visiting Professor at LORIA, University of Lorraine, France, May-June, 2016.

### **Debotosh Bhattacharjee**

- EMINTE Fellowship from European Commission for Visiting Researcher at University of Ljubljana, Slovenia, 2016.

### **Nibaran Das**

- 3rd Excellence award in the International Document Information Processing School (IDIPS2016), Samos, Greece, 4-8 July, 2016



**Kamal Sarkar**

- **First Prize winner** in the *NLP tool contest on -POS TAGGING FOR CODE-MIXED INDIAN SOCIAL MEDIA TEXT*, held in conjunction with 13th International Conference on Natural Language Processing 2016(ICON 2016), held in IIT, BHU. (CRF- based POS tagging system performs the best among the 16 systems participated in the contest)

**Ujjwal Maulik**

Visited International Centre for Theoretical Physics (ICTP), Trieste, Italy as Senior Associate.

**List of Projects (Funding amount more than 10 Lakh):**

**PI: Nandini Mukherjee, Co-PI: Sarmistha Neogy**

Project Title: Remote Health: A Framework for Health-care Services using Mobile and Sensor-cloud Technologies (A collaborative project of **six** institutions)

Lead PI (for all institutions) - **Prof. Nandini Mukherjee**

Funded by Information Technology Research Academy, Media Lab Asia, Ministry of Electronics and Information Technology,(MeitY), Govt. of India, Fund allotted for Jadavpur University - 193.77 lakhs (Fund received so far - 156.63 lakhs)

**PI: Diganta Saha**

- Mobile and Innovative Computing Programme, “Cache Memory Management in Mobile Environment”, UGC funded “*University with Potential for Excellence - Phase II*” scheme of Jadavpur University, Amount 10.87 Lakh, July 2015 – March 2018

**PI: Kamal Sarkar**

- Design and Development of a System for Querying, clustering and Summarization for Bengali, Funding Agency-SERB under DST, Sanctioned Amount: 31,71,600/-, Duration: 4 years (2013 to 2017)

**PI: Debotosh Bhattacharjee, Co-PI: Mita Nasipuri**

- “Development of 3D Face Recognition Techniques Based on Range Images,” DEITY, MCIT, Govt. of India. Fund: INR 66.21 Lakh
- “Design and Development of Techniques for pain management and Breast Cancer detection using infrared imaging,” DBT, Govt. of India, Fund: INR 13.55 Lakh
- “Telemedicine Compatible Computerized Hemocytometer Analyzer for Dengue Detection and Treatment,” DBT, MST, Govt. of India, Fund: INR 23.64 Lakh

**PI: Jamuna Kanta Sing**

- 3D MRI brain image segmentation and visualization for therapy planning and monitoring from SERB, DST, GOI for 4 years (2016-2020), Fund: INR 2134000.

**PI:Nibaran Das, Co-PI: Mita Nasipuri**

Extra Mural Research Project, “Development of knowledge graph from images using Deep learning”, SERB, Govt. of India, Fund: INR 33 Lakh



**CONSTRUCTION ENGINEERING**  
**(SALT LAKE CAMPUS)**

Phone : +91-33-2335-5211  
Int. : 6-116  
H.O.D. : Prof. Subhajit Saraswati  
E-Mail : hod@const\_jusl.ac.in/ssaraswati@const.jusl.ac.in  
hodconstruction@jadavpuruniversity.in

**1. A. Courses Offered:**

Name of the Course : Bachelor of Construction Engineering  
Duration of Course : 4 Years  
No of Students Enrolled : 38

Name of the Course : M. E (Structural Repair & Retrofit Engineering)  
Duration of Course : 3 Years  
No of Students Enrolled : 18

**B. Number of Faculty**

Members (Permanent) : 08

**2. A. Area of Research Activities (Broad Areas):**

Structural Health Monitoring  
Non-destructive Evaluation and Restoration of Structures  
Geotechnical research with DMT/SDMT using  
TG63 PAGANI penetrometer  
Concrete Technology – High Performance Concrete  
Highway Engineering – Pavement Design

**3. A. Invited Lectures Delivered / Sessions Chaired:(Name of the Teacher /Type of Participants / Name of the Seminar/Conference /Place/Duration):**

1. Prof. P.P. Biswas was a Invited Speaker in a one day training for the auditors organized by AG (E & RS) on Adherence to Quality Control on Road works on 16<sup>th</sup> Dec 2016, at CGO Complex, Slat lake, Kolkata.
2. Prof. P.P. Biswas was aInvited Speaker on ‘Design and Evaluation of Highway Pavement’ in Brainware Engineering College on 5<sup>th</sup> May 2017.
3. Prof. P.P. Biswas was a Invited Speaker in a national seminar in NIT Agarpara on ‘Disaster Management’ on the topic Road Accident as Manmade Disaster’ on 30<sup>th</sup> March 2017.
4. Prof. P.P. Biswas was a Invited speaker as resource person in UGC HRDC on 8<sup>th</sup> Sept 2016 on the topic ‘Challenges of Urban transport infrastructure in Kolkata in relation to smart city concept’
5. Prof. S. Saraswati was a invited speaker at 7<sup>th</sup> Asian Concrete federation (ACF) Conference held at Hanoi, Vietnam between 30<sup>th</sup> October to 3<sup>rd</sup> November 2016 on the topic “Performance Assessment of Compressive Strength of Concrete : An engineering approach”
6. Prof. S. Saraswati was a invited speaker for training and orientation programme organized by ARKITECHNO for the engineering personnel (JEs/AEs/EEs) involved in the Social Infrastructure Projects under Non-PMGSY work for construction of sustainable infrastructure i.e. Model School, Roads and Bridges etc. in the rural areas of Odisha under the guidance of Rural Work Department, Odisha on 10.03.2017 at Berhampore, Odisha

7. Prof. Debasish Bandyopadhyay delivered invited lecture on “Earthquake Resistance Design & Construction of Structure” for training and orientation programme organized by ARKITECHNO for the engineering personnel (JEs/AEs/EEs) involved in the Social Infrastructure Projects under Non-PMGSY work for construction of sustainable infrastructure i.e. Model School, Roads and Bridges etc. in the rural areas of Odisha under the guidance of Rural Work Department, Odisha on 23.08.2017 at Bhubaneswar, Odisha
8. Prof. Debasish Bandyopadhyay delivered invited lecture on “An Alternative Low Cost Energy Efficient and Earthquake Resistant Building System to Reduce the Effect on Environment” in the National Seminar on Effect of Present Day Construction Industry on Environment on 10<sup>th</sup> June 2017, R. N. Mukherjee Hall, Institute of Engineers (I), Kolkata.
9. Prof. Debasish Bandyopadhyay delivered most of Lectures of the 14 Weekends Training Workshop on “Seismic Design & Construction of Residential Buildings” for the Tata Tiscon Field Engineers from 13<sup>th</sup> May to 12<sup>th</sup> August, 2017.
10. Prof. Debasish Bandyopadhyay delivered invited lecture on “Disaster Mitigation Engineering” for 2<sup>nd</sup> training programme for the engineering personnel (JEs/AEs/EEs) on ‘Quality Execution of Multipurpose Cyclone Shelters & Under Ground Cable Laying’ for National Cyclone Risk Mitigation Project – Phase II, under Department of Disaster Management, Govt. of West Bengal on 26.07.2017 at Spring Club, Kolkata organized by Arkitechno Consultant India Pvt. Ltd. Odisha.

**3. B. Seminar/Workshop/Conference/Symposium Attended :**

- **Prof. K. Bandyopadhyay** participated in the Geo-Chicago Conference held in Chicago, USA , August, 2016.
- **Prof. S. Saraswati** participated in the 7<sup>th</sup> Asian Concrete federation (ACF) Conference held at Hanoi, Vietnam between 30<sup>th</sup> October to 3<sup>rd</sup> November 2016.
- **Prof. Debasish Bandyopadhyay** was attended the International Conference for Meeting Infrastructure Challenge **ICI INFRACON 2017** organized by Indian Concrete Institute at Nagpur, 5-6 October 2017.
- **Prof. Debasish Bandyopadhyay** was attended the Seminar on “**Namami Ganga Yojona**”, organised by Jadavpur University Ex-Students’ Guild (Bidhannagar), KMDA Hall, Salt Lake, 19<sup>th</sup> August, 2017.
- **Prof. Debasish Bandyopadhyay** was attended the Seminar on “**Disaster Mitigation and Preparedness**”, organised by Jadavpur University Ex-Students’ Guild (Bidhannagar), KMDA Hall, Salt Lake, 16<sup>th</sup> July, 2016.

**3. C. Seminar/Conference Organized /Committee Members:**

- **Prof. Debasish Bandyopadhyay** is an **organizing Committee** member of IBC, WB State Centre for National Seminar on Effect of Present Day Construction on Environment, held at Kolkata on 10<sup>th</sup> June, 2017.
- **Prof. Debasish Bandyopadhyay** was the **Coordinator** and Organizing Committee member of the Seminar on “**Namami Ganga Yojona**”, organised by Jadavpur University Ex-Students’ Guild (Bidhannagar), KMDA Hall, Salt Lake, 19<sup>th</sup> August, 2017.
- **Prof. Debasish Bandyopadhyay** was the **Coordinator** and Organizing Committee member of the Seminar on “**Disaster Mitigation and Preparedness**”, organised by Jadavpur University Ex-Students’ Guild (Bidhannagar), KMDA Hall, Salt Lake, 16<sup>th</sup> July, 2016.

**Leadership in Professional Bodies:**

- **Prof. Debasish Bandyopadhyay** is the **Chairman, Indian Concrete Institute**, WB Centre is one of the **Governing Council Member**, Indian Concrete Institute from 2017 to till
- **Member of Organising Committee** of National Seminar on “Effect of Present Day Construction Industry on Environment” organised by Indian Building Congress (IBC), WB Centre, Kolkata, 10<sup>th</sup> June, 2017.

**4. B. Articles Published in Journals/ Conference Proceedings in the Year 2016-17**

**D. Chaudhuri, K. Bandyopadhyay, A. Majumder & A.K. Misra** (2016), “Heavy Metal Removal by Aquatic Plants and Its Disposal by Using As a Concrete Ingredient”, 2<sup>nd</sup> Indo-US Workshop on Establishing Linkages Between Geoenvironmental Practices and Sustainability, held in Chicago, USA during the month of August, 2016.

**Partha Pratim Biswas, Manoj Kumar Sahis, Dipesh Majumder, and Gokul Mandal** “Design of Low Volume Rural Roads with Unbound Granular Materials using Odemark’s Method” International Journal of Engineering Research & Technology (IJERT), Vol. 5 Issue 06, June-2016, DOI: <http://dx.doi.org/10.17577/IJERTV5IS060520> PP-404-408.

**Partha Pratim Biswas, Manoj Kumar Sahis, Dipesh Majumder, Chinmoy Seal and Gokul Mandal** “Characterization of Mastic Asphalt with Cold Mix” International Journal Of Scientific & Engineering Research, Volume 7, Issue 7, July-2016 931 ISSN 2229-5518 IJSER © 2016 ,PP-931-936.

**Partha Pratim Biswas, Manoj Kumar Sahis & Dipesh Majumdar**, “Determination Of Compacted Subgrade Thickness Using Mechanistic- Empirical Approach” A National conference on Fifteen Years of PMGSY ( FYPMGSY ) Organised by Transportation Engineering Group , Civil Engineering Department, IIT Roorkee, August, 6<sup>th</sup> -7<sup>th</sup> , 2016. PP-51

**Manoj Kumar Sahis & Partha Pratim Biswas**, “Comparative Deterministic and Probabilistic Analysis of Two Unsaturated Soil Slope Models after Rainfall Infiltration” Jordan Journal of Civil Engineering, Volume 11, No. 1, 2017, pp-142-148

**Dipesh Majumdar , Manoj Kumar Sahis, Nilratan Halder, Agnimitra Sengupta** “Flexural strengthening of RCC beam with carbon fibre wrapping” International Journal of Engineering Science and Technology (IJEST), ISSN : 0975-5462, Vol. 9 No.05 May 2017, PP-502-508.

**Manoj Kr. Sahis<sup>1</sup>, Sourav Halder<sup>2</sup>, Dipesh Majumdar<sup>3</sup>, Partha P. Biswas<sup>4</sup>, , Agnimitra Sengupta<sup>5</sup>** “Characterization of Bituminous Mix Using River Bed Materials” ISSN:231—8613. DOI: 10.21817/IJET/2017/v9i3/1709033112. Vol 9 no.3. Jun-Jul 2017. pp-1911-1916.

**D. Majumdar<sup>\*1</sup>, M.K Sahis<sup>\*2</sup>, G.C. Mandal<sup>\*3</sup>** “A Case Study on Rehabilitation of RCC Machine Foundation of a Cement Mill Structure” DOI: 10.21817/IJET/2017/v9i3/1709033112. Vol 9 no.3. Jun-Jul 2017. PP -1905-1910.

**Subrata Pal<sup>1</sup>, Manoj Kumar Sahis<sup>2</sup>, Partha Pratim Biswas<sup>3</sup>, Agnimitra Sengupta<sup>4</sup>, G.C. Mandal<sup>5</sup>** “Feasibility Study of Use of Recycled Aggregates in Road Pavement Construction.” International Journal of Engineering Science and Technology (IJEST), ISSN: 0975-5462, VOL 9 No. 06 Jun, 2017. PP-652-661.

**D. Majumdar<sup>\*1</sup>, M.K Sahis<sup>\*2</sup>, A.Karmakar<sup>\*3</sup>** “Evaluation technique for finding out stress level of existing brick masonry structure by Flat Jack Method “International Journal of Engineering Science and Technology (IJEST), ISSN: 0975-5462, VOL 9 No. 06 Jun, 2017.Pp-668-675.

**Partha Pratim Biswas, Manojkumar Sahis & S Sarkar**”Characterisation of River Bed Materials in use of Low Volume Rural Road Construction.”GraminSampark (December 2016) pp-3-6.

**Partha Paratim Biswas, Manoj Kumar Sahis, Dipesh Majumder, and Gokul Mandal**”A Mechanistic Empirical Design concept for Low volume Flexible Pavement using unbound granular Materials with application of Concentration factor in a Layered system.”Bearing Capacity of Roads, Railways and Airfields: Proceedings of the 10th International Conference on the Bearing Capacity of Roads, Railways and Airfields (BCRRA 2017), June 28-30, 2017, Athens, Greece, June 12, 2017 by CRC Press, Reference - 364 Pages, ISBN 9781138295957 - CAT# K35618

**Subhajit Saraswati, Dipesh Majumdar and Subrato Chowdhury**, “Performance Assessment of Compressive Strength of Concrete : An engineering approach” 7<sup>th</sup> Asian Concrete federation (ACF) Conference held at Hanoi, Vietnam between 30<sup>th</sup> October to 3<sup>rd</sup> November 2016

**D. Bandyopadhyay & J S Ali** (2017) “Modal Strain Energy Based Structural Parameter Identification from Limited Vibration Measurement”, 7<sup>th</sup> International Conference on ‘Experimental Vibration Analysis for Civil Engineering Structure (EVACES), 2017’, pp 714-724, ISSN 978-3-319-67443-8.

Tanvir Sohail, Sumit Saha, Dr. **Debasish Bandhyopadhyay** (2017), “Parameter Identification of Frame Structure by Noisy Limited Static Strain Data”, Indian Conference on Applied Mechanics (INCAM) 2017, MNIT Allahabad, 5 – 7 July 2017.

**D. Bandyopadhyay** (2017),”An Alternative Low Cost Energy Efficient and Earthquake Resistant Building System to Reduce the Effect on Environment”, National Seminar on ‘Effect of Present Day Construction Industry on Environment’, organized by Indian Building Congress at Institute of Engineers (I), Kolkata, 10<sup>th</sup> June, 2017.

**Debasish Bandhyopadhyay**, Sumit Saha & Tanvir Sohail (2017), “Identification of Parameter of Truss Structure by Limited Static Strain Measurement”, 10<sup>th</sup> Structural Engineering Convension (SEC 2016), SERC, Chennai & IIT Madras, 21-23 Dec., 2016.

## **5. Collaborative Programmes:**

**Prof. K. Bandyopadhyay** was selected by the Indian Geotechnical Society as one of the speakers on behalf of the Indian delegation to the the Second Indo-US Workshop on Sustainability and Geoenvironmentheld in Chicago, USA in the month of August, 2016.

## ELECTRICAL ENGINEERING

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### 1. A. Courses Offered:

Sl. No.	Course Name	Duration	No. of Students Enrolled
1.	B.E.E.	4 Yrs.	110
2.	B. E. E. (Evening)	5 Yrs.	45
3.	M. E. E.	2 Yrs.	25
4.	M. C. S. E.	2 Yrs.	18
5.	M.E. Illumination Engg.	2 Yrs.	18
6.	Ph.D.		15

## CONTROL SYSTEM SECTION

### 1. B. Number of Faculty Members: 03

### 2. A. Area of Research Activities:

Nonlinear Control  
Evolutionary Computing in Mobile Communication and Image Processing  
Formation Control

### 2. B. Major Research Project: (Name of the Project-Funding Agency-Coordinator/Investigator)

1. UPE-II: Devices and Systems: Generation of Software Requirement Specifications (SRS) for Real-Time Systems-UGC- Prof. Madhubanti Moitra – Principal Investigator
2. Design and development of a quadruped torso with electro-hydraulic power system for realization of an autonomous robot-CAIR-Prof. Madhubanti Moitra - Co-Investigator

### 3. A. Invited Lectures Delivered/Sessions Chaired: (Name of the Teacher-Type of Participants-Name of Seminar/ Conference-Place and Duration)

Madhubanti Maitra-Session Chaired- Gender Sensitization- Jadavpur University, Kolkata, One Day.

Madhubanti Maitra-Delivered a lecture on Introduction to Particle Swarm Optimization (PSO) Technique: A Popular Evolutionary Optimization tool-Heritage Institute, Kolkata, July, 2017

Madhubanti Maitra-Resource Person-Computer Control of Industrial Processes-JIS, Kalyani, April, 2016

Prof Smita Sadhu-Delivered an invited lecture on “Future Aspects of Computer Science and its applications”-FACSA 2016-Dept. of Comp. Sc. & Engineering, RCCIIT, Kolkata, 2016.

Prof Smita Sadhu–Session chaired–IEEE First International Conference on Control, Measurement and Instrumentation (CMI)–2016

**3. B. Seminar/Workshop/Conference/Symposium Attended: (Sl. No.–Name of the Teacher–Name of seminar/conference–Place and Duration)**

1. Madhubanti Maitra–NBA Workshop Organized under TEQIP-II Programme–ITC, Kolkata, 6-8 March, 2017
2. Madhubanti Maitra–Curriculum Revision and Industrial Feedback–EE Dept, JU.

**4. A. Books / Monographs etc. Published:(Name of the Teacher–Name of the Book–Name of the Publisher)**

Madhubanti Maitra,**Book:** Block Backstepping Design of Nonlinear State Feedback Control Law for Underactuated Mechanical Systems, Springer, Singapore, 2017

Madhubanti Maitra,**Book Chapter:** Particle Swarm Optimization Based Fast Chan-Vese Algorithm for Medical Image Segmentation, Metaheuristics for Medicine and Biology, Springer, Berlin, Heidelberg, pp 49-74, March, 2017

Smita Sadhu–**Book Chapter:** “Adaptive Nonlinear Information Filters for Multiple Sensor Fusion,” Lecture Notes in Electrical Engineering–Springer Verlag, 2016, vol. 383, pp. 371-390, DOI 10.1007/978-3-319-31898-1\_21.

**4. B. Articles Published/Accepted in Journals (April, 2016 – March, 2017):**

**International/National/Peer-reviewed Journals (Name of the Teacher–Name of the Articles–Name of the Journal–Date of Publication–Volume)**

1. Madhubanti Maitra –Design and implementation of a block-backstepping based tracking control for nonholonomic wheeled mobile robot –International Journal of Robust and Nonlinear ControlWiley,.– Sep, 2016 –Volume 26, Issue 14, pp 3018-3035,
2. Smita Sadhu –Designing disturbance observer for non-linear systems – a Hirschorn inverse approach –IET Science, Measurement & Technology –2017 –Volume: 11, Issue: 2, Pages: 164 - 170
3. Smita Sadhu – Improved Estimation and Fault Detection Scheme for a Class of Nonlinear Hybrid Systems using Time Delayed Adaptive Central Difference State Estimator – IET Signal Processing –2017 –DOI: 10.1049/iet-spr.2016.0380

**Conference Papers:**

**International**

1. D. Roy, Madhubanti Maitra and S. Bhattacharya, “Study of formation control and obstacle avoidance of swarm robots using evolutionary algorithms,” *2016 IEEE International Conference on Systems, Man, and Cybernetics (SMC)*, Budapest, pp. 003154-003159, October, 2016.
2. S Saha, S Rudra, T Dasgupta, Madhubanti Maitra, “Design of a novel adaptive variable structure control law for industrial heat exchanger process representing a class of non-minimum process plant”, in the *Proc. 2016 IEEE Uttar Pradesh Section International Conference on Electrical, Computer and Electronics Engineering (UPCON)*, 2016, December, 2016.
3. Sumita Goswami, S. Rudra and Madhubanti Maitra, “An Alternate Design of a Block Backstepping Control Law for Underactuated Mechanical Systems”, in *Proc. of National Conference on Recent Trends in Engineering and technology (NCRTET)*, 2017, March 2017.



4. Nirmal Murmu, Tasmita Saha, Sayantan Chakraborty and Madhubanti Maitra, "Stabilization of a Cart-Inverted Pendulum System using a Discrete-Time LTI Control Scheme", National Conference on 'Recent Trends in Engineering and Technology', NCRTE-2017, 17-18, March, 2017.
5. Nilanjan Patra, Smita Sadhu, T. K. Ghoshal, "Pragmatics For Estimator based Aircraft Tracking," *IEEE First International Conference on Power Electronics, Intelligent Control and Energy Systems*, (ICPEICES-2016), Delhi Technological University, Delhi, 4-6 July 2016.
6. Nilanjan Patra, Smita Sadhu, T. K. Ghoshal, "Adaptive State Estimation for Ballistic Object Tracking with Nonlinear Model and State Dependent Process Noise," *IEEE First International Conference on Power Electronics, Intelligent Control and Energy Systems*, (ICPEICES-2016), Delhi Technological University, Delhi, 4-6 July 2016.
7. Sabyasachi Mondal, Smita Sadhu, and Snehash Talukdar, "Platform Motion Disturbances Attenuation in a Missile Seeker Subsystem using Disturbance Observer Techniques," *10th IEEE International Conference on Intelligent Systems and Control (ISCO-2016)*, pp. 1-6, 2016.
8. Rudrashis Majumder, and Smita Sadhu, "Robust Extended Kalman Filter for Ballistic Object Tracking during Re-entry." *IEEE Annual India Conference (INDICON-2016)*, pp. 1-6, 2016

## 6. Major Achievements:

### Smita Sadhu

- Two doctoral students have been awarded PhD degree in 2017.
- Two doctoral theses have been submitted in 2017.
- Three Post Graduate theses have been awarded.

## MACHINES AND ELECTRIC DRIVES SECTION

### 1. B. Number of Faculty Members: 10

### 2. B. Major Research Project:

*(Name of the Project–Funding Agency–Coordinator/Investigator)*

1. A Wind-Solar Hybrid Microgeneration Scheme Suitable for Wide Speed Range and Grid-isolated Remote Applications–MNRE–Prof. (Dr.) Debashis Chatterjee-Principal Investigator

### 3. A. Invited Lectures Delivered/Session Chaired: *(Name of the Teacher–Type of Participants–Name of Seminar/ Conference–Place and Duration)*

Debashis Chatterjee–Resource Person.Integration of Sustainable Energy Sources and Smart Grid (ISESSG)–BIT, Meshra Deoghar campus, 20-24, March 2017.

Debashis Chatterjee–Resource Person–Harvesting Wind and Solar Energy- The Modern Trends Narula Institute of Technology, Agarpara, Kolkata March15, 2017

### C. Seminar/Workshop/Conference/Symposium Organized: *(Name of the Teacher–Name of seminar/conference–Place – Duration)*

Debashis Chatterjee– Application of Power Electronics in Power System: The Future Trend–JU, EE–One day(21<sup>st</sup> Sept, 2016)

**4. A. Books/Monographs etc. Published:** Debashis Chatterjee–Wiley Acing The GATE: Electrical Engineering–Wiley India Limited

**B. Articles Published in Journals**(*Name of the Teacher–Name of the Articles–Name of the Journal,–Date of Publication–Volume*)

- 1 S. Kundu, **D. Chatterjee**, K. Chakrabarty–Bifurcation behaviour of PWM controlled DC series motor drive.–International Journal of Robust and Nonlinear Control, Wiley, Volume 26, Issue 14, pp 3018-3035, Sep, 2016.IET Power Electronics–2017– vol. 10, no. 3, pp. 279-291
- 2 A. Parida, S. Choudhury, S. Chatterjee, **D. Chatterjee**–A cost effective trade-off based renewable power augmented energy efficient load model for manufacturing industries for demand side management–Cogent Engineering, Taylor & Francis– 2016 vol. 3 , no.1, pp. 1239299
- 3 A. Parida, **D.Chatterjee**–Cost effective utility-solar photovoltaic based hybrid scheme for institutional buildings: a case study–IET Gen. Tr. & Distribution–2016–vol. 11, no. 5, pp. 1102-1110
- 4 Y. Ch, **D.Chatterjee**, S. K. Goswami–Effect of network reconfiguration on power quality of distribution system–International Journal of Electrical Power & Energy Systems, Elsevier–2016–vol. 83, pp. 87-95
- 5 Y. Ch, **D. Chatterjee**, S. K. Goswami–An improved control scheme for on-load tap changers with reduced harmonics injection–Electric Power Components and Systems, Taylor & Francis–2016–vol. 44, no. 7, pp. 794-805
- 6 A. Parida, S. Choudhury, S. Chatterjee, **D. Chatterjee**–A rule based electrical energy distribution model for energy efficiency in technical institutions: A case study–Energy and Buildings, Elsevier–2016–vol. 126, pp. 508-516
- 7 S. Das, **D. Chatterjee**, S.K. Goswami–A GSA based modified svc switching scheme for load balancing and source power factor–IEEE Transactions on Power Delivery–2016–vol. 31, no. 5, pp. 2072-2082
- 8 A. Chatterjee, **D. Chatterjee**–Analysis and Control of PV assisted three phase induction machine operating as single phase micro wind generator–IET Gen. Tr. & Distribution– 2016 vol. 10, no. 9, pp. 2165-2176
- 9 A. K. Parida, **D. Chatterjee**–A solar PV augmented hybrid scheme for enhanced wind power generation through improved control strategy for grid connected doubly fed induction generator–Cogent Engineering, Taylor & Francis– 2016 vol. 3, no.1, pp. 1147337
- 10 A. K. Parida, **D. Chatterjee**–An improved control scheme for grid connected doubly fed induction generator considering wind-solar hybrid system–International Journal of Electrical Power & Energy Systems, –2016–vol.77, pp.112-122
- 11 T Nag, S Santra, A Chatterjee, **D. Chatterjee**, A.K. Ganguli–Fuzzy logic based loss minimization scheme for brushless DC motor drive system–IET Power Electronics –2016–vol. 9, no. 8, pp. 1581-1589
- 12 P.K. Gayen, **D. Chatterjee**, S.K. Goswami–A low-voltage ride-through capability enhancement scheme of doubly fed induction generator based wind plant considering grid faults–AIP Journal of Renewable and Sustainable Energy–2016–vol.8, no.2, pp. 025301
- 13 A. K. Parida, **D Chatterjee**–Cogeneration topology for wind energy conversion system using doubly fed induction generator–IET Power Electronics–2016–vol. 9, no. 7, pp. 1406-1415

- 14 S. Das, **D. Chatterjee**, S.K. Goswami–An Optimization Based Improved Switching Technique for Static VAR Compensator Considering Minimum Source Harmonic Injection–IET Power Electronics–2016–vol. 9, no. 7, pp. 1362-1373
- 15 P.K. Gayen, **D. Chatterjee**, S.K. Goswami–An improved low-voltage ride-through performance of DFIG based wind plant using stator dynamic composite fault current limiter–ISA Transactions, Elsevier –2016–vol. 62, pp. 333-348
- 16 A.K. Parida, **D. Chatterjee**–Model based loss minimization scheme for wind solar hybrid generation system using (grid connected) doubly fed induction generator improvement–IET Electric Power Application –2016–vol. 10, no. 6, pp. 548-559
- 17 S. Bhattacharya, P. Deb, Dr. S. K. Biswas and Dr. S. Kar Chowdhury–Performance and Design of an open-Delta Connected Grid Tied Bidirectional PWM Converter”, International Journal of Electrical Power & Energy Systems–ELSEVIER–2016–vol 78, pp 182-193
- 18 Katick Chandra Jana, Sujit K. Biswas, Suparna Kar Chowdhury–Dual Reference Phase Shifted Pulse Width Modulation Technique for a N-level Inverter Based Grid Connected Solar Photovoltaic System–IET Renewable Power Generation–2016–Vol. 1, pp. 1-8
- 19 Diptarshi Bhowmick, Mithun Manna and Suparna Kar Chowdhury–Estimation of Equivalent Circuit Parameters of Transformer and Induction Motor Using PSO Proceedings of PEDES 2016–2016–
- 20 Diptarshi Bhowmick, Mithun Manna and Suparna Kar Chowdhury–Online Estimation and Analysis of Equivalent Circuit Parameters of Three Phase Induction Motor Using Particle Swarm Optimization–Proceedings of PIICON 2016– 2016

**5. Collaborative Programe:**

Dr. Marcin Steczek, Assistant Professor, Lodz Technical University, Poland, participated in a collaborative program between Lodz Technical University and Jadavpur University for Post. Doctoral study under Erasmus Mundus Scheme for the period Sept 2016 to March 2017 under supervision of Dr. Debashis Chatterjee, Professor EE Department, JU on some studies on Traction Drive System.

**MESUREMENT AND INSTRUMENTATION SECTION**

**1. B. Number of Faculty Members: 07**

**2. A. Area of Research Activities:**

- Sensors and Transducers
- Process Instrumentation
- Intelligent Instrumentation and Control
- Signal Processing
- Image Processing
- Robotics and Artificial Intelligence
- Embedded Systems

**3. A. Invited Lectures Delivered/Session Chaired: (Name of the Teacher–Type of Participation–Name of Seminar/ Conference–Place and Duration)**

Sugata Munshi–Delivered an invited lecture on “ Brief Overview of Electronic Measuring Devices –Training programme on “Operation and Maintenance of Electrical and Electronic apparatus

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and Related safety Issues”–Electrical Engineering Department, Jadavpur University, 20<sup>th</sup> to 25<sup>th</sup> March, 2017

Sugata Munshi–Delivered an invited lecture on “ Embedded Sensorics”–“Recent Trends In Computational Science”–Electrical Engineering Department, Jadavpur University, 3<sup>rd</sup> & 4<sup>th</sup> March, 2017

Sugata Munshi–Chaired a session on “Measurements and Instrumentation”–1<sup>st</sup> International Conference on Advancement of Computer Communication and Electrical Technology , ACCET-2016–Murshidabad College of Engineering and Technology, Behrampur, October 21-22, 2016.

Sugata Munshi–Chaired a session on “Renewable Energy integration and Demand Management” by Dr. Prabodh Bajpai of IIT, Kharagpur.–“Shaping The Future of Indian Power Sector Through Renewable Energy” organized by Power Engg Deptt, JU under TEQIP.–Power Engg Deptt, JU, September 9 & 10, 2016.

Sugata Munshi–Chaired a session on “Recent Developments in Theoretical Physics” by Dr. Pallav Basu of TIFR– Invitation of the Contemporary Scene of Science to an Electrical Engineer” organized by Electrical Engg Deptt, JU under TEQIP.–Electrical Engg Deptt, JU, August 17, 2016.

Amitava Chatterjee (Title of Invited Lecture: An Introduction to Sensors and Transducers) –Undergraduate Students and Faculty Members–One day Seminar on “Recent Trends in Science and Technology”–Purulia Government Engineering College, Purulia, WB, India, 29 March, 2017

Amitava Chatterjee (Title of Invited Lecture: Fuzzy Systems and Fuzzy Control: From Theory to Implementation)–Undergraduate and Postgraduate Students, Research Scholars and Faculty Members–Two-day Seminar on “Computational Intelligence in Engineering Applications (CIEA-2017)” (Date of lecture: 23 March, 2017)–Electrical Engineering Department, Future Institute of Engineering and Management, Sonarpur, Kolkata, India (Duration: 23-24 March, 2017)

Amitava Chatterjee (Title of Invited Lecture: Sparse And Collaborative Representation for Palm Dorsa Vein Pattern Based Biometrics)–Undergraduate and Postgraduate Students, Research Scholars and Faculty Members–One-day Symposium on “Machine Learning and Its Applications”–Dept. of Computer Science and Engineering, National Institute of Technology, Durgapur, WB, India, 22 March, 2017

Amitava Chatterjee (Title of Invited Lecture: Brief Overview of Electrical Measuring Devices) –University StaffsOne week “Training Programme On Operation And Maintenance Of Electrical And Electronic Apparatus And Related Safety Issues” (Date of lecture: 20 March, 2017) Jadavpur University, Electrical Engineering Department, Kolkata, India (Duration: 20-26 March, 2017)

Amitava Chatterjee (Title of Invited Lecture: Ambient Assisted Living: Sensor and Signal Processing Perspectives)–Undergraduate and Postgraduate Students, Research Scholars, Faculty Members and participants from Industry– **Invited Expert Lecture** for National Conference on “Recent Trends in Engineering and Technology” (NCRTEET 2017) (Date of lecture: 17 March, 2017)– Tripura Institute of Technology, Tripura, India (Duration: 17-18 March, 2017)

Amitava Chatterjee (Title of Invited Lecture: An Introduction to Sensors and Transducers)–Undergraduate Students and Faculty Members–Short Term Course on “Fundamentals of Electronics & Quality Improvement Program, 2017”(Date of Lecture: 06 March, 2017)–Electronics and Communication Engineering Department, Narula Institute of Technology, Agarpara, Kolkata, India

Amitava Chatterjee (Title of Invited Lecture: Sparse And Collaborative Representation for Palm Dorsa Vein Pattern Based Biometrics)–Undergraduate and Postgraduate Students, Research Scholars and Faculty Members–Two-day Seminar on “Recent Trends in Computational Science” (Date of lecture: 04 March, 2017) –Electrical Engineering Department, Jadavpur University, Kolkata, India (Duration: 03-04 March, 2017)

Amitava Chatterjee (Title of Invited Lecture: Fuzzy Systems and Fuzzy Control: From Theory to Implementation)–Undergraduate Students and Faculty Members– Seminar on “Application of Soft Computational Techniques in Control System Application”–Electrical Engineering Department, Techno India College of Technology, Rajarhat, Kolkata, India, 22 December, 2016

Amitava Chatterjee (Title of Invited Lecture: Sparse And Collaborative Representation for Palm Dorsa Vein Pattern Based Biometrics)–Undergraduate and Postgraduate Students, Research Scholars, Faculty Members and participants from Industry –**Keynote Lecture** for International Conference on Advanced Computing and Intelligent Engineering (ICACIE 2016) (Date of Lecture: 21 December, 2016)–C. V. Raman College of Engineering, Bhubaneswar, Odisha (Duration: 21-23 December, 2016)

Amitava Chatterjee (Title of Invited Lecture: Computer Vision Based Autonomous Navigation Of Mobile Robots)–Undergraduate and Postgraduate Students, Research Scholars, Faculty Members and participants from Industry–Invited Talk organized by Institution of Engineers (India), Tripura State Centre, Agartala, India–Institution of Engineers (India), Tripura State Centre, Agartala, India, 26 November, 2016

Amitava Chatterjee (Title of Invited Lecture: Infrared Imaging of Hand Vein Pattern based Biometric Solution using Collaborative Representation Based Classification)–Undergraduate and Postgraduate Students, Research Scholars and Faculty Members–Invited Talk Organized by Electrical Engineering Department, National Institute of Technology Agartala, Tripura, India –Electrical Engineering Department, National Institute of Technology Agartala, Tripura, India, 25 November, 2016

Amitava Chatterjee (Title of Invited Lecture: Gravitational Search Algorithm: Theory and Applications)–Undergraduate and Postgraduate Students, Research Scholars and Faculty Members –Seminar on “Computational Optimization: Methods and Algorithms” (COMA-2016) (Date of Lecture: 22 November, 2016) –Departments of Mathematics and Information Technology, Heritage Institute of Technology, Kolkata (Duration: 22-23 November, 2016)

Amitava Chatterjee (Title of Invited Lecture: Infrared Imaging of Hand Vein Pattern based Biometric Solution using Collaborative Representation Based Classification)–Postgraduate Students, Research Scholars and Faculty Members–Workshop on “Recent Advances in Computational Intelligence” organized by IEEE CIS Kolkata Chapter, IEEE Kolkata Section and Indian Statistical Institute, Kolkata –Indian Statistical Institute, Kolkata, India, 22 November, 2016

Amitava Chatterjee (Title of Invited Lecture: Image Segmentation Algorithms: An Overview)–Postgraduate Students, Research Scholars and Faculty Members–5-day Tutorial cum Workshop on “Nano-materials and Devices for Biomedical Applications” organized by Center of Excellence in Systems Biology and Bio-medical Engineering and the Center for Research in Nanoscience and Nanotechnology, University of Calcutta (25 October, 2016) Technology Campus, University of Calcutta, Kolkata, India, (Duration: 24-28 October, 2016)



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Amitava Chatterjee (Title of Invited Lecture: Vision Based Robot Navigation: Conventional and Fuzzy Perspectives)–Faculty Members –Faculty Development Program (FDP) on “Modern Trends in Communication & Circuit Design, 2016 (MTCCD, 2KH)” (Date of Lecture: 17 October, 2016) Electronics and Communication Engineering Dept., Narula Institute of Technology, Agarpara, Kolkata, India, (Duration: 17-21 October, 2016)

Amitava Chatterjee (Title of Invited Lecture: Computer Vision Based Autonomous Navigation Of Mobile Robots)–Undergraduate and Postgraduate Students, Research Scholars, Faculty Members and participants from Industry–**Keynote Lecture** for 4<sup>th</sup> International Conference on Advanced Computing, Networking, and Informatics (ICACNI 2016) organized by Centre for Computer Vision and Pattern Recognition, National Institute of Technology Rourkela, Odisha (Date of Lecture: 23 September, 2016)–NIT Rourkela, Odisha, India (Duration: 22-24 September, 2016)

Amitava Chatterjee (Title of Invited Lecture: Infrared Imaging of Hand Vein Pattern based Biometric Solution using Collaborative Representation Based Classification)–Postgraduate Students, Research Scholars and Faculty Members –Workshop on “Soft Computing Driven Recent Advancement in Condition Monitoring of Electrical Equipment” (Date of Lecture: 21 September, 2016) –Department of Electrical Engineering, IEST, Shibpur, Howrah, India (Duration: 21-22 September, 2016)

Amitava Chatterjee (Title of Invited Lecture: Instrumentation Systems for Hand Vein Based Biometrics using Thermal Imaging)–Postgraduate Students, Research Scholars and Faculty Members –Special Invited Lecture Programme organized by Department of Electrical Engineering, National Institute of Technology, Meghalaya –Lecture Hall, NIT Meghalaya, Shillong, Meghalaya, 29 August, 2016

Amitava Chatterjee (Title of Invited Lecture: Computer Vision Based Autonomous Navigation of Mobile Robots)–Undergraduate Students and Faculty Members –National Seminar cum Workshop on “PLC in Real World” (ELECTRO 2016) organized by Electrical & Electronics Engineering (EEE) Dept., Pailan College of Management & Technology, Kolkata, WB –Pailan College of Management & Technology, Kolkata, WB, 27 August 2016

Amitava Chatterjee (Title of Invited Lecture: Dynamics and Control of Robot Manipulators) Undergraduate and Postgraduate Students, Research Scholars and Faculty Members Workshop on “Advances in Mechatronics, Rehabilitation Robotics and Embedded Systems” (AIMRES’16) (Date of Lecture: 17 August, 2016) Dept. of Mechanical Engineering, National Institute of Technology, Durgapur, WB (Duration: 12-17 August, 2016)

Amitava Chatterjee (Title of Invited Lecture: Bacterial Foraging Optimization and Its Application in Signal and Image Processing Problems)–Research Scholars and Faculty Members–A Workshop on “Evolutionary Optimization Techniques” (Date of Lecture: 07 July, 2016)–Dept. of Electrical Engineering, Heritage Institute of Technology, Kolkata, India (Duration: 07-12 July, 2016)

Amitava Chatterjee (Title of Invited Lecture: Synchronized Phasor Measurement: Challenges and Applications in the Smart Grid Era) Postgraduate Students, Research Scholars and Faculty Members Short Term Course on “Emerging Trends and Challenges of Modern Power Systems” (ETCMPS 2016) (Date of Lecture: 06 July, 2016) Dept. of Electrical Engineering, National Institute of Technology, Durgapur, WB (Duration: 05-09 July, 2016)



Amitava Chatterjee (Title of Invited Lecture: Instrumentation Systems for Hand Vein Based Biometrics using Thermal Imaging)–Undergraduate and Postgraduate Students, Research Scholars and Faculty Members –National Seminar on “Smart Systems in Energy, Control & Instrumentation”–Department of Electrical Engineering, JIS College of Engineering, Kalyani, 02 May, 2016

Amitava Chatterjee (Title of Invited Lecture: Infrared Imaging of Hand Vein Pattern Based Biometric Solution using Collaborative Representation Based Classification)–Undergraduate and Postgraduate Students, Research Scholars and Faculty Members–Expert Talk Programme at Department of Mathematics, I.I.T. (Roorkee), India–Department of Mathematics, I.I.T. (Roorkee), India, 25 April, 2016

Amitava Chatterjee (Title of Invited Lecture: An Introduction to Sensors and Transducers)–Undergraduate Students and Faculty Members–Expert Talk Programme at Electrical Engineering Department, Techno India College of Technology, Rajarhat, Kolkata, India –TechnoIndia College of Technology, Rajarhat, Kolkata, India, 20 April, 2016

Amitava Chatterjee (Role: Session Chair)–Undergraduate and Postgraduate Students, Research Scholars, Faculty Members and participants from Industry–1st International Conference on “Frontiers in Optimization: Theory and Applications” (FOTA 2016)–Heritage Institute of Technology, Kolkata, India, 24<sup>th</sup> November, 2016

Amitava Chatterjee (Role: Session Chair) (Title of the Session: Electronics & Communication Engineering)–International Conference on Computational Advancement in Applied Science & Engineering (IC2A2SE-2016)–Narula Institute of Technology, Agarpara, Kolkata, India, 5<sup>th</sup> October, 2016

Debangsh Dey Title of the talk: “LabView for Real-Time Applications: A case Study”–Undergraduate and Postgraduate Students, Research Scholars, Faculty Members–2 day Workshop on ‘Virtual Instrumentation’ in LabVIEW Platform–Department of Electrical Engineering, IEST, Shibpur on 9-10th September, 2016

Debangsh Dey Title of the talk: “**Trends and Challenges in Condition Monitoring of Power Transformers**”–Undergraduate and Postgraduate Students, Research Scholars, Faculty Members–2 day Workshop on “Soft Computing Driven Recent Advancement in Condition Monitoring of Electrical Equipment–Department of Electrical Engineering, IEST, Shibpur on 21-22th September, 2016

Debangsh Dey Title of the talk: “Application of Rough Set Theory based Feature Optimization for Condition Monitoring of Electrical Systems”–Undergraduate and Postgraduate Students, Research Scholars, Faculty Members–2 day Seminar on “Application of Soft Computing Techniques in Power System Optimization–Techno India College of Technology, Kolkata on 21.12.2016

Debangsh Dey Title of the talk: “Embedded Systems and Internet of Things (IoT)”–Undergraduate and Postgraduate Students, Research Scholars, Faculty Members–IET Sponsored 1 Week Course on “Embedded System based IoT–Techno India College of Technology, Salt-lake, Kolkata on 3<sup>rd</sup> October, 2016

Debangsh Dey Title of the talk: “Smart Phone based Measurement techniques”–Undergraduate and Postgraduate Students, Research Scholars, Faculty Members–One day Seminar organized by Electrical and Electronics Engineering Department of **Pailan College of Management &**

**Technology, Kolkata**–One day Seminar organized by Electrical and Electronics Engineering Department of **Pailan College of Management & Technology, Kolkata** on March 10, 2017.

Debangsh Dey Title of the talk: Sensors and Transducers–Technical Staffs–“Six-day training programme on Operation and Maintenance of Electrical and Electronic Apparatus and Related Safety Issues”–Department of Electrical Engineering Jadavpur University under TEQIP Phase II from 20-26 March 2017.

Palash Kumar Kundu –UG students of Electronics and Instrumentation Engineering –Special Lectures delivered on “**Sensors & Process Instrumentation**” under Value Added Training program organized by Netaji Subhas Engineering College, Garia –Garia ,February 20 – 24, 2017

Palash Kumar Kundu–Technical staffs–Lectures delivered on Cathode Ray Oscilloscope and Programmable Logic Controller under training programme on Operation & Maintenance of Electrical & Electronic Apparatus and Related safety Issue –Electrical Engg , Jadavpur University ,20-26<sup>th</sup> March’2017.

**B. Seminar/Workshop/Conference/Symposium Attended: (Name of the Teacher–Name of Seminar/Conference–Place and Duration)**

1. Gautam Sarkar–Workshop on “Recent Trends in Signal Processing”–Jadavpur University, Two Days
2. Gautam Sarkar–Short Term Course on “Smart Grid”–CPRI, Bengaluru, Five Days
3. Gautam Sarkar–Workshop on “Advanced Robotics”–Knowledge Incubation for TEQIP, IIT Kanpur, Five Days
4. Gautam Sarkar–Seminar on “Invitation of the Contemporary Science of Science to an Electrical Engineer”–Jadavpur University, One Day
5. Gautam Sarkar–Hands-on workshop on Real Time Interfacing using Matlab, Simulink and Guide for Process Control Applications–Department of Instrumentation and Control Engineering, Manipal Institute of Technology, Four Days
6. Gautam Sarkar–Workshop on “Control Techniques and Applications”–Knowledge Incubation for TEQIP, IIT Kanpur, Five Days
7. Gautam Sarkar–Workshop on “Advanced Sensors and Actuators”–Knowledge Incubation for TEQIP, IIT Kanpur, Four Days
8. Gautam Sarkar–National Symposium on “Internet of Things: Trends and Opportunities Ahead, NSIoT” –Electrical Engineering Department, Jadavpur University, Two Days
9. Gautam Sarkar–National Workshop on “Internet of Things for Industrial Applications”–SSN College of Engineering, Kalavakkam, Three Days
10. Gautam Sarkar–Workshop on “Power Quality (PQ) challenges with RE integration in Smart Grid”–CPRI, Bengaluru, Two Days
11. Palash Kumar Kundu–Hands-on workshop on Real Time Interfacing using Matlab, Simulink and Guide for Process Control Applications–Department of Instrumentation and Control Engineering, Manipal Institute of Technology, Four Days

12. Palash Kumar Kundu–Workshop on “Control Techniques and Applications”–Knowledge Incubation for TEQIP, IIT Kanpur, Five Days

**C. Seminar/Workshop/Conference/Symposium Organized:(Name of the Teacher–Name of Seminar/Conference–Place)**

1. Amitava Chatterjee (Role: Member of Steering Committee) –2016 IEEE International Conference on Imaging Systems and Techniques (IST 2016) organized by IEEE Instrumentation and Measurement Society and TC 19 Technical Committee on Imaging Systems–Crete Island, Grece
2. Amitava Chatterjee (Role: Track Chair, “Control and Systems” track)–11th IEEE Conference on Industrial Electronics and Applications (ICIEA 2016) organized by IEEE Industrial Electronics (IE) Chapter, Singapore Section, and Anhui University, China–Hefei, China
3. Amitava Chatterjee (Role: Associate TPC Chair)–2016 IEEE International Instrumentation and Measurement Technology Conference (I2MTC 2016) organized by IEEE Instrumentation & Measurement Society –Taipei, Taiwan

**D. Orientation Courses/Refresher Courses Attended: (Name of the Teacher–Title of the Course–Place – Duration)**

Debangshu Dey–64<sup>th</sup> Orientation programme organized by UGC-Academic Staff College at Jadavpur University, from February 6, 2017 to March 4, 2017.–Jadavpur University – February 6, 2017 to March 4, 2017

**4. A. Books/Monographs etc. Published:(Name of the Teacher–Name of the Book–Name of the Publisher)**

Madhusree Kundu, **Palash Kumar Kundu**, Seshu K. Damarla “Chemometric Monitoring: Product Quality Assessment, Process Fault Detection, and Applications.” CRC Press , Taylor & Francis group ( In press) To be published on October 4, 2017

**4. B. Articles Published in Journals: (Name of the Teacher–Name of the Articles–Name of the Journal –Date of Publication–Volume)**

1. Sandip Joardar, **Amitava Chatterjee**, Sanghamitra Bandyopadhyay and Ujjwal Maulik–Multi-size patch based collaborative representation for palm dorsa vein pattern recognition by enhanced ensemble learning with modified interactive artificial bee colony algorithm–*Engineering Applications of Artificial Intelligence* (Current Impact Factor: 2.894)–Accepted for publication
2. Pranibesh Mandal, Rana Saha, Saikat Mookherjee, **Amitava Chatterjee**, and Dipankar Sanyal –Lessons learned from using some bio-inspired optimizers for real-time controller design for a low-cost electrohydraulic system–*Applied Soft Computing* (Current Impact Factor: 3.541)– November 2016–vol. 48, pp. 638-649
3. Sayan Banerjee and **Amitava Chatterjee**–Image set based ear recognition using novel dictionary learning and classification scheme–*Engineering Applications of Artificial Intelligence* (Current Impact Factor: 2.894)–October 2016–vol. 55, pp. 37-46
4. Sandip Joardar, **Amitava Chatterjee**, and Anjan Rakshit–Real-Time imaging of palm dorsa subcutaneous vein pattern based biometrics: A sparse representation based classification approach –*IEEE Instrumentation & Measurement Magazine* (Current Impact Factor: 1.438)–April 2016 –vol. 19, issue 2, pp. 13-19

5. Arpan Kumar Pradhan, Biswendu Chatterjee, **Debangshu Dey** and Sivaji Chakravorti–Time Growing Frequency Sweep Signal based Insulation Condition Monitoring in Frequency Domain Spectroscopy”, –IEEE Transactions on Dielectrics and Electrical Insulation–2016 –Volume: 23, Issue: 4, pp. 1898 - 1906.
6. Subrata Biswas; **Debangshu Dey** ; Biswendu Chatterjee ; Sivaji Chakravorti,–“Cross-spectrum Analysis based Methodology for Discrimination and Localization of Partial Discharge Sources using Acoustic Sensors” –IEEE Transactions on Dielectrics and Electrical Insulation – 2016–Volume: 23, Issue: 6, 2016, pp. 3556 - 3565.

#### International/National Conferences:

1. Debasis Maji, Arghya Bhattacharya, Indranil Dey, Mainak Biswas, Tushar Kanti Mondal and **Gautam Sarkar**, “MAGLEV System Modeling and LQR Controller Design in Real Time Simulation” Proceedings of International conference WiSPNET2016, Sri Sivasubramaniya Nadar College of Engineering, Chennai, India, March 23 to 25, 2016.
2. Subhra J. Sarkar, Palash K. Kundu and **Gautam Sarkar**, “Comparison of the performance of DCSK for PLCC with and without data compression” International Conference on Intelligent Control Power and Instrumentation (ICICPI), October 21-23, 2016, Kolkata, India.
3. Subhajit Bhowmick, Palash Kumar Kundu and **Gautam Sarkar** “Synthesis of ECG Waveform using Simulink Model” International Conference on Intelligent Control Power and Instrumentation (ICICPI), October 21-23, 2016, Kolkata, India.
4. Santanu Chattopadhyay, **Gautam Sarkar** and Arabinda Das “Spider and Histogram Assessment of Electrocardiogram for Apnea Diagnosis”, The 10th International Conference MSAST 2016, December 21-23, 2016, Kolkata, India.
5. Ankita Chatterjee ; Mainak Biswas ; Debasis Maji ; Debashis Jana ; Subhajit Brojabasi ; **Gautam Sarkar** ; Ayoshna Saha ; Arnab Kumar Saha ; Allama Hossain ; Sampriti Podder ; Sanchari Das ; Ankhi Bhattacharya, “Discrete Wavelet Transform based V-I image fusion with Artificial Bee Colony Optimization”, 2017 IEEE 7th Annual Computing and Communication Workshop and Conference (CCWC) January 9-11, 2017, Las Vegas, USA.
6. Mita Pal, **Gautam Sarkar**, Ranjit Kumar Barai and Tamal Roy, “ Model Reference Adaptive Control of unstable system with different Reference Models”, Proceedings of First International Conference on Advances in Science and Technology (icast 2017), Kolkata, India, 17-19 March, 2017.
7. Subhra J. Sarkar, Palash K. Kundu and **Gautam Sarkar**, “DBEA: A Novel Approach of Repetitive Data Array Compression for Power System Application” Proceedings of 2<sup>nd</sup> International Conference for Convergence in Technology (I2CT 2017), Pune, India 7-9 April, 2017.
8. **Palash Kundu** , Madhusree Kundu, “Classification of tea samples using SVM as machine learning component of E-tongue” Proceedings of 1<sup>st</sup> of International Conference on Intelligent Control Power and Instrumentation (ICICPI-2016 ), RCCIT, Kolkata , India 21-23 Oct. 2016 , DOI: 10.1109/ICICPI.2016.7859673.
9. A. Tudu , **P. Kundu**, “Simulation of negative phase sequence relay based on phase sensitive rectification”, Proceedings of 3<sup>rd</sup> of International Conference on Computational Intelligence & Communication Technology (CICT-2017) , ABES Engg. College, Gaziabad, India 9-10 Feb. 2017, DOI: 10.1109/CICT.2017.7977383.

**6. Major Achievements:**

- Amitava Chatterjee served as a Member of “IEEE Transactions on Instrumentation and Measurement (TIM)’s Best Paper Award Committee” in 2017.
- Amitava Chatterjee was adjudged “Outstanding Associate Editor of IEEE Transactions on Instrumentation and Measurement” in 2016.
- Amitava Chatterjee continues to serve as an Editor of *IEEE Transactions on Vehicular Technology*.
- Amitava Chatterjee continues to serve as an Associate Editor of *IEEE Transactions on Instrumentation and Measurement*.
- Amitava Chatterjee continues to serve as an Associate Editor of *IEEE Sensors Journal*.
- Amitava Chatterjee continues to serve as an Editor of *Engineering Applications of Artificial Intelligence Journal*, Elsevier Publishers.
- Amitava Chatterjee continues to serve as an Associate Editor of *Control Engineering Practice*, Elsevier Publishers.

**POWER SYSTEM SECTION**

**1. B. Number of Faculty Members: 06**

**2. A. Area of Research Activities:**

**B. Major Research Project:(Name of the Project–Funding Agency–Coordinator/Investigator/Faculty members involved)**

1. DST PURSE Program Phase-I on “Smart Grid”–DST–Prof Subrata Paul, Sri. Ayan Kumar Tudu
2. DST PURSE Program Phase-II on “Condition Monitoring of Electrical Systems”–DST–Prof. Swapan Kr. Goswami, Dr. Sunita Halder nee Dey, Sri. Ayan Kumar Tudu

**3. A. Invited Lectures Delivered/Session Chaired: (Name of the Teacher–Type of Participants–Name of Seminar/ Conference–Place and Duration)**

Prof. Subrata paul–Invited Lecturer– CESC Ltd.–Jadavpur University, 2hrs

Prof. S. K. Goswami–Invited Lecturer–CESC Ltd.–Jadavpur University, 2hrs

Dr. Sunita Halder nee Dey– Invited Lecturer–CESC Ltd.– Jadavpur University, 2hrs

Sri. Ayan Kumar Tudu–Invited Lecturer–CESC Ltd.–Jadavpur University, 2hrs

Dr. Sunita Halder nee Dey– Invited Lecturer–Side-track event –‘Using OPAL/RT for Power Systems Simulation’, SKILL@Ju–Jadavpur University on March 22, 2017

Sri. Ayan Kumar Tudu–Invited Lecturer– Side-track event –‘Using OPAL/RT for Power Systems Simulation’, SKILL@Ju–Jadavpur University on March 22, 2017

Ms. Madhumita Mandal–Invited Lecturer– Side-track event –‘Using OPAL/RT for Power Systems Simulation’, SKILL@Ju–Jadavpur University on March 22, 2017

Prof. S. K. Goswami–Invited Lecturer–Training program on operation and maintenance of Electrical and Electronic Apparatus and related safety issues–Jadavpur University, 1hr



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Dr. Sunita Halder nee Dey– Invited Lecturer–Training program on operation and maintenance of Electrical and Electronic Apparatus and related safety issues–Jadavpur University, 1hr

Sri. Ayan Kumar Tudu–Invited Lecturer–Training program on operation and maintenance of Electrical and Electronic Apparatus and related safety issues–Jadavpur University, 1hr

Dr. Sudipta Debnath–Invited Lecturer on ‘Power Quality Detection and Classification’–Advancement in Power Engineering & Popular Electrical Drives in Robotics–B.P. Poddar Institute of Management & Technology on 13.08.2016

Dr. Sunita Halder nee Dey–Load flow and related Power system problems: Programming issues.–Evolutionary Optimisation Techniques–Heritage Institute of Technology,Kolkata, on 08.07.2016

Sri. Ayan Kumar Tudu–Invited Lecturer–NEILIT–Jadavpur University, 1hr

Prof. S. K. Goswami–Invited Lecturer–Role of Microgrid in smart grid–BIT, Deoghar

Prof. S. K. Goswami–Invited Lecturer–Optimization techniques for power system – T e c h n o India Rajarhat

Prof. S. K. Goswami–Invited Lecturer–Recent trends in power system–TIT, Agartala

**B. Seminar/Workshop/Conference/Symposium Attended: (Name of the Teacher–Name of the Paper Presented–Name of Seminar/ Conference/ Workshop–Place and Duration)**

Prof. Subrata Paul and Dr. Sunita Halder nee Dey–Siting and sizing of DG to maximize the reduction in loss in distribution network in the presence of harmonics injected by DG–3rd International Conference on Electrical, Electronics, Engineering Trends, Communication, Optimization and Sciences (EEECOS)–1st - 2nd June, 2016

Prof. Subrata Paul and Dr. Sunita Halder nee Dey–A novel literature approach for optimal sizing of distributed generation units for loss minimization in distribution network’–International Conference on Electrical, Electronics and Communication Engineering (ICEECE–26th November, 2016

**C. Seminar/Workshop/Conference/Symposium Organized: (Name of the Teacher–Name of Seminar –Place and Duration)**

Dr. Sudipta Debnath–‘Application of Power Electronics in Power System: The Future Trend’–21st September, 2016 Jadavpur University

Dr. Sunita Halder nee Dey–Application of Power Electronics in Power System: The Future Trend’–21st September, 2016 Jadavpur University

Sri. Ayan Kumar Tudu–‘Invitation of the Contemporary Scene of Science to an Electrical Engineer’–17<sup>th</sup> August, 2016Jadavpur University–21st September, 2016Jadavpur University

**D. Orientation Courses/Refresher Courses Attended: (Name of the Teacher –Title of the Course–Place –Duration)**

Ms. Madhumita Mandal–61st Orientation Programme–Jadavpur University–June 13, 2016 to July 11, 2016

Sri. Ayan Kumar Tudu–63rd Orientation Programme–Jadavpur University –November 15, 2016 – December 12, 2016



**4. B. Articles Published in Journals: (Name of the Teacher–Name of the Article–Name of the Journal –Date of Publication–Volume)**

S.K. Goswami – An Improved Control Scheme for On-load Tap Changers with Reduced Harmonics Injection’–Electric Power Components and Systems–April, 2016,–vol. 44 (7), pp. 794-805

S.K. Goswami–Optimal Location of Unified Power Quality Conditioner in Distribution System for Power Quality Improvement–International Journal of Electrical Power & Energy Systems–December, 2016–vol. 83, pp. 309-324,

Swapan Kumar Goswami, Dr. Sudipta Debnath–Wavelet-based technique for identification of harmonic source in distribution system–International Transactions on Electrical energy Systems, Wiley–December 2016–Vol. 26. Issue 12, Pp. 2552-2572.

S.K. Goswami–Effect of network reconfiguration on power quality of distribution system–International Journal of Electrical Power & Energy Systems–December 2016–vol. 83, pp. 87-95

Swapan Kumar Goswami and Dr. Sudipta Debnath–Harmonic Source Identification in Distribution System using Nonactive Power–International Journal of Power and Energy Conversion, Inderscience Publishers–2017–Vol. 8, No. 1, Pp. 90-111.

S.K. Goswami, –‘DTCWT based approach for power quality disturbance recognition’ Computer, –Communication and Electrical Technology, Taylor & Francis Group–2017Pages 209–214

Subrata Paul, and Sunita Halder Nee Dey–Elimination of Partial Overloading of Generators Under Unbalanced Operating Conditions of Power Systems–CSEE Journal of Power and Energy Systems–April 2016,–vol. 2, no. 1, pp.81-87

## **HIGH VOLTAGE ENGINEERING SECTION**

**1. B. Number of Faculty Members: 05**

**2. A. Area of Research Activities:**

- a) Condition monitoring of large Transformers, Insulators, Lightning Arresters etc.
- b) Power quality event detection and Smart metering.
- c) Computer aided design and optimization of insulation systems.
- d) Numerical field computations.
- e) Signal conditioning in high voltage systems.
- f) Partial discharge measurements and instrumentation.
- g) Identification of transformer insulation failure.

**2. B. Major Research Projects: (Project –Funding Agency–Sanction Amt.(INR in Lakhs)–Principal/Co-Principal Investigator–Status)**

1. Feasibility Study on the use of Bio-degradable Oils as Transformer Insulation–DST (GOI) SERB –19–Dr. Sovan Dalai–Ongoing

2. An advanced method for insulation condition monitoring using accelerated dielectric response measurement–DST (GOI) SERB– 54– Dr. Biswendu Chatterjee and Dr. Sovan Dalai–Ongoing
3. FIST-2014–DST (GOI) FIST–180–Dr. Kesab Bhattacharya–Ongoing

**3. A. Invited Lectures Delivered/Session Chaired : (Name of the Teacher–Type of Participants– Name of the Seminar/ Conference–Date and Venue**

1. Dr. Biswendu Chatterjee–Academicians, Researchers and Graduate Students–Computational & Simulation Tools (CAST) in Electrical Engineering–St. Thomas College of Engineering & Technology, Kolkata, West Bengal, on June 22, 2017.
2. Dr. Sovan Dalai–Academicians, Researchers and Graduate Students–Computational & Simulation Tools (CAST) in Electrical Engineering–St. Thomas College of Engineering & Technology, Kolkata, West Bengal, on June 22, 2017.

**C. Seminar/Workshop/Conference/Symposium Organized: (Name of the Teacher–Name of Seminar/Conference–Place– Duration)**

1. Sovan Dalai (Role: Member of Organizing Committee)–One day seminar on “Curriculum Revision and Feedback from Industries”–Department of Electrical Engineering, Jadavpur University, India –March 22, 2017
2. Sovan Dalai (Role: Member of Advisory Committee)– One day seminar on “Safety and Protection of Electrical Equipment and Systems”–Department of Electrical Engineering, Jadavpur University, India–September 10, 2016
3. Sovan Dalai (Role: Convener of Organizing Committee)–One day seminar on “Invitation of the Contemporary Scene of Science to an Electrical Engineer”–Department of Electrical Engineering, Jadavpur University, India–August 17, 2016
4. Biswendu Chatterjee (Role: Member of Organizing Committee)– One day seminar on “Invitation of the Contemporary Scene of Science to an Electrical Engineer”–Department of Electrical Engineering, Jadavpur University, India–August 17, 2016

**D. Orientation Courses/ Refresher Courses Attended:**

B. Chatterjee, has attended UGC Sponsored 64th Orientation Program held during 6<sup>th</sup> Feb. to 4<sup>th</sup> March, 2017, (24 days) organized by HRDC, Salt Lake Campus, Jadavpur University, Kolkata -700098, West Bengal.

**4. B. Articles Published/Accepted in Journals (April, 2016 – March, 2017): International/National/Peer-reviewed Journals**

1. R. Ghosh, B. Chatterjee and S. Chakravorti, “A Novel Leakage Current Index for the Field Monitoring of Overhead Insulators under Harmonic Voltage”, **IEEE Transactions on Industrial Electronics**, Paper No. 17-TIE-0527, Accepted for Publication.
2. N. Haque, B. Chatterjee, S. Chakravorti and S. Dalai, “Studies on the Effect of Temperature on the Charge Trapping and De-trapping Processes of Polymeric Insulators through Depolarization Current Measurements”, **IEEE Transactions on Dielectrics and Electrical Insulation**. Vol. 24, Iss. 3, pp. 1896-1904, 2017.
3. N. Haque, B. Chatterjee, S. Chakravorti and S. Dalai, “Investigations on Charge Trapping and De-trapping Properties of Polymeric Insulators through Discharge Current Measurements”, **IEEE Transactions on Dielectrics and Electrical Insulation**. Vol. 24, Iss. 1, pp. 583-591, 2017.

4. R. Ghosh, B. Chatterjee and S. Dalai, "A Method for the Localization of Partial Discharge Sources using Partial Discharge Pulse Information from Acoustic Emissions", **IEEE Transactions on Dielectrics and Electrical Insulation**, Vol. 24, Iss. 1, pp. 237-245, 2017.
  5. Apu Banik, Abhik Mukherjee and S. Dalai, "Development of a Pollution Flashover Model for 11kV Porcelain and Silicon Rubber Insulator by Using COMSOL Multiphysics", *Electrical Engineering Journal*, **Springer**, Paper DOI 10.1007/s00202-017-0520-8
  6. S. Chatterjee, A.K. Pradhan, S. Dalai, B. Chatterjee and S. Chakravorti, "Reducing Frequency Domain Spectroscopy Measurement Time for Condition monitoring of Oil-Paper Insulation using Non-sinusoidal Excitations", **IET Science, Measurement & Technology**, Vol. 11, Iss. 2, pp. 204-212, 2017.
  7. A. K. Pradhan, B. Chatterjee and S. Chakravorti, "Estimation of Dielectric Dissipation Factor of Cellulosic Parts in Oil-paper Insulation by Frequency Domain Spectroscopy", **IEEE Transactions on Dielectrics and Electrical Insulation**, Vol. 23, no. 5, pp. 2720-2729, 2016.
  8. A. Banik, S. Dalai, B. Chatterjee, "Autocorrelation aided Rough Set Based Contamination level prediction of High Voltage Insulator at Different Environmental Condition", **IEEE Transactions on Dielectrics and Electrical Insulation**, Vol. 23, no. 5, pp. 2883-2891, 2016.
  9. A. K. Pradhan, S. Chatterjee, A. Banik, S. Dalai and B. Chatterjee, "Condition Assessment of Outdoor Porcelain Insulator based on Dielectric Dissipation Factor Evaluated from Non-linear Equivalent Circuit", **IET Science, Measurement & Technology**, Vol. 10, no. 8, pp. 866-873, 2016.
  10. A. K. Pradhan, B. Chatterjee, D. Dey and S. Chakravorti, "Time Growing Frequency Sweep Signal based Insulation Condition Monitoring in Frequency Domain Spectroscopy", **IEEE Transactions on Dielectrics and Electrical Insulation**, Vol. 23, no. 4, pp. 1898-1906, 2016.
  11. A. K. Pradhan, C. Koley, B. Chatterjee and S. Chakravorti, "Determination of Optimized Slope of Triangular Excitation for Condition Assessment of Oil-paper Insulation by Frequency Domain Spectroscopy", **IEEE Transactions on Dielectrics and Electrical Insulation**, Vol. 23, no. 3, pp. 1303-1312, 2016.
  12. R. Ghosh, B. Chatterjee and S. Chakravorti, "A Method for Unambiguous Identification of On-Field Recorded Insulator Leakage Current Waveforms Portraying Electrical Activity on the Surface", **IEEE Transactions on Dielectrics and Electrical Insulation**, Vol. 23, No. 4, pp. 2156-2164, 2016.
5. **Collaborative Programmes:**
- Student exchange with university of Applied Sciences, Augsburg, Germany.

### ILLUMINATION ENGINEERING SECTION

1. **B. Number of Faculty Members: 4 (3 Permanent + 1 Contractual)**

2. **A. Area of Research Activities: (Broad areas):**

Light wave communication

Laser application

Road lighting design in Indian context  
Facad Lighting  
Sports Lighting  
Colour mixing with LEDs  
Ballast- Igniter -Lamp characteristics  
Lamp-life estimation  
Development of energy efficient low-cost lighting control system,  
Human powered Battery charger for LED based lighting system  
Rural lighting system design & development  
Daylight integrated artificial lighting  
Smart Lighting for interior and exterior

**B. Major Research Project:(Name of the Project- Funding Agency-Coordinator/Investigator/ Faculty Members involved)**

1. Data Transmission system using low power Modulated LASER beam through air - T E Q I P , Grant-Rs. 75,000/-- Prof. Saswati Mazumdar,
2. An approach towards optimized Indian Road lighting Design in Indian Context - T E Q I P , Grant-Rs. 75,000/--Suddhasatwa Chakraborty
3. Implementation of MesopicPhotometry in Outdoor Lighting-TEQIP, Grant-Rs. 75,000/--Sangita Sahana

**3. A. Invited Lectures Delivered/Session Chaired: (Name of the Teacher- Type of Participants-Name of the Seminar/Conference-Date and Venue)**

1. Prof. Saswati Mazumdar - Chair person -**LUMINESCENCE 2017** (National Student Congress On Illumination)-27<sup>th</sup> and 28<sup>th</sup> February 2017, Kolkata.
2. Prof. Biswanath Roy-Chair person-**LUMINESCENCE 2017** (National Student Congress On Illumination)-27<sup>th</sup> and 28<sup>th</sup> February 2017, Kolkata.
3. Prof. Biswanath Roy-Resource Person-Photonic Devices & VLSI-Dept. of Electronics & Communication Engg.; B.P.Poddar Institute of Management & Technology, Kolkata. 7<sup>th</sup> May 2016.
4. Prof. Biswanath Roy-Resource person-Built Environment & Sustainable Technologies-Department of Architecture, Jadavpur University, Kolkata. Duration: 2-21st January 2017
5. Prof. Biswanath Roy-Resource person-Green lighting & Energy Management-Department of Electrical Engineering, Kalyani Govt. Engineering College. 15<sup>th</sup> March 2017
6. Prof. Biswanath Roy-Resource person-Operation and Maintenance of Electrical & Electronics Apparatus and related safety issues-Department of Electrical Engineering, Jadavpur University, Kolkata. 20-26<sup>th</sup> March 2017
7. Suddhasatwa Chakraborty-Invited Lecture on "Redefining Luminosity -Luminescence-2017- 27<sup>th</sup> and 28<sup>th</sup> February 2017, Kolkata.
8. Suddhasatwa Chakraborty-Resource person-Teqip funded seminar on "Modern Technique in Power Generation and Functioning of Electricity Regulatory Commission" -Department of Electrical Engineering, Technique Polytechnic Institute, West Bengal 24<sup>th</sup> September 2016

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- 9 Suddhasatwa Chakraborty-Invited Lecture on “Lighting for Tomorrow-Indian Society of Lighting Engineers (ISLE), Calcutta State Centre-Dr. B R Ambedkar Hall,2<sup>nd</sup> Floor, Nizam Palace, Kolkata 700020 26<sup>th</sup> August 2016.
- 10 Suddhasatwa Chakraborty-Invited Lecture “Energy Efficiency in Electrical Energy Sector with Special reference to use of Electrical Energy in Domestic, Commercial, Industrial and Agricultural Sub-Sectors:”-Seminar on “Combating Climate Change, National Solar Mission & National Mission for Enhanced Energy Efficiency”-Administrative Training Institute, Gov’t of West Bengal, India.14<sup>th</sup> March 2017
- 11 Suddhasatwa Chakraborty-Invited Lecture on “Advanced Illumination Engineering”-Electro technology organized for CESC Ltd. -Department of Electrical Engineering, Jadavpur University, Kolkata. 31<sup>st</sup> March 2017
- 12 Suddhasatwa Chakraborty-Special Invited Talk on “Present research activities and future research pathways by me.”-- -Department of Energy & Automation Technology, Chair of Lighting Technology, and Technical University of Berlin, Germany 25<sup>th</sup> July-29<sup>th</sup> July 2016.
- 13 Suddhasatwa Chakraborty-Invited Lecture-61<sup>st</sup> Orientation Programme at UGC-HRDC-UGC-HRDC , Salt Lake Campus, Jadavpur University, Kolkata 18<sup>th</sup> June 2016.

**B. Seminar/Workshop/Conference/Symposium Attended: (Name of the Teacher-Name of the Paper-Name of the Seminar/ Conference-Date and Venue)**

1. Sangita Sahana -Performance Analysis Of Fluorescent And Led Lamp System)-IEEE International Conference on Computer, Electrical & Communication Engineering (ICCECE 2016)-Kolkata

**C. Seminar/Workshop/Conference/Symposium Organized: (Name of the Teacher-Name of Seminar/Conference-Place-Duration)**

- 1 Suddhasatwa Chakraborty-A TEQIP-II funded one day Industry -Institute Interactive Seminar on “Street Lighting in India : Recent Developments and Challenges.”-Electrical Engineering Department, Jadavpur University -7<sup>th</sup> September 2016
- 2 Suddhasatwa Chakraborty-A TEQIP-II funded one day Workshop on “Awareness in Fire Safety and Recent Technologies.”-Dr.Triguna Sen Auditorium , Jadavpur University-21<sup>st</sup> October 2016
- 3 Suddhasatwa Chakraborty-A TEQIP-II funded one day seminar on “Recent Trends in Computational Science.”-TEQIP Building. Hall No 209,Jadavpur University-3<sup>rd</sup>-4<sup>th</sup> March 2017
- 4 Suddhasatwa Chakraborty-National Student’s Congress in Illumination Engineering 2017, “Luminescence-2017”, jointly organized by Electrical Engineering Department & Indian Society of Lighting Engineers (ISLE), Calcutta State Centre-Dr.Triguna Sen Auditorium , Jadavpur University-27<sup>th</sup> -28<sup>th</sup> February 2017
- 5 Suddhasatwa Chakraborty-National Symposium on “Internet of Things : Trends and Opportunities Ahaed (NSIoT-2016) , jointly organized by IET(UK), Kolkata Local Network & Electrical Engineering Department, Jadavpur University-K.P.Basu Memorial Hall, Jadavpur University, Kolkata-12<sup>th</sup> -13<sup>th</sup> August, 2016
- 6 Suddhasatwa Chakraborty-A TEQIP-II funded seminar on “Recent Developments and Challenges in Flood Lighting Design.”-Electrical Engineering Department, Jadavpur University -April 2016
- 7 Suddhasatwa Chakraborty-A TEQIP-II funded seminar on “”Curriculum Revision and Feedback from Industries.”-Electrical Engineering Department, Jadavpur University-22<sup>nd</sup> March 2017



- 8 Sangita Sahana–LUMINESCENCE 2017 Triguna Sen Auditorium, Jadavpur University–27<sup>th</sup>-28<sup>th</sup> February, 2017
- 9 Sangita Sahana–Street Lighting in India: Recent Developments and Challenges–K.P.Basu Memorial Hall, Jadavpur University, Kolkata–7<sup>th</sup> September 2016
- 10 Sangita Sahana–National Symposium on Internet of Things: Trends and Opportunities–K.P.Basu Memorial Hall, Jadavpur University, Kolkata –12<sup>th</sup> -13<sup>th</sup> August 2016

**D. Orientation Courses/Refresher Courses Attended:(Name of the Teacher–Title of the Course–Place–Duration)**

Prof. Saswati Mazumdar–Training on Laboratory Quality Management System and Internal audit as per ISO/IEC 17025: 2005–Institute of Applied Quality Management , at Hotel Senator, Kolkata–7<sup>th</sup> to 10<sup>th</sup> December 2016

Suddhasatwa Chakraborty–Training on Laboratory Quality Management System and Internal audit as per ISO/IEC 17025: 2005– Institute of Applied Quality Management , at Hotel Senator, Kolkata–7<sup>th</sup> to 10<sup>th</sup> December 2016

Sangita Sahana–Refresher Course on “Built Environment and Sustainable Technologies–Jadavpur University–3 Weeks

Sangita Sahana–Laboratory Quality Management System and Internal audit as per ISO/IEC 17025: 2005–Hotel Senator, Kolkata–4 Days

**4. B. Articles Published/Accepted in Journals (April, 2016 – March, 2017): (Name of the Teacher–Name of the Articles–Name of the Journal–Date of Publication–Volume)**

- 1 Prof. Saswati Mazumdar (Co-Author)–“A rough set-based method for aiming angle tuning of luminaires for outdoor sports lighting”–Lighting Research & Technology –April 2016– Vol - 48, Issue-2 pp 126-154.
- 2 Prof. Saswati Mazumdar (Co-Author)–A Study of the Suitability of LED Light Sources Over Conventional Light Sources In a Museum Environment–Light & Engineering (SVETOTEKHNIKA) –2016– Volume 24, Number 1, Pages- 36-40.
- 3 Prof. Saswati Mazumdar (Co-Author)–Studies and Experiments For Determination of Paintings in Museum Art Galeries caused by Artificial Light Sources–Light & Engineering (SVETOTEKHNIKA)–2016– Volume 24, Number 2, Pages- 12-21.
- 4 Dr.Biswanath Roy (Co-Author)–Development and performance assessment of White LED dimmer –Journal of The Institution of Engineers (India): Series B–2016–On-line
- 5 Dr.Biswanath Roy (Co-Author)–Evaluation of a light controller for a LED-based dynamic light source–Lighting Research & Technology–2017–Online
- 6 Dr.Biswanath Roy (Co-Author)–Development and validation of dynamic conductance based wattage independent model for magnetic ballast driven non-retrofit CFLs.–Light & Engineering–2016–Vol. 24(2): 65-76
- 7 Dr.Biswanath Roy (Co-Author)–Matlab simulation of Indoor general lighting with luminaire ies file –Light & Engineering–2016–Vol. 24(2): 118-127



**5. Collaborative Programme:**

1. Two six months certificate courses entitled “**Skill Development Training on Electricity & Safety Practices**” & “**Skill Development Training on Installation & Maintenance of Electrical & Electronics System**” have been organized with joint collaboration of National Institute of Electronics & Information Technology (NIELIT) and Electrical Engg. Dept., JU.
2. Measurement of Illumination in Rabindra Sarovar before and during football match was done for undertaking a rapid Environmental Impact Assessment study in Rabindra Sarovar lake premises, by Professor Saswati Mazumdar, E.E., J.U. & Mr. Parthasarthi Satvaya, SISED, J.U., in collaboration with West Bengal Biodiversity Board, Dept. of Environment, Govt. of West Bengal, on recommendation of National Green Tribunal Eastern Zone.

**6. Major Achievement:**

- Prof.S.Mazumdar has been selected as the Chair Person of the Illumination Engineering and Luminaries Sectional Committee ETD 49 of Bureau of Indian Standards.
- Suddhasatwa Chakraborty was engaged in Research sharing cum Study Trip in Department of Energy & Automation Technology, Chair of Lighting Technology, & Technical University of Berlin, Germany as “Visiting Scientist” from 25<sup>th</sup> to 30<sup>th</sup> July 2016, has been elected as the Executive Committee member of The IET, UK, and Kolkata Local Network, has been elected as Director, Technical, Indian Society of Lighting Engineers (ISLE), and Calcutta State Centre for the period 2016-2018, has been selected as the Convener of the Panel P/4 – for Revision of IS 1944 of Bureau of Indian Standards ETD.

**ELECTRONICS & TELECOMMUNICATION ENGINEERING**  
**(Diamond Jubilee Year : 1957-2017)**

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**1. A. Courses Offered:**

- **B.E. (ETCE)** : 4 years (72 x 4 + 3 x 3 (for lateral entry) = 297)
  - **M.E. (ETCE)** : 2 years ( 30 (including 5 Q.I.P) x 2 = 60)
  - **Evening M.Tech.** :
1. VLSI Design and Microelectronics Technology : 3 years (18 x 3 = 54)
  2. Intelligent Automation and Robotics : 3 years (18 x 3 = 54)

**1. B. Number of Faculty Members: 19**

**2. A. Area(s) of Research Activities:**

1. Adaptive Antennas
2. Ad hoc Wireless Networks
3. Analog Signal Processing
4. Antennas and Microwaves
5. Antenna Optimization
6. Artificial Intelligence
7. Bio-Informatics and Computational Biology
8. Biological and Agricultural Effects of Radiation
9. Biomedical Image Processing
10. Biomedical Engineering
11. Broadband Wireless Communications
12. Brain Computer Interface
13. Call Admission Control in Cellular and WiMAX Networks
14. CMOS MEMS Integration and Signal Conditioning of Gas Sensor
15. Coding Theory
16. Cognitive Neuroscience
17. Cognitive Radios
18. Computational Electromagnetics
19. Computer Networking
20. Computer Vision
21. Control Engineering
22. Cybernetics
23. Data Security and Data Hiding
24. Design and Simulation of RF MEMS based Capacitive Switch
25. Development of Embedded Systems for Medical Diagnostic Applications
26. Dielectric Resonator Antennas
27. Dielectric Resonator Antennas Optimization Techniques and Applications
28. Digital Communication
29. Digital Signal Processing
30. Electronic Devices
31. Embedded Systems
32. EMI/EMC
33. Energy Harvesting
34. Fiber Optic Communication
35. Fractal Filter

36. Fuzzy Sets and Theory
37. III-V Heterostructure Devices
38. High Frequency VLSI Design
39. Human-Computer Interaction
40. Low Dimensional Systems
41. Metamaterials
42. MEMS
43. MEMS based Metal Oxide Gas Sensors
44. MEMS based Pressure Sensors
45. Microstrip Antenna
46. Microstrip Antennas and Circuits
47. Microstrip Filters
48. Microstrip Wearable Antennas
49. Microwave Passive Device
50. Microwave Planar Circuits
51. Millimeter Wave Antenna
52. Mobility Management for 3G/WLAN Integrated Architecture
53. Mobile and Wireless Communication
54. Mobility Management for Integrated Architecture
55. MOS Device Physics
56. Multi-agent Robotics
57. Multimedia Analysis
58. Nano-Crystal Embedded Flash Memory Design
59. Numerical Electromagnetic Coding
60. Optimization Techniques
61. Optical Sensor Network
62. Packet Scheduling in WiMAX, VoIP over WiFi and WiMAX
63. Pattern Recognition
64. Perception Engineering
65. Photonics
66. Porous Silicon Formation by Alumina Template
67. Porous Silicon Low Pressure Sensors
68. Power Optimization of VLSI Circuits
69. Radio Resource Management for BWA Networks
70. Reconfigurable of Smart Antennas
71. RF & Microwave Systems (NDT, Imaging, Communication)
72. RF CMOS
73. RFID and its Applications

74. RF MEMS
75. RF VLSI
76. Robotics
77. Semiconductor Device
78. Semiconductor Device and Photonics
79. Signal and Image Processing
80. Simulations of Nanodevice Models
81. Single Electron & Spintronics Devices and their Applications in VLSI Circuits
82. Soft Computing
83. Study of Nanocrystalline Silicon, Zinc Oxide and its Application on Solar Cells and Gas Sensors
84. Substrate Integrated Waveguide
85. Swarm and Evolutionary Algorithms
86. Thin Film and Related Devices
87. Ultra Low Power VLSI Circuit
88. VLSI Circuit Design
89. VoIP and Video Communication over Cognitive Radio Networks
90. Wearable Antennas
91. WiMAX Handoff and Call Admission
92. Wireless Body Area Networks
93. Wireless Sensor Networks

**2. B. Major Research Project(s) as PI/Co-PI Completed/Ongoing: Name of the Faculty - Title of the Project - Funding Agency - Amount (Rs.) - Duration - Status (Completed / Ongoing)**

**Prof. Chandan Kumar Sarkar**

1. Noise and Harmonic Analysis of Advanced CMOS Devices for RF Applications -DST- Rs. 26 Lakhs - (2014-2017) - Ongoing.
2. Optimization of Advanced Double Gate MOSFETs and their Circuits for RF Performance in Nano Regime - AICTE - Rs.12.15 Lakhs - (2015-2018) - Ongoing.
3. Devices and Systems - UGC UPE-II - Rs. 6.5 Lakhs- (2016-2017) - Ongoing.

**Prof. Bhaskar Gupta** jointly with **Prof. Subir Kumar Sarkar**

4. Advanced Materials and Systems (Devices and Systems Subgroup) - UGC UPE-II - Rs. 26.032 Lakhs - (2016-18) - Ongoing.

**Prof. Bhaskar Gupta, P.I. & Dr. Sudhabindu Ray, Co-P.I.**

5. Antenna System Design for Proximity Sensor - ARDE, DRDO - Rs. 24.725Lakhs - (2016-2018) - Ongoing.
6. Radio Communication System Design, Fabrication and Measurement Technique - UGC (SAP) - Rs. 59 Lakhs - (2012-2017) -Completed.

**Prof. Amit Konar**

7. UGC UPE-II - Cognitive Science - Rs. 3.7 Crores - (2016-18) - Ongoing.

**Prof. Subir Kumar Sarkar**

8. Low Power ASIC-VLSI Implementation of Secure and Authentication Algorithms for Defense Application - UGC UPE -II - Rs. 7.82 Lakhs + 1 Scholar – (2016-2018) – Ongoing.
9. Analytical Modeling and Simulation based Verification for Low Dimensional Devices Suitable for Low Power Application - UGC UPE -II - Rs. 7.32 Lakhs + 1 Scholar –(2016-2018) – Ongoing.
10. Analytical Modeling and Simulations of SOI/SON MOSFETs: A Comparative Analysis to Get Better Device for Next Generation Integrated Circuits - UGC MRP-MAJOR-ELEC-2013-19144 – Rs. 8.325 Lakhs + 1 Scholar – (2016-2019) – Ongoing.

**Prof. Subir Kumar Sarkar, Co-ordinator & Prof. P. Venkateswaran, Joint Co-ordinator, Dr. A. S. Chowdhury and Dr. Sayan Chatterjee**

11. DST - PURSE II – Rs. 85 Lakhs – (2015-2018) - Ongoing.

**Prof. Iti Saha Misra**

12. Mobile and Innovative Applications Programme: Design of Wireless Body Area Networks for remote e-health monitoring; UGC Funded “University with Potential for Excellence - Phase II” scheme of Jadavpur University – Rs. 16 Lakhs – (2015-2017) – Completed.
13. Design and Development of Remote Monitoring of e-health system over Wireless Platform using Cognitive Radio - UGC UPE-II - Rs. 16.35Lakhs – (March 2016- March 2018) – Ongoing.

**Prof. Chayanika Bose**

14. Modelling Optoelectronic and Transport Characteristics of Semiconductor Nanostructures -UGC UPE-II – Rs. 13 Lakhs – (2016-2018) –Ongoing.

**Dr. Sayan Chatterjee, Co-ordinator & Dr. Chandrima Mondal, Joint Co-ordinator**

15. Special Manpower Development Programme- Chip to System Design – MEITY- Rs. 136 Lakhs – (2015-2020) – Ongoing.

**Dr. Sayan Chatterjee**

16. Design of Textile based Substrate Integrated Waveguide Components – TEQIP –II, Jadavpur University- Rs. 0.5 Lakhs –(March 2016-September 2016) – Completed.

**3. A. Invited Lectures Delivered/Tutorials/Sessions Chaired:(Name of the Teacher, Type of Participants, Name of the Seminar / Conference etc. Place, Duration)**

**Prof. Chandan Kumar Sarkar**

1. Delivered an IEEE Distinguished Lecture on “Versatility of GaN-based Heterostructure Nano transistors,” held at
  - (i) National Institute of Science and Technology, Berhampur, on March 06, 2017
  - (ii) Kalyani Government Engineering College (Invited Lecture during DevIC 2017 Conference, March 23-24, 2017).
  - (iii) Meghnad Saha Institute of Technology, Kolkata, on March 25, 2017
2. Chaired a Session during DevIC 2017 Conference, held at Kalyani Government Engineering College, March 23-24, 2017.

**Prof. Salil Kumar Sanyal**

3. Delivered an Invited Lecture on “CMOS Static and Dynamic Circuits for VLSI System Design” on November 28, 2016 during the UGC-HRDC Refresher Course on “VLSI Design and Nanotechnology: Issues and Challenges” jointly organized by Department of ETCE, JU and Department of CSE, JU at JU, Kolkata.

**Prof. Bhaskar Gupta**

4. Delivered an Invited Lecture during the International Symposium on Frontiers of Research Speech and Music, FRSM 2016, held at North Orissa University Baripada, held during November 11-16, 2016.
5. Delivered an Invited Lecture during the National Workshop On Intelligent Sensing, Instrumentation & Control (ISIC 2017) (Under TEQIP-II) held during January 30-February 03, 2017.
6. Delivered an Invited Lecture during the one day seminar on “Emerging Technology in Telecommunication”, held at Techno India, Batanagar, on April 20, 2017.
7. Delivered an Invited Lecture at Cambridge Institute of Technology, Adamas Institute of Technology, and Gobardanga Hindu College during 2016-2017.
8. Chaired a session during the 16th Mediterranean Microwave Symposium (MMS2016), held at Abu Dhabi, UAE, during November 14-16, 2016.
9. Delivered an Invited Lecture on “Cell Phone Radiation Issues: Myth or Reality” during the one-day National Seminar organized by BITM in collaboration with West Bengal Academy of Science & Technology (WAST) on January 23, 2016 .
10. Delivered an Invited Lecture during the India Antenna Week, during June 06-10, 2016, held at Thiagarajar College of Engineering, Madurai, Tamil Nadu.
11. Delivered an Invited Lecture at IIT Kharagpur (IEEE AP-MTT student chapter), on May 03, 2017.
12. Delivered an Invited Talk during the National Conference on Technology and Society at Camellia Institute of Technology, Madhyamgram, during February 23-24, 2017.

**Prof. Amit Konar**

13. Delivered an Invited Lecture on “Brain -Computer Interfacing for Bio-Perceptual and Rehabilitative Applications”, during the one-day workshop on Some New Research Directions in Machine Learning and Machine Intelligence, organized by Visva-Bharati University, Kolkata on February 25, 2017.
14. Delivered an Invited Lecture on “Brain-Controlled Robots - A Science or a Myth?”, in a TED student’s event, held at Jadavpur University, Kolkata on January 27, 2017.
15. Delivered an Invited Lecture on “Brain -Computer Interfacing for Bio-Perceptual and Rehabilitative Applications,” during the the Refresher Course, organized by Department of Life Science and Bio-Technology, held at Jadavpur University, Kolkata on January 05, 2017.
16. Delivered an Invited Lecture on “Differential Evolution Algorithm with applications in Robotics,” during a workshop on Optimization Techniques, organized by NIT, Durgapur held at Heritage Institute of Technology, Kolkata on November 10, 2016.
17. Delivered an Invited Lecture on “Swam Intelligence and Multi Objective optimization,” during a workshop “Evolutionary Optimization Techniques”, organized by Heritage Institute of Technology, Kolkata on July 12, 2016.
18. Delivered an Invited Lecture on “Brain -Computer Interfacing and Applications,” in a workshop on Computational Intelligence, organized by South Asian University, held at New Delhi on May 24, 2016.
19. Delivered an Invited Lecture on “Type -2 Fuzzy Sets with Applications in Pattern Recognition and Control,” during a workshop on Computational Intelligence, organized by South Asian University, held at New Delhi on May 23, 2016.
20. Delivered an Invited Lecture on “Machine Intelligence and Robotics,” in a Faculty Development Program, organized by Department of CSE, RCC College of Technology, Kolkata on April 05, 2016.



21. Delivered an Invited Lecture on Brain -Computer Interfacing for the Next Generation Rehabilitative Applications,” during a workshop organized by Institute of Engineering and Management, Kolkata on April 02,2016.

**Prof. Mrinal Kanti Naskar**

22. Delivered an Invited Lecture on “Descriptions of Sequential Circuits using Verilog HDL in Front to Back End Design of Integrated Circuit using EDA tools”, Faculty Development Program sponsored by TEQIP – II , MCKV Institute of Engineering, Howrah, on July 11, 2016.
23. Delivered an Invited Lecture on “Custom Processor Design” during the One week QIP on “Electronic System” (Under TEQIP Phase II), Narula Institute of Technology, Kolkata, on March 09, 2017.
24. Delivered a Lecture on “Intelligent Digital Circuit Design and Description using Verilog” during the annual meeting of IEEE Computational Intelligence Society, Kolkata Chapter at University of Kalyani, on December 26, 2016.
25. Chaired a Session during the “National Conference on Recent Trends in Engineering and Technology (NCRTEET 2017)”, held at Tripura Institute of Technology, Agartala, on March 18, 2017.

**Prof. Subir Kumar Sarkar**

26. Delivered an IEEE Distinguished Lecture on “Searching Befitting Devices for Modern VLSI Circuits”, during the IEEE ED Mini Colloquium, held at National Institute of Science & Technology (NIST), Berhampur, Orissa, on March 06, 2017.
27. Delivered an IEEE Distinguished Lecture on “Evolution of Low Power VLSI Design Scenario”, during the 1st International Conference on VLSI, Devices, Circuits and Systems (VLSI DCS 2016) jointly organized by IEEE MSIT Student Branch, IEEE MSIT EDS Student Branch Chapter, IEEE EDS Kolkata Chapter and IEEE SSCS Kolkata Chapter, in association with the Department of Electronics and Communication Engineering, held at Meghnad Saha Institute of Technology and technically cosponsored by IEEE Kolkata Section, on October 19, 2016.
28. Delivered an IEEE Distinguished Lecture on “Recent Trends in Lower Power VLSI Design”, at the Distinguished Lecture Program organized by IEEE EDS Student Chapter, IIT Roorkee, on October 08, 2016.
29. Delivered an IEEE Distinguished Lecture on “Low Power Design Challenges for the decade”, at the Distinguished Lecture Program organized by IEEE EDS Chapter and IEEE Kolkata Section in collaboration with Department of Electronics & Communication Engineering, held at Meghnad Saha Institute of Technology, Kolkata, West Bengal, on April 20, 2016.
30. Delivered an IEEE Distinguished Lecture on “Low Power Design Strategies in VLSI Circuits”, at the IEEE Mini Colloquium Organized by National Institute of Technology, Silchar, Assam, on 15th April, 2016.
31. Delivered a Keynote Speech on “Advanced VLSI Design Issues and Challenges” during the 29th International Conference on Engineering & Technology, Computer, Basic & Applied Sciences” (ECBA-2016), organized by Academic Fora at Holiday Inn Silom, Bangkok, Thailand, during July 14-15, 2016.
32. Delivered a Keynote Speech on “Adiabatic Computing: A Contemporary Review for Low Power VLSI circuits”, during the IEEE International Conference on “Signal Processing, Communication, Power and Embedded Systems (SCOPE-2016)”, held at Centurion University of Technology & Management, JITM campus, Paralakhemundi, Gajapati, Odisha, on October 05, 2016.

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33. Delivered a Keynote Speech on “Energy Saving and Protection of Global Environment by Semiconductor Industry”, during the National Conference on Renewable Energy (NCRE-2016), held at Heritage Institute of Technology, Kolkata, on during July 27-28,2016.
34. Delivered an Invited Lecture on “Designing Low power VLSI Circuits: Practical Recipes”, during the 2nd National Conference on Recent Developments in Electronics (NCRDE-2017), held at the University of Delhi, South Campus, New Delhi during February 17-18,2017.
35. Delivered an Invited Lecture on “Low Power Design Challenges for the Decade”, during the International Conference on Advances in Nanomaterials and Nanotechnology (ICANN-2106), held at FTK-CIT, Jamia Millia Islamia University, New Delhi, during November 04-05, 2016.
36. Delivered an Invited Lecture on “Sensors for Wireless Communication in Real-life Applications: RFID based Systems”, during the International Conference on Advanced Computing, ICAC-2016, held at MAKAUT, Saltlake, Kolkata, during October 26-27, 2016.
37. Delivered an Invited Lecture during the 5-day Tutorial-cum-Workshop on “Nano-materials and Devices for Biomedical Applications”, held at the University of Calcutta from October 24-27, 2016.
38. Delivered an Invited Lecture on “Power Performance Tuning in Low Power VLSI Design”, during the International Conference on Computational Science and Engineering (ICCSE-2016), held at RCC Institute of Information Technology, Kolkata, India on October 04,2016.
39. Delivered an Invited Lecture on “Power Optimization Techniques in Low Power VLSI Circuit Design”, during the National workshop on ‘Emerging VLSI Technologies’, Assam University, Silchar on September 27-28, 2016.
40. Delivered an Invited Lecture on “Power Reduction Techniques in Digital VLSI Circuits: Issues and Challenges “, during the one week National Workshop On “Emerging Trends In VLSI & Signal Processing” under TEQIP-II, held at Sree Vidyanikethan Engineering College, Tirupati, during August 22-27,2016.
41. Delivered an Invited Lecture on “Research Methodology” at Calcutta University, on June 17, 2016.
42. Chaired a Session during the Students’ Technical Article Competition : PRAYAS-2017, organized by Department of Electronics and Communication Engineering, MCKV Institute of Engineering, on February 18, 2017.
43. Chaired a Session during the International Conference on Advanced Computing: ICAC-2016, MAKAUT, Saltlake, Kolkata, held during October 26-27, 2016.
44. Chaired a Session on “MEMS and VLSI”, during the International Conference on Computational Science and Engineering (ICCSE-2016), held at RCC Institute of Information Technology, Kolkata, India, on October 04, 2016.
45. Chaired a Session on “Electrical Science (Electrical and Electronics Engineering)” organized by IEST Research Scholars Colloquium (RSC-2016), on August 23, 2016.

**Prof. Iti Saha Misra**

46. Delivered an IEEE Technical Lecture on “Some Emerging Research Aspects on Wireless Communication” held at IETE Tripura State Centre on April 23, 2016.
47. Delivered an Invited Lecture on “Cognitive Radio: A Prospect for 5G Communication” during the 27th GISFI meeting and IEEE 5G Summit, held at IETE New Delhi Centre during December 02 & 03, 2016.

48. Delivered an Invited Lecture on “Cognitive Radio and It’s applications”, at the EE Department, NIT Rourkela, Odisha on May 28, 2016.
49. Delivered an IEEE Technical Lecture “Recent Research on 5G Wireless Communication using Cognitive Radio Networks” at the Department of ECE, Tripura University, on 23 Nov 2016.
50. Chaired a Session on “Communication Systems, Antenna Research, and Cognitive Radio” during the 4th International Conference on Advanced Computing, Networking and Informatics (ICACNI 2016), Rourkela, Odisha, on September 24, 2016.

**Dr. Sheli Sinha Chaudhuri**

51. Delivered a Lecture during the one week workshop on “Fundamentals of Electronics and Communications Systems 2016”, held at the ECE Department, Narula institute of Technology, on 22nd July 2016.
52. Delivered an Invited Lecture on “Field Effect Transistors: Concepts and Applications” in one week QIP on Electronic System (Under TEQIP Phase II), Narula Institute of Technology, Kolkata, on March 10, 2017.
53. Acted as a judge in hardware design competition “INCEPTION 2016”, organized by ECE Department, Future Institute of Engineering and Management, on April 19, 2016.

**Dr. Ananda Shankar Chowdhury**

54. Delivered a Lecture on “Medical Image Segmentation - Some Applications and Trends”, TEQIP-II Sponsored Workshop on Emerging Trends in Bio-medical Engineering & Computational Biology, School of Bio-Science and Engineering, Jadavpur University, India, during March 2017.
55. Delivered a Lecture on “Causal Video Analysis using Graphs and Superpixels”, during the International Conference on Modeling, Computing and Technological Innovations (ICMCTI), University Institute of Technology, Burdwan University, Burdwan, during March 2017.
56. Delivered a Lecture on “Biomedical Image Analysis with Some Applications”, TEQIP-II Sponsored Short Term Course on Computer Vision, Pattern Recognition and Image Analysis, NIT Durgapur, India, during October 2016.
57. Delivered a Lecture on “Data Fusion for Computer Vision based Surveillance Applications”, IEEE GRSS Lecture, Institute for Radio Physics and Electronics, Calcutta University, India, during August 2016.
58. Delivered a Lecture on “Multiple Video Processing with Graph-theoretic Frameworks”, Johann Bernoulli Institute for Mathematics and Computer Science, University of Groningen, The Netherlands, during July 2016.
59. Delivered a Lecture on “Matching, Cut, Connectivity: Graph-theoretic Solutions for Biomedical Image Analysis”, at the University of Padova, Italy, during May 2016.

**Dr. Sayan Chatterjee**

60. Delivered Lecture on “Fundamental of Substrate Integrated Waveguide” during VCOMM-2016 organized by the Institute of Radio Physics and Electronics, Calcutta University in association with UGC NRCPC on 29th March, 2016.
61. Delivered a Lecture on “Electromagnetic Pollution on Plants” during the 64th Orientation Programme at UGC –HRDC, Jadavpur University on 23rd February, 2017.
62. Delivered Lecture on “Electromagnetic Pollution on Living Things” during the One Day State Level Seminar organized by Department of Electronics, Barrackpore Rastraguru Surendranath College in association with IQAC cell on 28th February, 2017.

63. Delivered Lecture on “Electromagnetic World” during the One Day National Seminar on Application of Electromagnetic Engineering organized by Department of Electronics and communication, RCC Institute of Information Technology, in association with IEI, India and TEQIP-II on 7th February, 2017.
64. Chaired a Session on “Computer - Aided Design and Techniques” during the IEEE MTT-S sponsored International Conference on Numerical Electromagnetic and Multiphysics Modeling and Optimization for RF, Microwave and Terahertz Application ( NEMO -2016 ) held at Beijing, China on 29th July, 2016.

**Dr. Pratyusha Rakshit**

65. Delivered an Invited Lecture on ‘Evolutionary Optimization Techniques,’ organized by Department of Electrical Engineering, Heritage Institute of Technology on 12th July, 2016.
66. Delivered an Invited Lecture on ‘Computational Intelligence in Engineering Applications,’ organized by Department of Electrical Engineering, Future Institute of Engineering and Management on 23rd March, 2017.

**3. B. Seminar/Workshop/Conference/Symposium Attended: (Name of the Teacher, Name of the Paper Presented, Name of the Seminar, Place, Duration)**

**Prof. Bhaskar Gupta**

1. Attended all India Seminar organized by Electronics & Telecommunication Engineering Division, WBSC, IEI on ‘Emerging Trends in Telecommunication’, during Sept. 21-22, 2016.

**Prof. Iti Saha Misra**

2. Attended the IEEE International Symposium on 5G Summit at IIT Patna. She was invited at the Inaugural session to highlight the role of IEEE ComSoc for 5G Research worldwide as the member of the steering committee of 5G summit, March 29-31, 2016.

**Prof. P. Venkateswaran, Dr. Sheli Sinha Chaudhury, Dr. Sudipta Chattopadhyay and Mr. Nirmoy Modak**

3. Attended three-day Workshop on “Initiatives in Outcome Based Education and NBA Accreditation”, sponsored by TEQIP Phase II, organized by Jadavpur University during March 6-8, 2017 at Hyatt Regency, Kolkata.

**Dr. Sheli Sinha Chaudhuri, Dr. Ananda Sankar Chowdhury, Dr. Sudhabindu Roy, Dr. Sudipta Chattopadhyay and Dr. Chandrima Mondal**

4. Attended one-day workshop on “Curriculum Revision” sponsored by TEQIP Phase II organized by Department of ETCE, Jadavpur University on March 21, 2017.

**Dr. Sudhabindu Ray and Dr. Sayan Chatterjee**

5. Attended one-day seminar on “Frontiers of RF Technology” Sponsored by TEQIP Phase II In Technical Collaboration with DRS, SAP (UGC), organized by Department of ETCE, Jadavpur University on March 31, 2017.

**Dr. Sudipta Chattopadhyay**

6. Attended and presented the paper entitled “Design of improved Adaptive Equalizers using intelligent computational techniques: Extension to WiMAX system” during the IEEE Uttar Pradesh Section organized International Conference on Electrical, Computer and Electronics Engineering (UPCON) held at Indian Institute of Technology (Banaras Hindu University), Varanasi, during December 9-11, 2016.

**Dr. Sayan Chatterjee**

7. Attended One-day Lecture Programme on “Recent Trends in MIMO and Satellite Antennas” organized by IEEE Kolkata Section at the K.P.Basu Memorial auditorium on March 29, 2017.

**Dr. Chandrima Mondal**

8. Attended two-day workshop on Recent Trends in Signal Processing organized by ETCE Dept., Jadavpur University during October 19-20, 2016.

**Dr. Pratyusha Rakshit**

9. Attended and presented the papers entitled “Multi-Robot Box-Pushing in Presence of Measurement Noise”, “Evolutionary Approach for Selection of Optimal EEG Electrode Positions and Features for Classification of Cognitive Tasks”, and “Knowledge Extraction from a Time-Series Using Segmentation, Fuzzy Matching and Predictor Graphs” during the 2016 IEEE World Congress on Computational Intelligence (WCCI 2016) at Vancouver Convention Center, Vancouver, Canada during July 27-29, 2016.

**3.C. Seminar/Workshop/Conference/Symposium Organized:**

**Prof. Bhaskar Gupta**

1. Organized Three-day Workshop On Design and Analysis of Millimeter Wave Circuits - Sponsored by TEQIP Phase – II, at the department of ETCE, Jadavpur University, during September 8-10, 2016.
2. Organized a One-day Workshop on Curriculum Revision - sponsored by TEQIP Phase-II, at the department of ETCE, Jadavpur University, on March 21, 2017.
3. Organized a one-day Seminar on Frontiers of RF Technology – sponsored by TEQIP Phase II in technical collaboration with DRS, SAP (UGC), at the department of ETCE, Jadavpur University, on March 31, 2017.

**Prof. Subir Kumar Sarkar**

4. Organized a One-day workshop on “Emerging Areas of Electronics and Communication Engineering” funded by TEQIP-II, at the Dept. of ETCE, Jadavpur University, Kolkata on July 29, 2016.

**Prof. Iti Saha Mishra**

5. Organized IEEE 5G summit and 28th GISFI meeting as General Chair at Hotel Senses, Kolkata
6. Organizing member of ICACNI 2016, NIT Rourkela, Odisha, during March 17-18, 2016.
7. Organized IEEE Distinguished Lecturer Tour on “Sharing Infrastructure and Spectrum: A Vision for the Future of Mobile Networks at K.P. Bose Seminar Hall. Jadavpur University, on June 20, 2016.
8. Organized IEEE Distinguished Lecturer Tour on “Internet of Things: A Pervasive Technology for Innovation” at the ECE Department of Meghnad Saha Institute of Technology, on September 29, 2016.
9. Organized IEEE Technical Lecture Meeting on How to sustain in the emerging Cyberspace: A Game Theory Perspective at ETCE Department, Jadavpur University, on January 08, 2017.

**Prof. P. Venkateswaran, Dr. (Mrs.) Sudipta Chattopadhyay & Dr. (Ms.) Pratyusha Rakshit**

10. Organized two-day **Diamond Jubilee Year Hands-on Training Program** on “Ultra Low Power Design using TI MSP430G2 Launch Pad” in Technical Collaboration with



EdGate Technologies Pvt. Ltd., Bangalore, sponsored by TEQIP Phase II, at the Department of ETCE, Jadavpur University, during October 21-22, 2016.

**Prof. P. Venkateswaran, Dr. Sayan Chatterjee & Dr. (Mrs.) Chandrima Mondal**

11. Organized two-day **Diamond Jubilee Year Hands-on Training Program** on “Internet of Things (IoT) using MSP430F5529 ULP MCU” in Technical Collaboration with EdGate Technologies Pvt. Ltd., Bangalore, sponsored by TEQIP Phase II, in the Department of ETCE, Jadavpur University, during February 17-18, 2017.

**Dr. Sheli Sinha Chaudhuri, Dr. Sayan Chatterjee & Dr. (Ms.) Pratyusha Rakshit**

12. Organized a one-day Faculty Development Programme on “Image Processing Using Pingalab (IPP 2016)” at the Department of ETCE, Jadavpur University on September 21, 2016 with **Prof. P. Venkateswaran**, HoD, ETCE, JU as the Faculty Advisor.

**Dr. Sudipta Chattopadhyay & Dr. Sheli Sinha Chaudhuri**

13. Organized two-day workshop on “Recent Trends in Signal Processing (RTSP 2016)”, sponsored by TEQIP Phase II, at the Department of ETCE, Jadavpur University, during October 18-19, 2016.

**Dr. Sudipta Chattopadhyay**

14. Academic Coordinator : IEEE 5G summit and 28th GISFI meeting held at Hotel Senses, Kolkata, during March 17-18, 2016.

**Dr. Sayan Chatterjee**

15. Organized one-day workshop on “Remote Sensing Applications and Science (RSAS-2016)”, Indismart Hotel, Kolkata in association with IEEE GRSS Chapter on December 17, 2016.

**Mr. Nirmoy Modak**

16. IEEE 5G summit and 28th GISFI meeting during March 17-18, 2016 at Hotel Senses, Kolkata.

**3.D. Orientation Courses/ Refresher Courses Attended: (Name of the Teachers, Title of the Course, Duration, Place)**

1. **Dr. Sayan Chatterjee** participated in the 63rd Orientation Programme at UGC - HRDC, Jadavpur University from November 15 – December 12, 2017.

**3.E. Orientation Courses/Refresher Courses Organized:(Name of the Teachers, Title of the Course, if any, Duration,Place)**

1. **Prof. Subir Kumar Sarkar** organized a UGC Refresher Course on “VLSI Design and Nanotechnology: Issues and Challenges”, at the department of ETCE, Jadavpur University, during November 28 - December 17, 2016.

**4. A. Books/Monographs etc. Published: (Name of the Teacher, Name of the Book, Name of the Publisher)**

**4. A. 1. Books:**

**Prof. Chandan Kumar Sarkar**

1. A Sarkar, S De, M Chanda, **C. K. Sarkar**, Low Power VLSI Design: Fundamentals. Walter de Gruyter GmbH & Co KG, August 8, 2016.

**Prof. Amit Konar**

2. **Amit Konar** and Diptendu Bhattacharya, Time-Series Prediction and Applications - A Machine Intelligence Approach, Intelligent Systems Reference Library 127, Springer, ISBN 978-3-319-54596-7, 2017.



3. **Amit Konar** and Sriparna Saha, "Gesture Recognition: Principles, Techniques and Applications Series", Studies in Computational Intelligence, Springer, 2017, (Accepted).

#### 4.A.2. Peer Reviewed/Book Chapters:

##### Prof. Amit Konar

1. Sriparna Saha and **Amit Konar**, "A Study on Static Hand Gesture Recognition Using Type-1 Fuzzy Membership Functions", Handbook of Research on Applied Computational Intelligence in Engineering, IGI Global 2017, (Accepted).

##### Prof. Mrinal Kanti Naskar

2. Amitava Mukherjee, Ayan Chatterjee, Debayan Das, **Mrinal K Naskar**, "Design of Structural Controllability for Complex Network Architecture", Advanced Methods for Complex Network Analysis, IGI Global, Chapter 4, pp. 98-124, 2016/4/7.
3. Amitava Mukherjee, Sudip Dutta, Rashid A Saeed, **Mrinal K Naskar**, "Fault Tracking Framework for Software-Defined Networking (SDN)", Resource Allocation in Next-Generation Broadband Wireless Access Networks, IGI Global, Chapter 11, pp. 247, 2017/2/14.

##### Dr. Sudipta Chattopadhyay

4. Subhabrata Banerjee, Sudipta Chattopadhyay, "A Novel Modified Ant Lion Optimizer Algorithm: Extension to Proposed 4D-TC", Swarm Intelligence - From Concepts to Applications, IET, 2017, (Accepted).

#### 4.B.1. Articles Published in Journals: (Name of the Teacher, Name of the Articles, Name of the Journal, Date of Publication, Volume)

##### Prof. Chandan Kumar Sarkar

1. Chanda Rahul Das, Atanu Kundu, **Chandan K Sarkar**, "Analytical modeling of label free biosensor using charge plasma based gate underlap dielectric modulated MOSFET." Super lattices and Microstructures, Elsevier, 104, pp. 451-460, March 2017.
2. Ankush Chattopadhyay, Rahul Das, Arpan Dasgupta, Atanu Kundu, **Chandan K Sarkar**, "A linearity based comparison between symmetric and asymmetric lateral diffusion for a 22 nm Underlapped DG-MOSFET." Superlattices and Microstructures, Elsevier, April 2017.
3. S Nag, B Das, A Basu, J Das, DP Bhattacharya, **C K Sarkar**, "Energy loss to intravalley acoustic modes in nano-dimensional wire structures at low temperatures." Physica E: Low-dimensional Systems and Nanostructures, Elsevier, 87, pp. 237-241, March 2017.
4. A Chattopadhyay, A Dasgupta, R Das, A Kundu, **C K Sarkar**, "Effect of spacer dielectric engineering on Asymmetric Source Underlapped Double Gate MOSFET using Gate Stack." Superlattices and Microstructures, Elsevier, 101, January 2017, pp. 87-95.
5. K Biswas, A Sarkar, **C K Sarkar**, "Spacer engineering for performance enhancement of junctionless accumulation-mode bulk FinFETs." IET Circuits, Devices & Systems 11, no. 1, pp. 80-88, February 2017.
6. D Dutta, E Bontempi, Y You, S Sinha, J Das, SK Hazra, **C K Sarkar**, S Basu, "Surface topography and hydrogen sensor response of APCVD grown multilayer graphene thin films." Journal of Materials Science: Materials in Electronics, Springer, 28, no. 1, pp. 157-166, January 2017.
7. S Adak, SK Swain, H Rahaman, **C K Sarkar**, "Impact of gate engineering in enhancement mode n++ GaN/InAlN/AlN/GaN HEMTs." Superlattices and Microstructures, Elsevier, 100, pp. 306-314, 2016.

8. K Roy, **C K Sarkar**, C K Ghosh, "Antibacterial mechanism of biogenic copper nanoparticles synthesized using *Heliconiapsittacorum* leaf extract." *Nanotechnology Reviews* 5, no. 6, pp. 529-536, 2016.
9. S Mukherjee, S Roy, A Dutta, **C K Sarkar**, "Study on effect of back oxide thickness variation in FDSOI MOSFET on analogue circuit performance." *IET Circuits, Devices & Systems* 10, no. 6, pp. 497-503, 2016.
10. S Chakraborty, A Dasgupta, R Das, A Kundu, **C K Sarkar**, "Impact of Asymmetric Dual-k Spacer in the Underlap Regions of Sub 20 nm NMOSFET with Gate Stack." *Superlattices and Microstructures* 98, pp. 448-457, 2016.
11. S Roy, S Mukherjee, A Dutta, **C K Sarkar**, "Effect of back oxide thickness of FDSOI on SRAM performance." *Superlattices and Microstructures* 98, 2016, pp. 316-324.
12. S Ghosh, K Koley, **C K Sarkar**, "Study of process induced variability of germanium-pTFET in analog and RF domain." *Microelectronics Reliability* 65, pp. 47-54, 2016.
13. S Ghosh, K Koley, S K Saha, **CK Sarkar**, "High-Performance Asymmetric Underlap Ge-pTFET With Pocket Implantation." *IEEE Transactions on Electron Devices* 63, no. 10, pp. 3869-3875, 2016.
14. G S Sivaram, S Chakraborty, R Das, A Dasgupta, A Kundu, **C K Sarkar**, "Impact of Lateral Straggle on the Analog/RF Performance of Asymmetric Gate Stack Double Gate MOSFET." *Superlattices and Microstructures*, Elsevier, 97, pp. 477-488, 2016.
15. S Adak, SK Swain, H Pardeshi, H Rahaman, **C K Sarkar**, "Effect of Barrier Thickness on Linearity of Underlap AlInN/GaN DG-MOSHEMTs", *NANO: Brief Reports and Reviews* (World Scientific Publishing Company), Volume 12, Issue 01, pp.-1750009, January 2017.
16. R Das, S Chakraborty, A Dasgupta, A Dutta, A Kundu, **C K Sarkar**, "Analysis of high-k spacer on symmetric underlap DG-MOSFET with Gate Stack architecture." *Superlattices and Microstructures*, Elsevier, 97, pp. 386-396, 2016.
17. SK Swain, S Adak, SK Pati, **C K Sarkar**, "Impact of InGaN back barrier layer on performance of AlInN/AlN/GaN MOS-HEMTs." *Superlattices and Microstructures*, Elsevier, 97, pp. 258-267, 2016.
18. Sarosij Adak, Sanjit Kumar Swain, Arka Dutta, HafizurRahaman, **C K Sarkar**, Influence of Channel length and High-K oxide Thickness on Subthreshold DC Performance of Graded Channel and Gate stack DG-MOSFETs *NANO: Brief Reports and Reviews* (World Scientific Publishing Company) Accepted: 17 May 2016. Volume 11, Issue 09, pp 1650101.
19. A Dutta, K Koley, SK Saha, **C K Sarkar**, "Physical Insights into Electric Field Modulation in Dual-k Spacer Asymmetric Underlap FinFET." *IEEE Transactions on Electron Devices* 63, no. 8 (2016): 3019-3027.
20. P Dutta, K Koley, A Dutta, **C K Sarkar**, "An Analytical BTBT Current Model of Symmetric/Asymmetric 4T Tunnel Double Gate FETs with Ambipolar Characteristic." *IEEE Transactions on Electron Devices* 63, no. 7 (2016): 2700-2707.

**Prof. Salil Kumar Sanyal and Prof. Iti Saha Mishra**

1. Anindita Kundu, **Salil K. Sanyal** and **Iti Saha Misra**, "Joint location and power optimisation of femto base stations to improve indoor coverage: a geometric approach", *Transactions on Emerging Telecommunications Technologies*, Vol. 27, Issue 11, pp. 1496-1512, November 2016.

**Prof. Bhaskar Gupta**

1. Sudipta Maity and **Bhaskar Gupta**, "Analysis of Horizontally Inhomogeneous Rectangular Dielectric Resonator Antenna" accepted for publication to International Journal of Electronics and Communications (AEÜ) on 4th April, 2017.
2. Amrita Chakraborty and **Bhaskar Gupta**, "Utility of RF MEMS miniature switched capacitors in phase shifting applications", International Journal of Electronics and Communications (AEÜ), Vol. 75, May 2017, Pp. 98-107 (Published online).
3. Sudipta Maity and **Bhaskar Gupta**, "Simple Procedure to Evaluate Singularity Free Expressions for Radiation Patterns of an Antenna with Rectilinear Symmetry," accepted for publication in Waves in Random and Complex Media.
4. Sudipta Maity and **Bhaskar Gupta**, "Approximate Investigations on Isosceles Triangular Microstrip Antenna in Fundamental Mode," Microwave and Optical Technology Letters, Vol. 59, Issue 3, pp. 614-618, March, 2017.
5. Amrita Chakraborty and **Bhaskar Gupta**, "RF MEMS Phase Shifters: An Overview", IEEE Microwave Magazine, vol. 18, No. 1, pp. 22-41, Jan.-Feb. 2017.
6. Sudipta Maity and **Bhaskar Gupta**, "Theoretical Investigations on Equilateral Triangular Dielectric Resonator Antenna", IET Microwaves, Antennas & Propagation, vol. 11, issue 2, pp. 184-192, Jan. 2017.
7. S. Maity and **B. Gupta**, "Experimental Investigations on Wideband Triangular Dielectric Resonator Antenna," in IEEE Transactions on Antennas and Propagation, vol. 64, no. 12, pp. 5483-5486, Dec. 2016.
8. Milind Thomas Themalil, JibenduSekhar Roy and **Bhaskar Gupta**, "Design of a Circularly Polarized T – Stub Coupled Microstrip Patch Antenna for WLAN", Asian Journal of Applied Sciences, vol. 4, no. 4, August, 2016.
9. Amrita Chakraborty and **Bhaskar Gupta**, "Development of Compact 180 degree Phase Shifter using MEMS Technology", Sensors and Actuators A: Physical (Elsevier), vol. 247, pp. 187-198, 2016.
10. Sanghamitra Das Gupta and **Bhaskar Gupta**, "A Compact Rectangular Microstrip Patch Antenna Design For Portable Energy Harvesting Applications", IUP Journal Of Electrical & Electronics Engineering, Vol. 9, no. 1, pp. 7-16, Jan. 2016.

**Prof. Amit Konar**

1. Sriparna Saha, **Amit Konar** and Shreyasi Datta, "Fuzzy Logic and Differential Evolution based Hybrid System for Gesture Recognition using Kinect Sensor," Expert Systems (EXSY), John Wiley & Sons Ltd., 2017 (to appear)
2. Anwesha Khasnobish, **Amit Konar**, D. N. Tibarewala, and Atulya K .Nagar, "Bypassing the Natural Visual-Motor Pathway to Execute Complex Movement Related Tasks Using Interval Type-2 Fuzzy Sets," IEEE Transactions on Neural Systems and Rehabilitation Engineering, Vol. 25, No. 1, January, 2017.
3. Saugat Bhattacharyya, **Amit Konar**, and D.N Tibarewala, "Motor Imagery and Error Related Potential Induced Position Control of a Robotic Arm," IEEE CAA Journal of Automatica Sinica, 2017 (to appear).
4. Ramadoss Janarthanan, **Amit Konar** and Aruna Chakraborty, "Propositional syntax and semantics induced knowledge re-structuring in a fuzzy logic network for ad hoc reasoning," Int. Journal on Approximate Reasoning, Vol.82, pp. 138-160, 2017.

5. Diptendu Bhattacharya, **Amit Konar** and PratyushaDas, "Secondary factor induced stock index time-series prediction using Self-Adaptive Interval Type-2 Fuzzy Sets," *Neuro computing*, Vol.171, pp.551-568, 2016.
6. Anwasha Khasnobish, Monalisa Pal, D. N. Tibarewala, **Amit Konar** and Kunal Pal, "Texture and deformability-based surface recognition by tactile image analysis," *Med. Biol. Engineering and Computing*, Vol. 54, No. 8, pp.1269-1283, 2016.

**Prof. Mrinal Kanti Naskar**

1. Bitan Banerjee, Anand Seetharam, Amitava Mukherjee, **Mrinal Kanti Naskar**, "Characteristic time routing in information centric networks", *Computer Networks*, Elsevier, vol. 13, pp. 148-158, Feb. 2017.
2. Sibendu Paul, Bitan Banerjee, Amitava Mukherjee, **Mrinal Kanti Naskar**, "Priority-based content processing with Q-routing in information-centric networking (ICN)", *Photonic Network Communications*, Springer, vol. 32, no. 3, pp. 348-358, Dec. 2016.
3. Rajarshi Middya, Nabajit Chakravarty, **Mrinal Kanti Naskar**, "Compressive Sensing in Wireless Sensor Networks—a Survey", *IETE Technical Review*, Taylor & Francis, pp. 1-13, Oct. 2016.

**Prof. Subir Kumar Sarkar**

1. Pritha Banerjee and **Subir Kumar Sarkar**, "3D Analytical Modeling of Dual Material Triple Gate Silicon-on Nothing MOSFET", *IEEE Transactions on Electron Devices*, Vol.64, Issue 2, pp-368-375, February 2017.
2. Arpita Ghosh, Amit Jain, S.Gharami and **Subir Kumar Sarkar**, "Small Signal model for Single electron Transistor: Part 1", *Journal of Computational Electronics*, Springer, DOI: 10.1007/s10825-017-0971-1, February 2017.
3. Tiya Dey Malakar, Partha Bhattacharyya and **Subir Kumar Sarkar**, "Analytical surface potential modeling based small signal analysis and RF performance characterization of DMG SOI MOSFET for better RFIC application", *IETE Technical Review*, pp-1-10, February, 2017.
4. Moutushi Singh, Abdur Rahaman Sardar, Koushik Majumder and **Subir Kumar Sarkar**, "A Lightweight Trust Mechanism and Overhead Analysis for Clustered WSN", *IETE Journal of Research*, pp-1-12, February, 2017.
5. Anup Sarkar, Sk. Halim, Ankush Ghosh, and **Subir Kumar Sarkar**, "Implementation of PMN-PT/Ni based NOR Gate with Biaxial Anisotropy off ultralow energy dissipation", in *Journal of Nanoelectronics and Optoelectronics*, Vol.12, pp-1-6, December 2016.
6. Manas Ranjan Nayak, Joyshree Bag, Souvik Sarkar and **Subir Kumar Sarkar**, "Hardware Implementation of a novel water marking algorithm based on phase congruency and singular value decomposition technique", *AEU-International Journal of Electronics and Communications*, Elsevier, Vol.71, pp-1-8, November 2016.
7. Amit Jain, Arpita Ghosh, N. Basanta Singh and **Subir Kumar Sarkar**, "A Nanoelectronic Neuron Cell for Image Processing Application Based on CNN Architecture", *Journal of Nanoelectronics and Optoelectronics*, ASP, Volume 11, Number 3, pp. 356-362(7), June 2016.
8. Arpita Ghosh, Amit Jain, N. Basanta Singh and **Subir Kumar Sarkar**, "A modified macro model approach for SPICE based simulation of single electron transistor" *Journal of Computational Electronics*, Springer, DOI 10.1007/s10825-015-0790-1, Vol. 15, Issue 2, pp. 400-406, June-2016.
9. Navjeet Bagga, Saheli Sarkhel and **Subir Kumar Sarkar**, "Exploring the Asymmetric Characteristics of a Double Gate MOSFET with Linearly Graded Binary Metal Alloy Gate Electrode for Enhanced Performance", *IETE Journal Of Research*, DOI: 10.1080/03772063.2016.1176542, April, 2016.

**Prof. Iti Saha Misra**

1. Tanumay Manna and **Iti Saha Misra**, “Designing an Analytical Model for IEEE 802.15.6 Scheduled Access Mode in Non-Saturation Regime”, IOP Conference series: Material Science and Engineering Journal, vol. 69, 4th Radio and Antenna Days of the Indian Ocean (RADIO-2016), **Réunion Island**, Oct 2016. (**IEEE -URSI Young Scientist Award Category**).
2. Arijeet Ghosh and **Iti Saha Misra**, “A Joint CAC and Dynamic Bandwidth Allocation Technique for Capacity and QoS Analysis in Heterogeneous LTE based BWA Network: Few Case Studies”, Accepted and final manuscript submitted March 2017, Wireless Personal Communications, Springer.
3. Chitradeep Majumdar and **Iti Saha Misra**, “Design and Analysis of An Optimized Cognitive Radio enabled Wireless Body Area Network”, IEEE Transaction, under first revision (SCI journal).
4. Tamal Chakraborty and **Iti Saha Misra**, “A Centralized Optimal Target Channel Sequence Design and Allocation Scheme for Real time Cognitive Radio Users”, IEEE Transaction Submitted Jan 2017 (under review, SCI Journal).

**Prof. P. Venkateswaran**

1. S. Dhabal, **P. Venkateswaran**, “Passive congregation-based particle swarm optimisation for designing quadrature mirror filter bank”, Intl. Jl. of Signal and Imaging Systems Engineering, Inderscience, Vol. 9, No. 6, pp.357- 368, 2016.
2. S. Dhabal, **P. Venkateswaran**, “An efficient gbest-guided Cuckoo Search algorithm for higher order two channel filter bank design”, Elsevier, Swarm and Evolutionary Computation, Available online 20 October 2016, doi: <http://dx.doi.org/10.1016/j.swevo.2016.10.003>.
3. A. Chatterjee, **P. Venkateswaran**, et al., “Simultaneous State Estimation of Cluster-Based Wireless Sensor Networks”, IEEE Transactions on Wireless Sensor Networks, Vol. 15, No. 12, pp.7985-7995, Dec. 2016.

**Dr. Sheli Sinha Chaudhuri**

1. Swagatam Das, Soham Sarkar, **Sheli Sinha Chaudhuri**, “Hyper Spectral Image Segmentation using Renyi Entropy based multilevel Image Thresholding Aided with Differential Evolution”, Expert Systems with Applications, ELSEVIER, vol. 50, pp 120-129, May 2016.
2. Sangita Roy, **Sheli Sinha Chaudhuri**, “Modelling of Haze Image as an Ill Posed Inverse Problem and its Solution”, IJMECS, Vol. 8, No. 12, pp 46-55, December 2016.
3. Nilanjan Dey, Sk Saddam Ahmed, Sayan Chakraborty, **Sheli Sinha Chaudhuri**, “Effect of Trigonometric Functions Based Watermarking on Blood Vessel Extraction: An Application in Ophthalmology Imaging”, International Journal of Embedded Systems, Inderscience, Vol. 9 (1), pp. 90-100, January 2017.
4. Swagatam Das, Soham Sarkar, **Sheli Sinha Chaudhuri**, “Multi Level Thresholding With A Decomposition Based Multiobjective Evolutionary Algorithm For Segmenting Natural And Medical Images”, Journal of Applied Soft Computing, Elsevier, Vol. 50, pp. 142-157, January 2017.
5. Swati Chowdhury, Nilanjan Dey, Sayan Chakraborty, Pranab Kumar Banerjee, **Sheli Sinha Chaudhuri**, “Propagation Analysis of MIMO Ad Hoc Network in Hybrid Propagation Model And Implement Less Propagation Loss Algorithm To Find The Minimum Loss Route”, International Journal of Communication Technology, Inderscience, Vol. 10 (1), pp. 66-80, January 2017.

**Dr. Ananda Shankar Chowdhury**

1. R. Panda, S.K. Kuanar, **A.S. Chowdhury**, “A multi-similarity spectral clustering approach for movie scene detection,” IEEE Transactions on Cybernetics (in press, DOI: 10.1109/TCYB.2017.2657692)[Impact Factor: 4.943].



2. V. N. Gangapure, S. Nanda, **A.S. Chowdhury**, "Supapixel based Causal Multisensor Video Fusion," IEEE Transactions on Circuits and Systems for Video Technology (in press, DOI: 10.1109/TCSVT.2017.2662743) [Impact Factor: 2.254].
3. G. Bhattacharya, K. Ghosh, **A.S. Chowdhury**, "Granger Causality Driven AHP for Feature Weighted kNN," Pattern Recognition, 66, 425-436, 2017. [Impact Factor: 3.399].

**Dr. Manotosh Biswas**

1. M. Dam, and **M. Biswas**, "Investigation of a Right-Angled Isoceles Traingular Patch Antenne on Composite and Suspended Substrates based on a CAD-Oriented Cavity Model", IETE Journal of Research, vol. 63 (2), pp. 248-259, January 23, 2017.

**Dr. Sudipta Chattopadhyay**

1. S. Banerjee, **S. Chattopadhyay**, "Power Optimization Of Three Dimensional Turbo Code Using A Novel Modified Symbiotic Organism Search (MSOS) Algorithm", Wireless Personal Communications. 2016; 92(3):941-968.
2. Abhijit Chandra and **Sudipta Chattopadhyay**, "Novel Minimum Index Floating Point Representation for the Design of Powers-of-two Filter", International Journal of Electronics Letters (Taylor & Francis), vol. 5, no. 1, pp. 69-81, 2017.
3. Subhabrata Banerjee, **Sudipta Chattopadhyay**, "Evaluation of System Performance by Adding a Fourth Dimension to Turbo Code", International Journal of Communication Systems, Wiley (Accepted)
4. Subhabrata Banerjee, **Sudipta Chattopadhyay**, "Realization of Proposed Four Dimensional Turbo Code (4D-TC) using Simplified Augmented State Diagram", Wireless Network, Springer. (Accepted)

**Dr. Chandrima Mondal**

1. **Chandrima Mondal**, Abhijit Biswas, "Performance Analysis of Nanoscale GeSn MOSFETs for Mixed-Mode Circuit Applications", Materials Science in Semiconductor Processing, Elsevier, Vol. 66, pp. 109-116, April 2017.

**Dr. Pratyusha Rakshit and Prof. Amit Konar**

1. **Pratyusha Rakshit**, **Amit Konar**, and Swagatam Das, "Noisy Evolutionary Optimization Algorithms – A Comprehensive Survey", Swarm and Evolutionary Computation, Elsevier, Volume 33, April, 2017, pp. 18-45 [Impact Factor: 2.963].
2. **Pratyusha Rakshit**, Sriparna Saha, and **Amit Konar**, "A Type-2 Fuzzy Classifier for Gesture Induced Pathological Disorder Recognition", Fuzzy Sets and Systems, Elsevier, Volume 305, December, 2016, pp. 95-130 [Impact Factor: 2.098, Citation: 1].
3. **Pratyusha Rakshit**, and **Amit Konar**, "Non-dominated Sorting Bee Colony Optimization in Presence of Noise", Soft Computing, Springer, Volume 20, Issue 3, March, 2016, pp. 1139-1159 [Impact Factor: 1.630, Citation: 3].
4. Lahiri Rimita, **Pratyusha Rakshit**, and **Amit Konar**, "Evolutionary perspective for optimal selection of EEG electrodes and features," Biomedical Signal Processing and Control, Vol. 36, 113-137, 2017.
5. Archana Chowdhury, **Pratyusha Rakshit** and **Amit Konar**, "Protein-protein interaction network prediction using stochastic learning automata induced differential evolution," Applied Soft Computing, Vol. 49, pp.699-724, 2016.
6. Archana Chowdhury, **Pratyusha Rakshit** and **Amit Konar**, "Prediction of protein-protein interaction network using a multi-objective optimization approach," J. Bioinformatics and Computational Biology , Vol. 14, No. 3, pp.1-34, 2016.



7. Arup Kumar Sadhu, **Pratyusha Rakshit** and **Amit Konar**, “A modified Imperialist Competitive Algorithm for multi-robot stick-carrying application,” *Robotics and Autonomous Systems*, Vol. 76, pp.15-35, 2016.

**Mr. Nirmoy Modak**

1. Baibhab Chatterjee, **Nirmoy Modak**, Anvesha Amaravati, Deep Mistry, Devarshi Mrinal Das, and Maryam Shojaei Baghini, “A Sub-1 V, 120 nW, PVT-Variation Tolerant, Tunable, and Scalable Voltage Reference With 60-dB PSNA”, *IEEE Transactions on Nanotechnology*, (Accepted).

**4.B.2. Articles Published in Conference Proceedings:**

**Prof. Bhaskar Gupta**

1. Kaushik Patra, Sayantan Dhar and **Bhaskar Gupta**, “Radiation from Simple and Perturbed Arbitrarily Curved Microstrip Lines”, in proceedings of APMC 2016, Dec. 5-9, 2016.
2. Rinki Ghosal and **Bhaskar Gupta**, “Determination of Resonant Frequency of Stacked Cylindrical Dielectric Resonator Antenna (DRA) for TM modes,” ,” in proceedings of MMS (Mediterranean Microwave Symposium) Abu Dhabi, UAE, 14-16 November, 2016.
3. A Kundu, **B Gupta**, A I Mallick & S. K Pal, “Effects of Non-Ionizing Electromagnetic Radiation on Capsicum annum Seed Germination and Subsequent Sapling Growth – A Time Study,” ,” in proceedings of International Conference on Microelectronics, Computing and Communication (MicroCom2016), NIT Durgapur, India, 23rd – 25th Jan, 2016.
4. A Kundu, **B Gupta**, A I Mallick & S. K Pal, “SAR Analysis in a Typical Bunch of Grapes Exposed to Radio Frequency Radiation in Indian Scenario,” ,” in proceedings of International Conference on Microelectronics, Computing and Communication (MicroCom2016), NIT Durgapur, India, 23rd – 25th Jan, 2016.

**Prof. Amit Konar**

1. Aditya Panda, Srijan Ghoshal, **Amit Konar**, Bonny Banerjee and Atulya K. Nagar, “Static learning particle swarm optimization with enhanced exploration and exploitation using adaptive swarm size,” in proceedings of IEEE Congress on Evolutionary Computation (CEC 2016), Vancouver, BC, Canada, pp.1869-1876, July 24-29, 2016.
2. Reshma Kar, **Amit Konar**, Aruna Chakraborty, Anca L. Ralescu and Atulya K. Nagar, “Extending the Nelder-Mead algorithm for feature selection from brain networks,” in proceedings of IEEE Congress on Evolutionary Computation (CEC 2016), Vancouver, BC, Canada, pp.4528-4534, July 24-29, 2016.
3. Sriparna Saha, Shreyasi Datta, **Amit Konar**, Bonny Banerjee and Atulya K. Nagar, “A novel gesture recognition system based on fuzzy logic for healthcare applications,” in proceedings of IEEE International Conference on Fuzzy Systems, FUZZ-IEEE 2016, Vancouver, BC, Canada, pp.634-641, July 24-29, 2016.
4. Mainak Dan, Anuradha Saha, **Amit Konar**, Anca L. Ralescu and Atulya K. Nagar, “A type-2 fuzzy approach towards cognitive load detection using fNIRS signals,” in proceedings of IEEE International Conference on Fuzzy Systems, FUZZ-IEEE 2016, Vancouver, BC, Canada, pp.2508-2515, July 24-29, 2016.
5. Snehalika Lall, Anuradha Saha, **Amit Konar**, Mousumi Laha, Anca L. Ralescu and Kalyankumar Mallik, Atulya K. Nagar, “EEG-based mind driven type writer by fuzzy radial basis function neural classifier,” in proceedings of 2016 International Joint Conference on Neural Networks (IJCNN), Vancouver, BC, Canada, pp.1076-1082, July 24-29, 2016.

6. Sriparna Saha, Rimita Lahiri, **Amit Konar**, Bonny Banerjee and Atulya K. Nagar, "Human skeleton matching for e-learning of dance using a probabilistic neural network," in proceedings of 2016 International Joint Conference on Neural Networks (IJCNN), Vancouver, BC, Canada, pp.1754-1761, July 24-29, 2016.
7. Sriparna Saha, **Amit Konar**, Anuradha Saha, Arup Kumar Sadhu, Bonny Banerjee, Atulya K. Nagar, "EEG based gesture mimicking by an artificial limb using cascade-correlation learning architecture," in proceedings of 2016 International Joint Conference on Neural Networks (IJCNN), Vancouver, BC, Canada, pp.4680-4687, July 24-29, 2016.
8. Sriparna Saha, Rimita Lahiri, **Amit Konar** and Atulya K. Nagar, "A novel approach to American sign language recognition using MAdaline neural network," in proceedings of IEEE Symposium Series on Computational Intelligence (SSCI 2016), Athens, Greece, pp.1-6, December 6-9, 2016.

**Prof. Mrinal Kanti Naskar**

1. Bitan Banerjee, Amitava Mukherjee, **Mrinal Kanti Naskar**, Chintia Tellambura, "BSMAC: A hybrid MAC protocol for IoT systems", in proceedings of Global Communications Conference (GLOBECOM), IEEE, pp. 1-7, 2016/12/4, 2016.
2. Somjit Nath, Paramita Banerjee, Rathindra Nath Biswas, Swarup Kumar Mitra, **Mrinal Kanti Naskar**, "Arduino based door unlocking system with real time control", in proceedings of 2nd International Conference on Contemporary Computing and Informatics (IC3I), 2016, IEEE, pp. 358-362, 2016/12/14.
3. Sagar Bose, Soham Mukherjee, Sayak Kundu, Utpal Biswas, **Mrinal Kanti Naskar**, "AVR Microcontroller Based Conference Presentation Timer", in proceedings of First International Conference on Intelligent Computing and Communication, Springer Singapore, pp. 407-412, 2017.

**Prof. Subir Kumar Sarkar**

1. Subhashis Roy, Bikram Biswas, Anup Dey, Bijoy Kantha and **Subir Kumar Sarkar** "A Proposal for Detection Ethanol Leakage using WO<sub>3</sub> Thin Film Sensor with RFID Technology" First International Conference (Springer) on Computational Intelligence, Communications, and Business Analytics (CICBA-2017) Calcutta Business School, India. March 24-25, 2017.
2. Tiya Dey Malakar, Partha Bhattacharyya and **Subir Kumar Sarkar**, "Quantum Analytical Modelling of Threshold Voltage for Linearly Graded Alloy Material Gate Recessed S/D SOI MOSFET", in proceedings of IEEE International Conference on Devices for Integrated Circuits (DEVIC-17), Kalyani Govt. Engg. College, March 23-24, 2017.
3. Tripty Kumari and **Subir Kumar Sarkar**, "Performance Analysis and Comparative Study of Triple Metal Double Gate TFET with SOI equivalent", in proceedings of IEEE International Conference on Devices for Integrated Circuits (DEVIC-17), Kalyani Govt. Engg. College, March 23-24, 2017.
4. Saheli Sarkhel, Priyanka Saha and **Subir Kumar Sarkar**, "Parasitic Fringe Capacitance Modeling of Work Function Engineered Double Gate TFET", IEEE International Conference on Devices for Integrated Circuits (DEVIC-17), Kalyani Govt. Engg. College, March 23-24, 2017.
5. Pritha Banerjee, Aman Mahajan and **Subir Kumar Sarkar**, "3-D Analytical Modeling of Gate Engineered Tri-gate SON MOSFET", in proceedings of IEEE International Conference on Devices for Integrated Circuits (DEVIC-17), Kalyani Govt. Engg. College, March 23-24, 2017.
6. Anup Dey, Sreeparna Barua, Subhashis Roy and **Subir Kumar Sarkar**, "Synthesis, fabrication and characterization of ZnO based thin films prepared by sol-gel process and H<sub>2</sub> gas sensing

- performance”, in proceedings of International Conference on Emerging Trends In Nanoscience and Nanotechnology (ICETINN) 2017, Sikkim Manipal University, Sikkim, March 16-18 2017.
7. Tripty Kumari, Dinesh Kumar Dash, Priyanka Saha and **Subir Kumar Sarkar**, “Modeling of Double material Hetro-dielectric strained SON PNP TFET for improved ON current”, in proceedings of International Conference on Emerging Trends In Nanoscience and Nanotechnology (ICETINN) 2017, Sikkim Manipal University, Sikkim, March 16-18 2017.
  8. Aman Mahajan, Dinesh Kumar Dash and **Subir Kumar Sarkar** “Analytical Modeling of Triple Metal Hetero Dielectric DG SON TFET”, in proceedings of International Conference on Emerging Trends In Nanoscience and Nanotechnology (ICETINN) 2017, Sikkim Manipal University, Sikkim, March 16-18 2017.
  9. Priyanka Saha, Pritha Banerjee, Dinesh Kumar Dash and **Subir Kumar Sarkar**, “Exploring the short channel characteristics of Asymmetric Junctionless Double Gate Silicon On Nothing MOSFET”, in proceedings of International Conference on Emerging Trends In Nanoscience and Nanotechnology (ICETINN) 2017, Sikkim Manipal University, Sikkim, March 16-18 2017.
  10. Subhashis Roy, Anup Dey, Bikram, Biswas and **Subir Kumar Sarkar** “Investigation of Pt and Pd modified WO<sub>3</sub> and ZnO based Thin Film Sensors for Ethanol Sensing”, in proceedings of International Conference on Emerging Trends in Nanoscience and Nanotechnology (ICETINN), Sikkim Manipal University, Sikkim, India. March 16-18, 2017.
  11. Subhashis Roy, Anup Dey, Bikram Biswas and **Subir Kumar Sarkar** “Study the Influence of Pd Surface Sensitization on WO<sub>3</sub>-Si Based Hydrogen Sensor”, in proceedings of Fourth International Symposium On Semiconductor Materials And Devices (ISSMD-4) 2017, Organized by School of Materials Science and Nanotechnology, Jadavpur University, Kolkata, India. March 8-10, 2017.
  12. Khomdram Jolson Singh, Munan Kr. Thakur, N. Sanjeev, L. Aneka, Basob Roy and **Subir Kumar Sarkar**, “ Numerical Design and Analysis of Graphene based a-Si/c-Si HIT Solar Cells”, in proceedings of International Conference on Advances in Nanotechnology (ICAN) 2017, Don Bosco University, Assam, January 9-13 2017.
  13. Arpita Ghosh and **Subir Kumar Sarkar**, “3 to 8 Decoder Implementation using Single Electron Threshold Logic (SE-TL) for Low Power Computing”, in proceedings of Emerging Trends and Advances in Electrical Engineering and Renewable Energy (ETAEEER-2016), SMIT, Sikkim, December- 2016.
  14. Anup Dey and **Subir Kumar Sarkar**, “Fabrication and characterization of developed Pd/n-WO<sub>3</sub>/SiO<sub>2</sub>/P-Si based thin film gas sensor for detection of hydrogen (H<sub>2</sub>)” in proceedings of 5th International Conference on ‘Computing, Communication and Sensor Network’, CCSN-2016, Kolkata, India, December 24-25, 2016.
  15. Subhprattim Nath, Swarnava Sarkar, Rabiraj Bandyopadhyay and **Subir Kumar Sarkar**, “A New Optimization Algorithm Based on Physarum BioNetwork for VLSI Global Routing”, in proceedings of 5th International Conference on ‘Computing, Communication and Sensor Network’, CCSN2016, Kolkata, India, December 24-25, 2016.
  16. Chabungbam Akendra Singh, Chitralekha Ngangbam, Khomdram Jolson Singh and **Subir Kumar Sarkar** “A Review on Zinc Oxide Based UV Photodetector”, in proceedings of ‘Advances In Research And Innovations In Mechanical Engineering, Material Science, Industrial Engineering And Management’ (NCARIMMIEM-2016), NIT Imphal, December 12-13, 2016.
  17. Tapas Chakrabarti, Rudrarup Sengupta, Neha Sinha and **Subir Kumar Sarkar**, “Study and Simulation of Energy Efficient Realistic HIT Solar Cell Defect States”, in proceedings of IEEE-7th

- India International Conference on Power Electronics (IICPE), Thapar University, Punjab, India, Volume: IEEE Xplore, November 17-19, 2016.
18. Tapas Chakrabarti, Tyajodeep Chakrabarti, Udit Sharma and **Subir Kumar Sarkar**, “Extraction of Efficient Electrical Parameters of SolarCell using Firefly and Cuckoo Search Algorithm”, in proceedings of IEEE-7th India ‘International Conference on Power Electronics’ (IICPE), Thapar University, Punjab, India, Volume: IEEE Xplore, November 17-19, 2016.
  19. Subhraprathim Nath, Samriddha Banik, Arnab Seal and **Subir Kumar Sarkar**, “Optimizing MANET routing in AODV: An Hybridization approach of ACO and Firefly Algorithm”, in proceedings of 2nd IEEE ‘International Conference on Research in Computational Intelligence and Communication Networks’ (ICRCICN - 2016), organized by RCCIIT, September 2016.
  20. Tiya Dey Malakar , Partha Bhattacharyya, **Subir Kumar Sarkar** “Surface Potential based Threshold Voltage Modeling of Work Function Engineered Gate Recessed Source / Drain IR SOI/SON MOSFET for better nanoscale device performance”, in proceedings of ‘International Conference on Computational Science and Engineering’(ICCSE 2016), RCC Institute of Information Technology, Kolkata, India, October 4-6, 2016.
  21. Arpita Ghosh and **Subir Kumar Sarkar**, “Comparative Study of Single Electron Threshold Logic Based and SET-CMOS Hybrid Based 1 Bit Comparator”, in the ‘International Conference on Computational Science and Engineering’ (ICCSE 2016), RCC Institute of Information Technology, Kolkata, India, October 4-6, 2016.
  22. Anup dey, Bijoy Kantha, **Subir Kumar Sarkar**. “Study the Effects of Annealing Temperatures on Sol-Gel derived TiO<sub>2</sub> Sensing Element.”, in proceedings of International Conference on Computational Science and Engineering (ICCSE 2016), RCC Institute of Information Technology, Kolkata, India, October 4-6, 2016.
  23. Subhraprathim Nath, Avik Kumar Chakravarty, Sudipta Ghosh and **Subir Kumar Sarkar**, “FPGA Placement Optimization using Firefly Algorithm”,in proceedings of 1st ‘International Conference on VLSI Device, Circuit and System’ (VLSI DCS 2016), Meghnad Saha Institute of Technology, Kolkata, India, October 19-20,2016.
  24. Subhraprathim Nath, Arnab Seal, Arko Bhattacharya and **Subir Kumar Sarkar**, “A New Approach to Routing Optimization for Cluster-Based Wireless Sensor Networks using Swarm Intelligence”, in proceedings of 1st ‘International Conference on VLSI Device, Circuit and System’ (VLSI DCS 2016), Meghnad Saha Institute of Technology, Kolkata, India, October 19-20,2016.
  25. Priyanka Saha, Dinesh Kumar Dash, Subhramita Basak and **Subir Kumar Sarkar**, “Asymmetric Junctionless Double Gate (JLDG) Silicon on Nothing (SON) MOSFET Modified with the Concept of Work Function Engineering: A Comparative Performance Study”, in proceedings of 1st ‘International Conference on VLSI Device, Circuit and System’ (VLSI DCS 2016), Meghnad Saha Institute of Technology, Kolkata, India, October 19-20, 2016.
  26. Pritha Banerjee, Aman Mahajan and **Subir Kumar Sarkar**, “2-D Analytical Modeling of Dual-Material Double Gate Silicon-On-Nothing MOSFET”, in proceedings of 1st ‘International Conference on VLSI Device, Circuit and System’ (VLSI DCS 2016), MeghnadSaha Institute of Technology, Kolkata, India, October 19-20, 2016.
  27. Tiya Dey Malakar, Partha Bhattacharyya, **Subir Kumar Sarkar**, “Analytical Surface Potential Based Modeling of Drain Current & Trans- conductance of Work Function Engineered gate Recessed S/D SOI/SON MOSFET”,in proceedings of 1st ‘International Conference on VLSI Device, Circuit and System’ (VLSI DCS 2016), Meghnad Saha Institute of Technology, Kolkata, India, October 19-20,2016.



28. Subhashis Roy, Bijoy Kantha and **Subir Kumar Sarkar**, "Study the Effect of Catalytic Metal Contacts on Ethanol Vapour Sensing Performance of WO<sub>3</sub>-Si Hetero-Structure Sensor", in proceedings of International Conference on Computational Science and Engineering (ICCSE 2016), RCC Institute of Information Technology, Kolkata, India, October 4-6, 2016.
29. Subhashis Roy, Joyashree Bag and **Subir Kumar Sarkar**, "CORDIC based Robot Navigation Processor deploying RFID Technology", in proceedings of 1st International Conference on VLSI Device, Circuit and System (VLSI DCS 2016), Meghnad Saha Institute of Technology, Kolkata, India, October 19-20, 2016.
30. Arpita Ghosh, Amit Jain, N. Basanta Singh and **Subir Kumar Sarkar**, "Single Electron Threshold Logic Based Feynman Gate Implementation", in proceedings of second IEEE International Conference on Research in Computational Intelligence and Communication Networks (ICRCICN - 2016) organized by RCCIIT, September 2016.
31. Dayananda Rajkumar, Pranab Kishore Dutta, **Subir Kumar Sarkar**, "Design and Implementation of 4-bit Ripple Carry Adder Using SETMOS Architecture", in proceedings of 'International Conference on Recent Trends in. Electronics, Information & Communication Technology' (RTEICT-2016), Bangalore, India, May, 2016.
32. Khomdram Jolson Singh and **Subir Kumar Sarkar**, "Maximum Power Point Tracking Controller Using P and O Algorithm for Solar PV Array on FPGA", in proceedings of IEEE International Conference on Communication and Signal Processing-2016 (IEEE-ICCSP'16), Melmaruvathur, Tamilnadu (India), Volume: IEEE Xplore, April 5-7, 2016.
33. Khomdram Jolson Singh and **Subir Kumar Sarkar**, "A wide band gap In<sub>0.5</sub>(Al<sub>0.7</sub>Ga<sub>0.3</sub>)<sub>0.5</sub>P Back Surface Field layer increases 6% more efficiency in DLAR Dual Junction InGaP Solar cell " in proceedings of IEEE International Conference on Energy Efficient Technologies for Sustainability - 2016 (IEEE-ICEETS - 2016), Nagercoil, TN, India, Volume: IEEE Xplore, April 7-9, 2016.

**Prof. Iti Saha Misra**

1. Anindita Mondal, Sagar Bose and **Iti Saha Misra**, "Intelligent Building Control Solution using Wireless Sensor - Actuator Networking Framework", in proceedings of International Conference on Advanced Computing, Networking, and Informatics, India, September 22 - 24 2016. (Accepted for Springer Journal).
2. Sudipta Bose and **Iti Saha Misra**, "FPGA Based Equalizer Design using a Novel Adaptive Reward-Punishment VSSLMS Algorithm for Rayleigh Fading Channel", in proceedings of 4th International Conference on Advanced Computing, Networking and Informatics (ICACNI 2016), Rourkela, Odisha, September 22 - 24, 2016.
3. Sudipta Dey, Tamal Chakraborty, **Iti Saha Misra**, "A Sub-band based CAC Scheme using Adaptive Codec Switching for improved Capacity and GoS of Cognitive VoIP Users", in proceedings of IEEE International Conference ICSCN 2017, MIT, Anna University, March 17-19, 2017.
4. Shubham Goswami, Sagnik Mukherjee, **Iti Saha Misra**, Deepan Mukherjee and Biswanath Chakraborty, "A Novel Hybrid Resource Allocation Scheme for Maximum Fairness among Multiple Services", in proceedings of International Conference on Nanoelectronics, Circuits & Communication Systems (NCCS-2016), Hazaribag Road, Ranchi, December 25-26, 2016.

**Prof. Iti Saha Mishra and Prof. Salil Kumar Sanyal**

1. Kundu, S. Majumder, **I. S. Misra, S. K. Sanyal**, "A Heuristic Approach Towards Minimizing Resource Allocation for Femto Base Station", in Proceedings of IEEE European Conference on Networks and Communications, Athens, June 27-30, 2016.

**Prof. Chayanika Bose**

1. Rakesh K. Patnaik, Ajit Kumar Panda and **Chayanika Bose**, “Influence of SiO<sub>2</sub>/SiN and SiO<sub>2</sub>/TiO<sub>2</sub> Double Layer Anti-Reflective Coating on Silicon Nanowire Solar Cell”, in proceedings of 3rd International Conference on Emerging Electronics (ICEE-2016), IIT Bombay, December 27-30, 2016.
2. Rakesh K. Patnaik, Devi Prasad Pattnaik and **Chayanika Bose**, “Performance of All Back Contact Nanowire Solar Cell with a Nano Crystalline Silicon Layer”, in proceedings of International Conference on Micro-Electronics, Electromagnetics and Telecommunications (ICMEET-2016), RIT, Visakhapatnam, January 06 - 07, 2017.
3. Susovan Mandal, **Chayanika Bose** and Manas Kumar Bose, “Realisation of one-dimensional photonic band gap within two-dimensional photonic crystal to achieve high Q spectral responses”, in proceedings of International Conference on Devices for Integrated Circuits (DevIC), 2017.
4. Shubhasree Biswas Sett and **Chayanika Bose**, “Influence of Hydrostatic Pressure on the Bound States of a Quantum Well in presence of Conduction Band Non-parabolicity”, in proceedings of 4th International Symposium on Semiconductor Materials and Devices, Jadavpur University, March 8-10, 2017.

**Dr. Sheli Sinha Chaudhuri**

1. Kyamelia Roy, **Sheli Sinha Chaudhuri**, “Automatic Vehicle Detection and Motion Path Tracking Based on Plotting of Vectors using Weighted Mean”, in proceedings of 3rd International Conference on Opto Electronics and Applied Optics, University of Engineering and Management, August 18-20, 2016. ( Won the Best paper award).
2. Sushmita Bandopadhyay, **Sheli Sinha Chaudhuri**, “Biomimicry Of Bacterial Foraging Optimization Algorithm As Image Filter”, in proceedings of International Conference On Advances In Science And Technology ICAST, MCKV Institute of Engineering, Kolkata , March 17-19, 2017.

**Dr. Ananda Shankar Chowdhury**

1. S. Das, S.M. Bhandarkar, **A.S. Chowdhury**, “An Intensity and Region Guided Narrow Band Level Set Model for Contour Tracking”, in proceedings of Twenty Third IAPR/IEEE Int'l. Conf. on Pattern Recognition (ICPR); Cancun, Mexico (2016), 2723 – 2728, 2016.

**Dr. Sudhabindu Ray**

1. J. Raychaudhuri, J. Mukherjee and **Sudhabindu Ray**, “Compact Circularly Polarized Suspended Microstrip Antenna With “SWASTIKA” Shaped Slot”, in proceedings of International Symposium on Antennas and Propagation (APSYM 16), CUSAT, December 15 -17, 2016, Publisher: IEEE, DOI: 10.1109/APSYM.2016.7929143.
2. P. Das and **Sudhabindu Ray** “NDT Using Open-Ended Waveguides”, *ibid*; DOI: 10.1109/APSYM.2016.7929149.
3. J. Raychaudhuri, J. Mukherjee and **Sudhabindu Ray**, “Compact Circularly Polarized Suspended Microstrip Antenna With “SWASTIKA” Shaped Slot”, *ibid*.
4. S. Mitra and **Sudhabindu Ray**, “Approximate Synthesis Of Microstrip Band Stop Notch Filter Using Hairpin DGS”, *ibid*

**Dr. Sudipta Chattopadhyay**

1. Subhabrata Banerjee, **Sudipta Chattopadhyay**, “A Novel Simplified Augmented State Diagram of Three Dimensional Turbo Code”, in proceedings of IEEE International Conference on Power Electronics, Intelligent Control and Energy Systems (ICPEICES-2016), pp. 1 - 6, July 4– 6, 2016.



2. Subhabrata Banerjee, **Sudipta Chattopadhyay**, “Equalizer optimization using Flower Pollination Algorithm”, in proceedings of IEEE International Conference on Power Electronics, Intelligent Control and Energy Systems (ICPEICES-2016), pp. 1 - 5, July 4– 6, 2016.
3. Ananya Dey, Subhabrata Banerjee, **Sudipta Chattopadhyay**, “Design of improved Adaptive Equalizers using intelligent computational techniques: Extension to WiMAX system”, in proceedings of IEEE Uttar Pradesh Section International Conference on Electrical, Computer and Electronics Engineering (UPCON), pp. 305 - 310, December 9– 11, 2016.
4. Subhabrata Banerjee, **Sudipta Chattopadhyay**, AnanyaDey “Improved three Dimensional Turbo Code using Superposition Modulation techniques: Extension to WiMAX system”, in proceedings of IEEE Uttar Pradesh Section International Conference on Electrical, Computer and Electronics Engineering (UPCON), pp. 311 - 316, December 9 – 11, 2016.
5. Subhabrata Banerjee, **Sudipta Chattopadhyay**,”Optimization of three-dimensional turbo code using novel symbiotic organism search algorithm”, in proceedings of IEEE Annual India Conference (INDICON)), pp. 1 - 6, December 16 – 18, 2016.
6. Utpal Kumar Paul and **Sudipta Chattopadhyay**, “A Novel Grid Based Energy Efficient Routing Algorithm for Wireless Sensor Network”, Presented at IEEE WiSPNET 2016 conference, Chennai, pp. 645 – 648, March 23 – 25, 2016.
7. Utpal Kumar Paul and **Sudipta Chattopadhyay**, “An Energy Saving Routing Scheme for WSN based Crop Field Monitoring System”, Presented at IEEE INDICON 2016 conference, IISC Bangalore, pp. 1 – 5, December 16 – 18, 2016.
8. Utpal Kumar Paul, **Sudipta Chattopadhyay**, Prabhat K Panda and Subhabrata Banerjee “A Java® Platform Tool for Visualizing and Testing of Routing Algorithms for Wireless Sensor Network”, Presented at IEEE IESC 2017 conference, NIT Meghalaya, pp. 195 – 200, April 6 – 7, 2017.
9. P. K. Panda and **S. Chattopadhyay** “A Hybrid Security Algorithm for RSA Cryptosystem”, IEEE International Conference on Advanced Computing and Communication Systems, Coimbatore, INDIA. (Accepted), Jan. 06 – 07, 2017.

#### **Dr. Sayan Chatterjee**

1. Tarun Kumar Das, **Sayan Chatterjee**, “Spurious Harmonic Suppression in a Folded Parallel-Coupled Microstrip Bandpass Filter by using Triangular Corrugations, IEEE Devices for Integrated Circuit (DevIC- 2017), Kalyani Government Engineering College ( Best paper award), March 23-24, 2017.
2. Pampa Debnath, **Sayan Chatterjee**, “Substrate Integrated Nonradiative Dielectric Guide”,in proceedings ofIEEE Devices for Integrated Circuit (DevIC- 2017), Kalyani Government Engineering College, March 23- 24, 2017.
3. Baisakhi Bandyopadhyay, Soumyo Chatterjee, Arijit Majumder, **Sayan Chatterjee**, “Adaptive Single Null Placement in Broadside Linear Array using Edge Element Control”, in proceedings of 3rd Regional conference on Radio Conference, Tirupati, pp. no. 1-4, March 2017.
4. Tarun Kumar Das, **Sayan Chatterjee**, “Performance of periodic grooves on harmonic rejection in C band folded edge coupled microstrip band pass filters”, in proceedings of International Conference on Computational Science and Engineering (ICCSE2016), Computational Science and Engineering, Taylor and Francis, ISBN: 978-1-138-02983-5, 2016.
5. Tarun Kumar Das, **Sayan Chatterjee** “2nd Harmonic suppression in parallel-coupled microstrip bandpass filter by using Koch fractals”, in proceedings of IEEE annual conference INDICON 16, DOI: 10.1109/INDICON.2016.7838919, December16 -18, 2016.

6. Debanjali Sadhu, Diptashree Das, Soumyo Chatterjee, **Sayan Chatterjee**, “ Thinning of linear antenna array with Chebyshev distribution using Binary Particle Swarm Optimization” in proceedings of International symposium on antennas and propagation (APSYM-2016), CUSAT, Cochin, India, December 15-17, 2016.
7. Abhijit Pal, Indrasis Roy, Jayati Dev, Arijit Dey, Soumyo Chatterjee and **Sayan Chatterjee**, “Closed-form Design Expression for First Null Beam Width with Taylor Distribution”, in proceedings of IEEE 2nd International Conference on Contemporary Computing and Informatics, Delhi, pp. no. 878-881, December 2016. DOI- 978-1-5090-5256-1/16.
8. **Sayan Chatterjee**, Jayanta Das, Arijit Majumder, “ Circularly Polarized Offset Center Cross Slotted Array Antenna at Ka Band”, in proceedings of International Conference on Numerical Electromagnetic and Multiphysics Modeling and Optimization for RF, Microwave and Terahertz Application ( NEMO -2016 ) , Beijing, China, July 27 -29, 2016.
9. Tarun Das, **Sayan Chatterjee**, “Design of Compact Symmetrical C –Band Microstrip Bandpass Filter with Periodic Saw-tooth Grooves”, in proceedings of International Conference IAET-2016, Inroads Journal Special issue, Vol.5, No. 1, pp. no. 254-259, 2016, Jaipur.

**Dr. Pratyusha Rakshit and Prof. Amit Konar**

1. Archana Chowdhury, **Pratyusha Rakshit, Amit Konar** and Atulya K. Nagar, “A meta-heuristic approach to predict protein-protein interaction network,” in Proceedings of IEEE Congress on Evolutionary Computation (CEC 2016), Vancouver, BC, Canada, pp.2137-2144, July 24-29, 2016.
2. Rimita Lahiri, **Pratyusha Rakshit, Amit Konar** and Atulya K. Nagar, “Evolutionary approach for selection of optimal EEG electrode positions and features for classification of cognitive tasks,” *ibid*; pp.4846-4853.
3. **Pratyusha Rakshit, Amit Konar** and Atulya K. Nagar, “Multi-robot box-pushing in presence of measurement noise”, *ibid*; pp.4926-4933.
4. Jishnu Mukhoti, **Pratyusha Rakshit**, Diptendu Bhattacharya, **Amit Konar** and Atulya K. Nagar, “Knowledge extraction from a time-series using segmentation, fuzzy matching and predictor graphs”, *ibid*; pp.1201-1208.

**5. Collaborative Programmes:**

**Prof. Amit Konar**

1. Continuing academic collaboration with Prof. Lakhmi C. Jain, University with South Australia, Adelaide.
2. Continuing academic collaboration with Prof. Atulya K. Nagar, Liverpool Hope University, UK.
3. Continuing academic collaboration with Prof. Anca L. Ralescu, University of Cincinnati, USA.
4. Continuing patent collaboration with TCS Innovation Lab, Kolkata.

**Prof. Subir Kumar Sarkar**

1. Continuing collaborative research activities in the field of Spintronics with Prof. Supriyo Bandyopadhyay of Virginia Commonwealth University, USA.
2. Continuing a collaborative research project titled “Climate change issues and environmental performance of SMEs in the UK and India” and “MSW to energy DSS for supply chain design and planning” funded by British Council under UKIERI with Prof. Prasanta Kumar Dey of Aston University, UK.
3. Continuing collaborative research activities in Nanodevices with Dr. Partha Bhattacharya of Indian Institute of Engineering Science and Technology, Shibpur (formerly BESU, Shibpur).

4. Continuing collaborative research work with Dr. Ashish Kumar De and Prof. B. Maji of National Institute of Technology, Durgapur.
5. Continuing collaborative research activities with Mr. Pranab Kishore Dutta and Mr. Swanirbhar Majumder of North Eastern Regional Institute of Science and Technology (NERIST).
6. Continuing collaborative research activities with Dr. N. B. Singh of Manipur Institute of Technology.

**Dr. Ananda Shankar Chowdhury**

1. Continuing collaborative research with Prof. Xiaoyi Jiang, University of Munster, Germany on Construction of k-regular nearest neighbor graphs.
2. Continuing collaborative research with Prof. Alexandre Falcao, University of Campinas, Brazil on Iterative Spanning Forests for Superpixel generation.
3. Continuing collaborative research with Prof. Enrico Grisan and Prof. Natascia Tiso, (both from) University of Padova, Italy on Non-rigid Registration of Zebra Fish Images.
4. Continuing collaborative research with Prof. Michael Wilkinson, University of Groningen, The Netherlands on Connected Filters and Graph Morphology for Image and Video Analysis.

**6. Major Achievements:**

**Prof. Chandan Kumar Sarkar**

1. IEEE EDS Distinguished Lecturer since 2002.
2. Founder & Chair of IEEE Solid State Circuit Society under Kolkata Section.
3. Four Ph.D. degrees were awarded under his Supervision as per details given below:
  - Atanu Kundu with thesis title “Study of Subthreshold Analog and RF Performance Trends of Multi-Gate MOSFETs in Sub-nanometer Regime”.
  - Arka Dutta with thesis title “Reliability Analysis of Advanced Nano MOS Devices for Analog and RF Applications”.
  - D. Godwinraj with thesis title “Advanced Heterostructure Devices for Power Applications”.
  - Chitta Dutta with thesis title “On the modeling of Advanced Nanoscale MOS Devices”.

**Prof. Bhaskar Gupta**

1. Three PhD degrees were awarded under his Supervision as per details given below:
  - Amrita Chakraborty with thesis title “Development of RF MEMS Based Compact Phase Shifters”.
  - Sriparna Mitra with thesis title “Modeling and Optimization of Dielectric Resonator Antennas”.
  - Sanghamitra (De) Dasgupta with thesis title “Optimal Design of Planar Antennas and Arrays for Power Harvesting”.

**Prof. Amit Konar**

1. Serving as an Associate Editor of IEEE Transactions on Fuzzy Systems.
2. Serving as an Associate Editor of IEEE Transactions on Emerging Trends in Computational Intelligence.
3. Two Ph.D. degrees were awarded under his Supervision as per details given below:
  - Pratyusha Rakshit with thesis title “Co-ordination in Multi-Agent Robotics in Presence of Measurement Noise”.
  - Diptendu Bhattacharya with thesis title “A Machine Learning Approach to Economic Time-Series Prediction”.

**Prof. Mrinal Kanti Naskar**

1. Patent obtained by Tanmoy Kundu, Kaushik Lahiri, Avirup Mandal, Amitava Mukherjee, **Mrinal K Naskar**, Sandipan Sinhaon “Generic data compression for heart diagnosis”, US Patents, No. 9477701 October 25, 2016.
2. One Ph.D. degree was awarded under his Supervision as per details given below:
  - Debabrata Sardar with thesis title “Studies on Handoff Management and Related Issues for Next Generation Wireless and Mobile Systems”.

**Prof. Subir Kumar Sarkar**

1. Has been selected as IEEE Electron Device Society Distinguished Lecturer (Region 10).
2. Was honored as Special Guest in IEEE ED Mini Colloquium (MQ) cum National Seminar, organized by Department of Electronics and Communication Engineering, NIST, Behrampur, Odisha March 6, 2017.
3. Acted as a Member of the Technical Program Committee in 2017 in First International Conference on Computational Intelligence, Communications, and Business Analytics (CICBA-2017), Calcutta Business School on March 24-25, 2017
4. Acted as a Member of the International Advisory Board in 2nd international conference on Electrical, Computer and Telecommunication Engineering (ICECTE) 2016 organized by Faculty of Electrical and Computer Engineering, Rajshahi University of Engineering & Technology (RUET) during 8<sup>th</sup> to December 10, 2016.
5. Acted as Member of the Technical Program Committee, in the International Conference on Computational Science and Engineering (ICCSE-2016), on October 4, 2016 in RCC Institute of Information Technology, Kolkata, India.
6. Acted as Member of the Technical Advisory Committee in International Conference on Advance Computing (ICAC) 2016 organized by Maulana Abul Kalam University of Technology, West Bengal (formerly known as West Bengal University of Technology), India from September 23- 25, 2016 sponsored by TEQIP-II.
7. Acted as one of the expert members in various National Level Accreditation Board.
8. Four Ph.D. degrees were awarded under his Supervision as per details given below:
  - Dr. Pranab Kishore Dutta with thesis title “Performance Improvement for Future Nanodevices and Explore some of the applications”.
  - Dr. (Mrs) Joyashree Bag with thesis title “Adaptive VLSI Design for Wireless Communication Systems”.
  - Dr. Amit Jain with thesis title “Single Electron Transistor and its Hybridization with MOSFET for increasing density of integration and reducing Power consumption”.
  - Dr. Abdur Rahaman Sardar with thesis title “Some studies on routing algorithm and security in communication network including optical network and sensor network”.

**Prof. Iti Saha Misra**

1. Tamal Chakraborty and Iti Saha Misra, “Method and Apparatus for Optimal Target Channel Sequence for a Wireless Communication System,” Indian Patent Application 201631042984, 16/12/2016, Journal No. publication date: 13/01/2017.
2. Patent applied by Tanumay Manna and Iti Saha Misra on “Method and Apparatus for Optimal Target Channel Sequence for a Wireless Communication System”, Indian Patent Application: 201731002796, 16/12/2016, Journal No. publication date: 43, 10/02/2017.

3. Has been elected as the IEEE ComSoc Chairperson.
4. Acted as the General Chair of the International 5G Summit held in Kolkata.
5. Acted as reviewer in IEEE Transaction of Wireless Communication.
6. Acted as one of the expert members in the selection committee meeting for faculty recruitment in Tripura University on April 2016.
7. Acted as one of the expert members in the selection committee meeting for faculty recruitment in NIT Arunachal on April 2016.
8. Has been selected on the panel of external members in the Board of Postgraduate Studies in Electronics and Communication Engineering of ECE Dept., Tripura University.
9. Has been selected as the Directors Nominee of external BOS members, ECE Dept., Heritage Institute of Technology, Kolkata.
10. Had been invited as the external examiner for the evaluation of M.Tech thesis, EE Dept., NIT Rourkela, May 2016.
11. Mr. Budhaditya Battacharyya was awarded Ph.D. degree under her guidance.
12. One Ph.D. scholar Mr. Tanumay Manna has been selected for the IEEE-URSI Radio 2016 Young Scientist Award paper presentation contest and won the financial support from the organizer. This is the third consecutive years, the Ph.D. scholars under her contested the Young Scientist Award.
13. Ms. Anindita Mondal and Ms. Sudipta Bose secured the best and second best paper award respectively on Communication in ICACNI-2016 under her guidance.

**Dr. Sheli Sinha Chaudhuri**

1. Has been selected as member of the advisory board for Innovation Hub, Birla Industrial and Technological Museum.
2. One Ph.D. degree was awarded under her Supervision (as a Joint Supervisor) as per details given below:
  - Soham Sarkar with thesis title “Entropy based Image Thresholding and Object Extraction- A Differential Evolution based Approach”.

**Dr. Ananda Shankar Chowdhury**

1. Was invited for academic visit in Johann Bernoulli Institute for Mathematics and Computer Science, University of Groningen, The Netherlands on July 2016.
2. Was invited for academic visit in the Department of Information Engineering and Department of Biology, University of Padova, Italy on May 2016.
3. Serving as an Associate Editor for Pattern Recognition Letters, Elsevier.
4. One Ph.D. degree was awarded under his Supervision as per details below:
  - Gautam Bhattacharya with thesis title “A Study on Some Theoretical Variations of the kNN Algorithm”
5. Program Committee Member of MedImage-2016 held at IIT Guwahati, December 2016.
6. Program Committee Member - Computational Methods and Clinical Applications for Spine Imaging (CSI) 2016 held at Athens, Greece, October 2016.

**Dr. Sudipta Chattopadhyay**

1. Ananya Dey, Subhabrata Banerjee, **Sudipta Chattopadhyay**, “Design of improved Adaptive Equalizers using intelligent computational techniques: Extension to WiMAX system”, secured 2nd position in the IEEE Uttar Pradesh Section International Conference on Electrical, Computer and Electronics Engineering (UPCON), IIT (BHU), Varanasi, India December 9-11, 2016.



2. Nominated as Chairperson, IEEE Women in Engineering (WIE), Kolkata Section.
3. One Ph.D. degree was awarded under her Supervision as per details given below:
  - Abhijit Chandra with thesis title “Design of Hardware Efficient Multiplier-less Low-pass FIR Filter using Evolutionary Algorithms”

**Dr. Sayan Chatterjee**

1. Nominated as Secretary IEEE Kolkata section.

**Dr. Chandrima Mondal**

1. Awarded Ph.D. (Engineering) degree during August, 2016 on the Thesis entitled “Studies on Nanoscale Ge Channel MOSFETs for Analog and Logic Applications” from Calcutta University.

**Dr. Pratyusha Rakshit**

2. Awarded Ph.D. (Engineering) degree on 20<sup>th</sup> May, 2016 on the Thesis entitled “Multi-Agent Coordination in Presence of Measurement Noise” from Jadavpur University.
3. Awarded International Travel Grant to present papers in 2017 IEEE Congress on Evolutionary Computation at Donostia - San Sebastián, Spain, 2017 by IEEE Computational Intelligence Society.
4. Awarded Travel Grant to present papers in 2016 IEEE World Congress on Computational Intelligence at Vancouver Convention Center, Vancouver, Canada, 2016 by Technical Education Quality Improvement Program – TEQIP Phase II, JU.

**FOOD TECHNOLOGY & BIO-CHEMICAL ENGINEERING**

Phone : + 91-33-2414-6822  
Int. : 2457-2241/22  
H.O.D. : Prof. Uma Ghosh  
E-mail : hod@ftbe.jdvu.ac.in  
hodftbe@jadavpuruniversity.in

**1. A. Courses Offered:** Food Technology & Bio-Chemical Engineering

B. E.- 4yrs, Intake: 40/yr.

M. Tech. - 2 yrs, Intake: 8/yr.

**1. B. Number of Faculty Members:** 07 (Sanctioned posts - 15)

**2. A. Area of Research Activities:**

- Green Technologies of Extraction, Nutraceuticals, Food Engineering, Edible Oils and Frying Applications, Electronic Nose Applications in Agro Commodities
- Bioremediation, Enzyme Technology
- Bakery ,food fortification, food fermentation
- Nanotechnology, Bio-preservation, Plasma Sterilization



## 2. B. Major Research Projects:

### Prof. Runu Chakraborty

#### Ongoing:

1. Co-ordinator of UGC sponsored centre of advanced studies-Phase II project of FTBE, Dept on Nutraceuticals, functional food and microbial treatment of waste water, bioremediation.
2. Production of vinegar from low cost natural sources, UGC-BSR
3. Development of fermented soyabena meal based product, UGC-BSR
4. Study on fortification by different seeds as a bioactive source in bread, UGC-BSR
5. Development of fermented food product fortified with health beneficial ingredient of plant sources, State fellowship
6. Bioactives from the Indian plants, TEQIP-Phase II

### Prof. Uma Ghosh

#### Ongoing:

1. Studies on optimization of processing and storage conditions of some underutilized fruits for better retention of nutritional quality-UGC-BSR
2. Studies on production of cellulases by solid state fermentation: Its characterization and applications in fruit processing-RGNF-UGC
3. Studies on utilization of tamarind seeds as natural antioxidant and biosorbent for removal of heavy metal-DST-INSPIRE
4. Studies on production of laccase by solid state fermentation its characterization and application in biotechnology-NFOBC, UGC

### Dr. Paramita Bhattacharjee

**Completed: 0; Ongoing: 3**

#### Ongoing Projects:

- R&D project entitled, 'Studies on  $\alpha$ -irradiation of lutein and serotonin-melatonin rich agro-commodities for extension of shelf lives of the produces and design of novel therapeutic/food supplements using the irradiated produces', from **Department of Food Processing Industries and Horticulture, Govt. of West Bengal**, continuing since **November 2016**.
- **R&D project entitled**, 'Studies on prevention of Diabetes Mellitus, Hypercholesterolemia and Alzheimer's disease using nanoencapsulated supercritical carbon dioxide extracts of small cardamom' from Product Development & Research, from **Spices Board, Cochin, Ministry of Commerce and Industry, Govt. of India**, continuing since **July 2014**.
- **R&D project** for Irradiation Unit assisting (i) Food Processing Industries (ii) R & D in new areas of Irradiated Food (iii) Training Centre for Food Irradiation especially for Eastern & North Eastern Region, from **Ministry of Food Processing Industries, Govt. of India, New-Delhi and Department of Food Processing Industries & Horticulture, Govt. of West Bengal**; continuing since **November 2011**.

### Dr. Sunita Adhikari (Nee Pramanik)

**Completed: : Ongoing:**

**Completed: one**

- R&D project entitled, "Isolation of a Phytase Enzyme Producing Bacteria from Locally Available Fermented Foods" **funded under seed Research Grant for Faculty members by TEQIP-II**.

**Ongoing Projects: Three**

- R&D project entitled “Isolation of a Therapeutic Enzyme from Marine Bacterial Culture and its Characterization” funded by Jadavpur University.
- SERB sanctioned project on “Performance Modeling of a Combined System of Phycoremediation with a Fixed Film Bioreactor for the Treatment of Dairy Industry Waste Water”
- UGC-BSR Research Start Up Grant Project on “Isolation and Identification of a Phytase Producing Probiotic Bacteria from Jalebi Batter and its Application to Soy Milk Fermentation”

**Dr. Debabrata Bera**

**Completed: : Ongoing:**

**Completed:**

**Ongoing Projects:**

- Strategic assessment of traditional Bandel cheese and its production for economic development of local people. DST, Govt of West Bengal, Sanctioned amount, 22 Lakhs, 2017-2020.
- Traditional Fermented Foods of Ladakh Region: Standardization of Process Parameters. DST Govt of India , sanctioned amount 40.609 Lakhs, 2014-2017.

**Dr. Prasanta Kumar Biswas**

**Completed: : Ongoing:**

**Completed: One**

**Ongoing Projects: Two**

**Completed:**

- “Promotion of Bengal Aromatic Rice through improved production and processing system.” Restriya Krishi Vikas Yojana, Govt. of India. Memo Ref. No. DR/08-09-S-458(GOI)/1804/9 . Four Years. 214.30 lakh129.8 lakh for BCKV.

**Ongoing:**

- “Up gradation of market linkage network for promotion of Bengal Aromatic Rice”. Restriya Krishi Vikas Yojana, Govt. of India .Memo Ref. No. DR/S-720/13(GOWB)/868/22. Five Years.257.4 Lakh 165.8 lakh for BCKV.
- “Radiation Technology for shelf life extension of horticultural perishables”. Board of Research in Nuclear Sciences (BRNS) Govt. of India. No.35/15/07/2014-BRNS/0167. Four years. 70 lakh for component -2

**3. A. Invited Lectures Delivered/ Session Chaired:**

**Dr. Paramita Bhattacharjee**

- Invited Plenary VII talk on ‘Current Trend in Assessment of Quality of Food Products by Electronic Nose Technology’ in the 4<sup>th</sup> Technical Session of **UGC-Sponsored Seminar on Trends in Nutrition Research and its Education and its Prospect**, Gope Palace, Paschim Medinipore, organized by Department of Nutrition, Raja R.L.Khan Women’s College, on August 12-13, **2016**.

**Dr. Sunita Adhikari (Nee Pramanik)**

- Delivered lecture on Artificial Food at ABP Ananda News on 4<sup>th</sup> April,2016.
- Delivered lectures on Food Microbiology in a Workshop organized for Agricultural Marketing Officers during 6<sup>th</sup> to 10<sup>th</sup> Feb, 2017.

**Dr. Debabrata Bera**

- Invited lecture in National conference on progresses in Bioengineering in and Environmental management (NCPBEM-2017). Organized by Techno India University, 20<sup>th</sup> -21<sup>st</sup> April, 2017.
- Chaired in the Technical Session on Food & Nutrition/Agro-biotechnology/ Microbiology, in National conference on progresses in Bioengineering in and Environmental management (NCPBEM-2017). Organized by Techno India University, 20<sup>th</sup> -21<sup>st</sup> April, 2017.

**Dr. Prasanta Kumar Biswas**

1. Deliver “Bengal Science Lecture” on “Adulteration of Food and its effects on Human Health” on 24<sup>th</sup> March, 2017 at 12:00 organised by West Bengal State Council of Science & Technology.
2. Participated as a Chief Guest and deliver a lecture on “Food Adulteration” in seminar organized by Sorsuna Sujan Chakra, on 17.07.2016.
3. Participated as a Chief Guest and deliver a lecture on “Development of agro based industry for the development of rural economy”, organized by Gaighata puspa Krishi O shilpo Mela

**3. B. Seminar/Workshop/Conference/Symposium Attended:**

**Prof. Runu Chakraborty**

- Development and Quality analysis of wintermelon enriched instant dhokla mix. Sohini Ray, Utpal Raychaudhuri and **Runu Chakraborty**.
- Analysis and Quality Evaluation of hot air dried, freeze dried and microwave dried capsicum. Sushmita Saha, Sohini Ray and **Runu Chakraborty**.
- Both the papers presented in 1<sup>st</sup> Regional Science and Technology Congress 2016. Organised by Dept. of Science and technology, Govt. of West Bengal in collaboration with National Institute of Technical Teachers’ training and Research, (NITTR), Kolkata.

**Prof. Uma Ghosh**

- Ipsita Banerjee and Uma Ghosh\* Poster presentation on “statistical approach for optimization of processing parameters for osmodried amla” in International seminar on Recent Advances in Food Processing and Biotechnology” Banaras Hindu University, 2016,
- Ipsita Banerjee and Uma Ghosh\* Oral presentation on “retention of nutritive quality of amla juice by thermal treatment”, International seminar on Contemporary development on nutritional research, Barrackpore Rastraguru Surendranath College, 2017
- Modhuleena Mandal and Uma Ghosh\* Oral presentation on - Value addition to horticultural solid waste by applying it in biosynthesis of industrially important enzyme ,cellulose. International conference on solid waste management, ICOM SWM, 2016.
- Tapasi polley and Uma Ghosh\* , Oral presentation on optimization of environmental and nutritional conditions for the biosynthesis of alkaline protease by isolated strain. One day state level seminar on Rural health ecology issue of public health, nutrition and fluorosis 11 th janury, 2017
- Tapasi polley and Uma Ghosh\*, Oral presentation on utilization of agricultural waste for production of industrially important enzyme alkaline protease. UGC sponsored national seminar 2017.
- Tapsi Polley and Uma Ghosh\*, Oral presentation on Application of proteolytic enzyme in food processing. UGC Sponsored one day state level seminar 2016 on Food and nutrition safety- understanding of basic approaches for improved public health nutrition.

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- Atreyi Sarkar and Uma Ghosh \* Poster presentation on antioxidant activity of tamarind seed—a by-product of tamarind pulp in International seminar on Recent Advances in Food Processing and Biotechnology” Banaras Hindu University, 2016
- Atreyi Sarkar and Uma Ghosh\* Oral presentation on Effect Of Extraction Temperature And Technique On Phenolic Compounds And Antioxidant Activity of *Tamarindus indica* Seeds International Science Congress Association, 2016
- Atreyi Sarkar and Uma Ghosh \* Oral presentation on Food residues as a source of natural antioxidant for food safety and sustainability in International seminar on Contemporary development on nutritional research, Barrackpore Rastraguru Surendranath College, 2017
- Priyanka Ghosh and Uma Ghosh\* oral presentation on Bioconversion of agro waste to value added product through solid state fermentation by a potent fungal strain *Aspergillus flavus* PUF5. International conference on solid waste management, 6thIconSWM 2016.
- Priyanka Ghosh and Uma Ghosh\* Poster presentation — Biotechnological applications of laccase towards a green society at IIT Kharagpur. International conference on Emerging Technologies in Agricultural and Food Engineering,2016.
- Soumik Banerjee and Uma Ghosh\* Poster presentation on Optimization of SSF parameters using *Aspergillus niger* for production of Glucoamylase by RSM and Characterization of the enzyme. ICRAFPB-2016, BHU 2016.
- Soumik Banerjee, Ranu Paul, and Uma Ghosh\*, Oral presentation on Precipitation and Chromatographyfor purification of debittering enzyme by *Aspergillus niger* NCIM 612. ETAE 2016. IIT KHARAGPUR.
- Arjuma Sultana and Uma Ghosh\* Oral presentation on Anthocyanin a ..... antioxidant- A Review, International seminar on Contemporary development on nutritional research, Barrackpore Rastraguru Surendranath College, 2017

#### Dr. Paramita Bhattacharjee

- *In vitro* study on prevention of Alzheimer’s disease using 1,8-cineole-rich supercritical carbon dioxide extract of small cardamom seeds, Kaninika Paul, Munmun Pradhan, Paramita Bhattacharjee and Sasanka Chakrabarti, Oral Presentation in **International Conference on Growth, Senescence and Mortality of Neurons: From Traditional Medicine to Cutting Edge Technology (NEUROCON 2017)**, organized by Department of Biochemistry, ICARE Institute of Medical Sciences and Research, Haldia, West Bengal, Golden Retreat Hotel, Haldia, January 19-22, **2017**.
- Design of antioxidant-rich ready-to-serve beverages, Soumi Chakaborty and Paramita Bhattacharjee\*, Oral Presentation in FBPE section at **International Conference on Emerging Technologies in Agricultural and Food Process Engineering and Technology (ETAE 2016)**, organized and held at Agricultural and Food Engineering Department, IIT-Kharagpur, December 27-30, **2016**.
- Use of 1, 8-cineole-rich supercritical carbon dioxide extract of small cardamom seeds as biomedicine in mitigation of oxidative stress related disorders, Sayantani Dutta, Kaninika Paul, Paramita Bhattacharjee and Sasanka Chakrabarti, Oral Presentation in Technical Session 6 & 6a (Section Pharmacology and Biomedicine) at **International Conference on The Green Planet: Past, Present and Future**, organized by CAS Department of Botany, University of Calcutta in

collaboration with Probir Chatterjee Research Foundation & Botanical Survey of India, Ballygunge Science College, University of Calcutta, December 21-23, **2016**.

- Recent Trends in Biotechnology: Assessment of Quality of Natural Products by Electronic Nose Technology: Case Studies with Two Designer Food Products, Paramita Bhattacharjee, Special Lecture in **Short term Course on Trends in Industrial Biotechnology**, organized and held at Department of Biotechnology, National Institute of Technology (NIT), Durgapur, West Bengal, November 14-18, **2016**.
- cardamom: Process optimization and packed bed characterization, Kaninika Paul and Paramita Bhattacharjee, Oral Presentation in **1<sup>st</sup> Regional Science & Technology Congress-2016, Presidency Division, West Bengal**, organized by Department of Science & Technology, Government of West Bengal, in collaboration with National Institute of Technical Teachers' Training & Research (NITTTR), Kolkata, NITTR, Salt Lake, Kolkata, November 13-14, **2016**.
- Current trend in assessment of quality of food products by electronic nose technology, Paramita Bhattacharjee\*, Dipan Chatterjee, Probir Kumar Ghosh, H Lechat, F Ayouni, V Vabre and Nabarun Bhattacharyya, Oral Presentation in **25<sup>th</sup> Indian Convention of Food Scientists & Technologists (ICFoST-XXV), Food Processing for Sustainable Agriculture & Industry**, organized by AFST(I), Mysore, Guru Nanak Dev University, Amritsar, November 10-12, **2016**.
- Design of lutein fortified 'rice papad' with supercritical carbon dioxide extract of marigold (*Tagetes erecta* L.) flowers: Product characterization and storage study, Sayani Pal and Paramita Bhattacharjee\*, **25<sup>th</sup> Indian Convention of Food Scientists & Technologists (ICFoST-XXV), Food Processing for Sustainable Agriculture & Industry**, organized by AFST(I), Mysore, Guru Nanak Dev University, Amritsar, November 10-12, **2016**.

#### Dr. Dipankar Halder

1. Paper titled "First report on characterization of phenol and flavonoid compounds of an edible mushroom showing antimycobacterial activity." D Chatterjee, S Das, D Halder. 27th ECCMID, 2017, Vienna, Austria.
2. Paper titled "Edible mushrooms as source of natural antioxidants." D Chatterjee, S Das, D Halder. 1st Regional Science and Technology Congress, 2016, West Bengal, India.
3. Paper titled "Study on in-vitro antimycobacterial activity of an edible oyster mushroom - *Pleurotus ostreatus*". D Chatterjee, U Chakraborty, S Das, D Halder. Microcon 2016, Postgraduate Institute of Medical Education and Research, Chandigarh, India.
4. Paper titled 'Biosorption of Malachite Green from aqueous solution by *Aspergillus versicolor*(MTCC280)'. S Bag, A Bardhan, D Halder, A Mitra, D Bera. International Conference on Sustainable Energy and Environmental Challenges (SEEC-2017) Center of Innovative and Applied Bioprocessing Mohali, India, from February 26-28, 2017.
5. Paper titled 'A green chemical approach for the synthesis of silver nanoparticles and study of its catalytic and antimicrobial activity'. G Dinda, A Mitra, D Halder. National Conference on Nanotechnology: Materials and applications (NcoN:M & a) on 16<sup>th</sup> – 17<sup>th</sup> June 2016, Kolkata.
6. Paper titled 'Intracellular Biosynthesis of Gold, Silver Nanoparticles by the Fungus *Phoma glomerata* and their Spectroscopic and Microscopic Characterization'. G Dinda, A Mitra, D Halder. Second International Conference on Material Science (ICMS 2017), on 16<sup>th</sup> to 18<sup>th</sup> February, 2017, Tripura.



7. Paper titled 'Detection of Pb<sup>2+</sup> using silver nanocolloids'. S Roy, G Dinda, A Mitra , D Halder. "Reflux", annual symposium , Department of Chemical Engineering, IIT Guwahati', 24<sup>th</sup> – 26<sup>th</sup> March, 2017

**Dr. Sunita Adhikari (Nee Pramanik)**

- Participated in TEQIP II funded workshop on "Recent Advancement in Energy Harvesting and Water Treatment Technologies" at Chemical Engineering Department, Jadavpur University during 13 - 17 June, 2016
- Participated in TEQIP II Sponsored Workshop on Initiatives in Outcome Based Education and NBA Accreditation during March 6-8,2017.
- Participated in workshop on "Use of ICT in Education for Online and Blended Learning" conducted by IIT Bombay during 2<sup>nd</sup> May to 10<sup>th</sup> July, 2016.

**Dr. Debabrata Bera**

- Mukherjee, P., Bera, D. & Roy, L. Novel method of utilization of Distiller's Industry waste-it's modification for human consumption. First International Conference on Sustainable Energy and Environmental Challenges (SEEC – 2017), Feb 26 and Feb 28, 2017, at the Centre of Innovative and Applied Bioprocessing, Mohali, India. **Bagged 1<sup>st</sup> Track medal.**
- Bag, Surajit, Mitra, A. Bera, D. & Halder, D. Removal of Malachite green from aqueous solution by *Aspergillus versicolor*(MTCC280). First International Conference on Sustainable Energy and Environmental Challenges (SEEC – 2017), Feb 26 and Feb 28, 2017, at the Centre of Innovative and Applied Bioprocessing, Mohali, India.
- Chakraborty, P., Biswas, P. & Bera, D. Poster presentation in 1<sup>st</sup> Regional Science & Technology Congress 2016, Presidency Division, West Bengal, DST, W.B. 13<sup>th</sup> & 14<sup>th</sup> November, 2016.
- Bera, D. & Roy, L. E-Waste Management by Bacteria and Diatome. Presentation in RECYCLE 2016, International Conference on Waste Management, at IIT Guwahati, April 1-2, 2016.
- Roy, L., Chowdhury, B. & Bera, D. Integrated Biorefinery Model of Bioethanol Industry Waste for Human Consumption. Presentation in RECYCLE 2016, International Conference on Waste Management, at IIT Guwahati, April 1-2, 2016.
- Bera, D. & Roy, L. Exploitation of Sunderban algae for development of novel fortified food products. India International Science Festival 2016, 7-11 December, 2016, New Delhi.
- Roy, L., Chowdhury, B. & Bera, D. Indigenous Model of Exploitation of Ethanol Industry Waste for Food Industries" India International Science Festival 2016, 7-11 December, 2016, New Delhi.
- Bera, D. & Roy, L. National Seminar on Trends and Innovation in Food Processing Technology (TIFPT-2017), Feb. 9-10, 2017, Tezpur University.

**Dr. Prasanta Kumar Biswas**

1. "Study of antimicrobial properties of silvernano particles immobilized on to food packaging material" All India Seminar on "Post Harvest Management of Fruits & Vegetables" on 1<sup>st</sup> June, 2016, at Sir R.N. Mookerjee Hall, West Bengal State Centre, The Institution of Engineers (India), 8, Gokhale Road, Kolkata-700 020.



2. "Value added product: nanoencapsulation of bioactive element in Food" national seminar on New Horizons in Biotechnology-2017, Haldia Institute of Technology, Haldia 721657.
3. "Adulteration of food and Human health" International seminar on contemporary development in nutritional research, organised by IQAC and Department of Food and Nutrition, Barakpur rastraguru Surendranath College. 16<sup>th</sup> Jan' 2017
4. 'Characterisation of chromium (vi) Bioremediation using live rhizopus oryzae biomass' organised by state DST, Division of Agriculture, on 14.11.2016.

### 3. C. Seminar/Workshop/Conference/Symposium Organized:

#### Dr. Sunita Adhikari (Nee Pramanik)

- Acted as a member of Organizing committee of the Workshop for Agricultural Marketing Officers, Govt. of West Bengal during 6<sup>th</sup> – 10<sup>th</sup> Feb, 2017.
- Acted as a member of organizing committee of the Bengal Science Lecture on 16<sup>th</sup> March, 2017.
- Acted as a member of the Organizing committee of Workshop on Curriculum Revision on 21<sup>st</sup> March, 2017.

#### Dr. Prasanta Kumar Biswas

- Improvement of rural livelihood by developing agro based Industry. Farmers Training Programme. Gaighata puspakrishi Oshilpo Mela and BCKV, Govt. of West Bengal. One week(organized). Gaighata.

### 3. D. Orientation Courses/Refresher Courses Attended:

#### Dr. Prasanta Kumar Biswas

- Use of ICT in Education for Online and Blended Learning. 21 days. IIT Bombay. 2016.

### 4. E. Orientation Courses/Refresher Courses Organized:

#### Dr. Prasanta Kumar Biswas: Four departmental seminars

### 5. A. Books/Monographs etc. Published:

#### Prof. Uma Ghosh

- -Modhuleena Mndal and Uma Ghosh Value addition to horticultural solid waste by applying it in biosynthesis of industrially important enzyme, cellulose. Accepted
- Priyanka Ghosh and Uma Ghosh Bioconversion of agro waste to value added product through solid state fermentation by a potent fungal strain *Aspergillus flavus* PUF5. Accepted

#### Dr. Paramita Bhattacharjee

- Probir Kumar Ghosh, Paramita Bhattacharjee and Rekha S Singhal, **Cactus Pears**, In Genesis and Evolution of Horticultural Crops, Vol 1, KV Peter (Ed.), Kruger Brentt Publishers, Middlesex UK Ltd, pp. 93-109; **2017**, ISBN 978-1-78715-001-0 (Hardbound).
- Paramita Bhattacharjee, Probir Kumar Ghosh, Manvi Vernekar and Rekha S. Singhal, **Role of Dietary Serotonin and Melatonin in Human Nutrition**, In: *Serotonin and Melatonin: Their Functional Role in Plants, Food, Phytomedicine, and Human Health*, GA Ravishankar & A Ramakrishna (Eds.), CRC Press-Taylor & Francis Group, United States, pp. 317-333; **2016**, ISBN 978-1-4987-3905-4 (Hardback).

- Soumi Chakaborty and Paramita Bhattacharjee, **Design of Antioxidant-rich Ready-to-serve Beverages**, In Food Process Engineering and Technology, Section II: Food Process Technology, H.N. Mishra, S.L. Shrivastava, P.P. Srivastav, P.P. Tripathy and Jayeeta Mitra (Eds.), Excel India Publishers, New Delhi, pp. 403-419; **2016**, ISBN 978-93-86256-30-0.

**Dr. Sunita Adhikari (Nee Pramanik)**

- Book Chapter accepted for publication on Application of Immobilized Enzymes in Food Industry in **Elsevier's** publication titled '**Enzymes in Food Biotechnology**'

**Dr. Debabrata Bera**

- Pramanick, P, Bera, D., Zaman, S. & Mitra, S. Spatial variation of heavy metals in seaweeds inhabiting Indian Sundarbans, Environmental Coastguard. CSIR, 2017. (Chapter in edited Book).
- Mitra, A., Sudarshan, J., Bera, D. & Zaman, S. Seaweed Resource Utilization, An adaptation to climate change, Published by CSIR, 2016

**Dr. Prasanta Kumar Biswas**

- Four articles in different magazine and news paper like (sukhi grihakon, pratidine, ekdin) has been published

**5. B. Articles Published in Journals:**

**Prof. Runu Chakraborty**

- An overview of encapsulation of active compounds used in food products by drying technology. Sohini Ray, Utpal Raychaudhuri and **Runu Chakraborty**. Food Bioscience, Vol 13, p-76-83, (2016). Elsevier Publication.
- Role of Fermentation in Improving Nutritional Quality of Soybean Meal : A Review. Runni Mukherjee, Abhishek Datta, **Runu Chakraborty**. Asian- Australasian Journal of Animal Sciences. Vol. 29, No.11, November 2016, p-1523-1529.
- Study on enrichment of whole wheat bread quality with the incorporation of tropical fruit by-product. Debasmita Pathak, Jayshree Majumdar, Utpal Raychaudhuri, **Runu Chakraborty**, International Food Research Journal. Accepted on **07.04.16**.
- Characterization of physicochemical properties in whole wheat bread after incorporation of ripe mango peel. Debasmita Pathak, Jayshree Majumdar, Utpal Raychaudhuri, **Runu Chakraborty** Journal of Food Measurement and Characterization. Springer.10(1), 1-8 (2016)
- Preparation of Okra- incorporated dhokla and subsequent analysis of nutrition, antioxidant, color, moisture and sensory profile. Sohini Ray, Suman Kumar Saha, Utpal Raychaudhuri, **Runu Chakraborty** Journal of Food Measurement and Characterization. Springer. DOI.10.1007/s 11094-016-9433-x.

**Prof. Uma Ghosh**

- Modhuleena Mandal and Uma Ghosh . Statistical Optimization of Fermentation Parameters for Production of Cellulase Utilizing Banana Peel. Journal of advances in biology and biotechnology, 7(3), 1-9, 2016.
- Modhuleena Mandal and Uma Ghosh .Statistical optimization of cellulase biosynthesis by isolated cellulolytic fungi utilizing horticultural waste .Acta Biologica Szegediensis , 60(1): 39-48, 2016.

- Modhuleena Mandal and Uma Ghosh Value addition to horticultural solid waste by applying it in biosynthesis of industrially important enzyme ,cellulase. Conference proceedings- ICONSWM ,2016,
- Modhuleena Mandal and Uma Ghosh. Optimization of SSF parameters by OFAT for biosynthesis of cellulases using isolated *Aspergillus niger*. Accepted-IJCT- [NISCAIR]
- Modhuleena Mandal and Uma Ghosh. Application of Statistical Tool for Optimization of Physical Parameters for Cellulase Production Under Solid State Fermentation Accepted –IJBT- [NISCAIR]
- Tapasi polley and Uma Ghosh. Statistical optimization of alkaline protease production using isolated strain by submerged fermentation .Journal of advance in biology and biotechnology, 7 (4):1-8,2016.
- Tapasi Polley and Uma Ghosh –Conference proceedings of UGC sponsored seminar -Application of proteolytic enzyme in food processing
- Atreyi Sarkar and Uma Ghosh, Classical Single Factor Optimisation of Parameters for Phenolic Antioxidant Extraction from Tamarind Seed (*Tamarindus indica*). Plant Science Today, vol. 3, issue 3, pp.258-266, 2016
- Atreyi Sarkar and Uma Ghosh, Effect of extraction temperature and technique on phenolic compounds and antioxidant activity of *Tamarindus indica* seeds. Research Journal of Recent Sciences, vol 6, issue 2, pp 10-15, 2017
- Priyanka Ghosh and Uma Ghosh. Statistical optimization of laccase production by *Aspergillus flavus* PUF5 through submerged fermentation using agro waste as cheap substrate. Acta biologica szegendiensis. 2017(In Press).
- Priyanka Ghosh and Uma Ghosh . Bioconversion of agro waste to value added product through solid state fermentation by a potent fungal strain *Aspergillus flavus* PUF5.Conference proceedings- ICONSWM ,2016,
- Soumik Banerjee and Uma Ghosh. Production and Characterization of Glucoamylase by *Aspergillus niger*. *Applied Food Biotechnology*, 4(1), pp.19-26.2017

#### Dr. Paramita Bhattacharjee

- Soumi Chakraborty and Paramita Bhattacharjee, Supercritical carbon dioxide extraction of melatonin from *Brassica campestris*: *In vitro* antioxidant, hypocholesterolemic and hypoglycaemic activities of the extracts', **International Journal of Pharmaceutical Sciences and Research**, Accepted in January **2017**.
- Sayantani Dutta and Paramita Bhattacharjee, Nanoliposomal encapsulates of piperine-rich black pepper extract obtained by enzyme-assisted supercritical carbon dioxide extraction, **Journal of Food Engineering**, doi.org/10.1016/j.jfoodeng.2017.01.006, **2017**.
- Sayani Pal, Anupama Bose, Soumi Chakraborty, Bhawesh Kumar Roy and Paramita Bhattacharjee, Natural antibrowning agents for peeled tender coconut, **Food and Beverage World**, Accepted in January **2017**, to be published in May issue.
- Sayani Pal and Paramita Bhattacharjee, Nutraceutical food products using lutein-rich supercritical carbon dioxide extract of marigold flowers: product characterizations and storage studies, **Nutrafoods**, doi 10.17470/NF-017-1023-1, **2017**.
- Probir Kumar Ghosh, Paramita Bhattacharjee and Satadal Das, Microencapsulation of supercritical carbon dioxide extract of tuberose flowers (*Polianthes tuberosa* Linn.): Process

optimization and stability studies, **World Journal of Pharmacy and Pharmaceutical Sciences**, Accepted in December **2016**.

- Dipan Chatterjee, Probir Kumar Ghosh, Sudip Ghosh and Paramita Bhattacharjee, Supercritical carbon dioxide extraction of eugenol from tulsi leaves: Process optimization and packed bed characterization, **Chemical Engineering Research and Design**, An Official journal of the European Federation of Chemical Engineering: Part A, Accepted, November **2016**.
- Sudip Ghosh, Sayantani Dutta, Probir Ghosh, Paramita Bhattacharjee and Satadal Das, Design of a Polyherbal Mix Using SC-CO<sub>2</sub> Extraction and Encapsulation of the Same
- Using Spray Drying: Process Characterization, Phytochemical Properties and Shelf Life Study, **Journal of Food Process Engineering**, DOI 10.1111/jfpe.12505, September **2016**.
- Probir Kumar Ghosh, Paramita Bhattacharjee and Mousumi Poddar-Sarkar, Reduction of lauric acid in coconut copra by supercritical carbon dioxide extraction: Process optimization and design of functional cookies using the lauric acid-lean copra meal, **Journal of Food Process Engineering**, DOI 10.1111/jfpe.12501, September **2016**.
- Sayantani Dutta and Paramita Bhattacharjee, Microencapsulated supercritical carbon dioxide extract of small cardamom enriches nutraceutical value of custard, **Nutrafoods**, Accepted, September **2016**.
- Probir Kumar Ghosh, Paramita Bhattacharjee and Satadal Das, Extension of shelf life of tuberose flowers using combination treatment of gamma irradiation and GRAS preservatives and assessment of antimicrobial potency of senesced flowers, **Journal of Horticultural Science and Biotechnology**, Accepted in August **2016**, DOI <http://dx.doi.org/10.1080/14620316.2016.1234340>.
- Sayantani Dutta and Paramita Bhattacharjee, Microencapsulation of enzyme-assisted supercritical carbon dioxide extract of small cardamom by spray drying, **Journal of Food Measurement and Characterization**, 11: 31-319, DOI 10.1007/s11694-016-9398-9, **2016**.
- Sayani Pal and Paramita Bhattacharjee, Effect of gamma-irradiation on marigold (*Tagetes erecta* L.) cut flowers: Changes in sensory and physicochemical properties and lutein content, **Journal of Post Harvest Technology**, 4:37-49, **2016**.
- Probir Kumar Ghosh, Sabyasachi Chatterjee, Paramita Bhattacharjee and Nabarun Bhattacharyya, Removal of rancid-acrid odor of expeller-pressed virgin coconut oil by gamma irradiation: Evaluation by sensory and electronic nose technology, **Food and Bioprocess Technology**, 9:1724-1734, **2016**.
- Sayani Pal, Probir Kumar Ghosh and Paramita Bhattacharjee, Effect of packaging on shelf life and lutein content of marigold (*Tagetes erecta* L.) flowers, **Recent Patents on Biotechnology**, 10:103-120, **2016**.
- Probir Kumar Ghosh and Paramita Bhattacharjee, Antimicrobial cream formulated with supercritical carbon dioxide extract of tuberose flowers arrests growth of *Staphylococcus aureus*, **Recent Patents on Biotechnology**, 10:86-102, **2016**.
- Sayantani Dutta, Sayani Pal and Paramita Bhattacharjee, A Treatise on Three Indian Women as Scientist Entrepreneurs in Food Technology, **Everyman's Science**, an Indian Science Congress publication, 1:35-39, April-May **2016**.

**Dr. Dipankar Halder**

1. Synergistic activity of antibiotic meropenem in combination with edible mushroom extracts against multidrug resistant bacteria., D Chatterjee, S Das, D Halder. British Journal of Pharmaceutical Research, 2016; 10(6):1-7.
2. Antimicrobial activities of pharmacological and antioxidant compounds of some edible mushrooms against *Brucella* spp. D Chatterjee, U Chakraborty, D Dutta, Pr Kuila, S Das, D Halder. International Journal of Pharmaceutical Sciences and Research, 2017, 8(1): 323-329.
3. Fruit extract coated silver nanoparticles with excellent catalytic activity for methylene blue reduction . S Kumar, A Mitra, D Halder; Pending with Reviewer's Comments ,Elsevier, 2017  
Characterization of Silver Nanoparticles Synthesized using Latex of *Jatropha curcas* and *Lannea grandis*. S Kumar, A Mitra , D Halder . J. Surface Sci. Technol. 32(3-4), 115– 120, 2016
5. Study of antibacterial and catalytic activity of highly monodisperse silver nanocolloid synthesized using fruit of *Sapindus mukorossi* . G Dinda, C Vasquez Vasquez, M Lopez Quintela, A Mitra, D Halder;; Pending with Reviewer's Comments , RSC, 2017
6. Plant latex capped colloidal silver nanoparticles: A potent anti-biofilm and fungicidal formulation. S Kumar, W Bhattacharya, M Singh, A Mitra, D Halder .Journal of Molecular Liquids 230 (2017) 705–713.
7. Study on the degradation of methylene blue dye employing silver nanoparticles synthesized using *Dillenia indica* fruit extract ; M Swargiary, S Kumar, A Mitra, D Halder. Communicated, Elsevier,2017
8. Centella asiatica leaf mediated synthesis of silver nanocolloid and its application as filler in gelatin based antimicrobial nanocomposite film S Kumar, A Mitra, D Halder LWT - Food Science and Technology 75 (2017) 293-300

**Dr. Sunita Adhikari (Nee Pramanik)**

- Review paper published on Enzymes- An Existing and Promising Tool of Food Processing Industry” at Recent Patents on Biotechnology 10, 2016, 58-71
- Paper published on “Development and Characterization of Curd fortified by Pineapple Juice” at Indian Journal of Dairy Science Vol.69 (5) , 2016, 524-528..

**Dr. Debabrata Bera**

- Panda, A., Ghosh, K., Ray, M., K. Nandi, S.K., Parua (Mondal), S., Bera, D., Singh, S.N., Dwivedi, S.K. & Mondal, K.C. Ethnic preparation and quality assessment of Chhurpi, a home-made cheese of Ladakh, India. Journal of Ethnic Foods, 3 (2016) 257-262.
- Nath, J., Ray, L. & Bera, D. Continuous removal of malachite green by calcium alginate immobilized *Bacillus cereus* M1 16 in packed bed column. Environmental Technology & Innovation. 6 (2016) 132–140.

**Dr. Prasanta Kumar Biswas**

1. Thakur R., **Biswas P K**, Singh M. “Fruit wastes extract: a rich source of bioactive chemical”, RJPBCS 8 (3), May-June, p928-932.
2. Thakur R., **Biswas P K**, Singh M ‘Comparative analysis of aqueous and ethanol extracts of citrus fruit residues’ proceeding of new horizon in biotechnology-2017, (pp. 112-115), ISBN 97881927768.
3. Purkayastha A, **Biswas P K**, “Reuterine as a biopreservative in food Industries”, proceeding of new horizon in biotechnology-2017, (pp. 86-89), ISBN 97881927768.



## 6. Collaboration Programmes:

### Dr. Paramita Bhattacharjee

- Research collaboration with C-DAC, Kolkata
- Research collaboration with Dept. of Biochemistry, ICARE Institute of Medical Sciences and Research & Dr. Bidhan Chandra Roy Hospital, Haldia
- Research collaboration with Dept. of Nutrition, Vidyasagar University

### Dr. Prasanta Kumar Biswas

- One collaborative research work is going on with Dr. Anindya Chandya (Asst. Professor) University of South Carolina, USA.

## 7. Major Achievements:

### Prof. Uma Ghosh

- 2<sup>nd</sup> prize in Poster presentation on “**STATISTICAL APPROACH FOR OPTIMIZATION OF PROCESSING PARAMETERS FOR OSMODRIED AMLA**” by Ipsita Banerjee and Uma Ghosh in International seminar on Recent Advances in Food Processing and Biotechnology” Organized by Banaras Hindu University, 2016.
- Excellent paper award for the paper “Value addition to horticultural solid waste by applying it in biosynthesis of industrially important enzyme ,cellulose.” by Modhuleena Mandal and Uma Ghosh\* presented in International conference on solid waste management, ICOM SWM, 2016.

### Dr. Paramita Bhattacharjee

- Best Poster Award for Poster presentation for **the research paper entitled** ‘Application of fuzzy logic analysis in ascertaining appropriate dose of gamma irradiation for deodorization of virgin coconut oil’, in at **25<sup>th</sup> Indian Convention of Food Scientists & Technologists (ICFoST-XXV), Food Processing for Sustainable Agriculture & Industry**, by Anupama Bose and Paramita Bhattacharjee, organized by AFST(I), Mysore, Guru Nanak Dev University, Amritsar, November 10-12, **2016**.
- Best poster award for Poster presentation for **the research paper entitled** ‘Mitigation of Oxidative Stress Related Disorders using 1,8-cineole-rich Supercritical Carbon dioxide Extract of Small Cardamom Seeds’, in **One-day Symposium on ‘Recent Advances in Medical and Allied Sciences**, by Kaninika Paul, Sayantani Dutta and Paramita Bhattacharjee, organized by Central Calcutta Society for Advancement of Human Development and Research, NICED, July 21, **2016**

### Dr. Sunita Adhikari (Nee Pramanik)

- Got Early Career Research Award from Science and Engineering Research Board (SERB) in 2016
- Got UGC BSR Research Start up grant from UGC in 2016.

### Dr. Prasanta Kumar Biswas

- Participated in more than 50 awareness programme on Food Adulteration in TV Channels like, Star Ananda, 24 Ghanta, ETv Bangla, R Plus, High News, Bangle Times etc.



## INFORMATION TECHNOLOGY

### (SALT LAKE CAMPUS)

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### VISION OF THE DEPARTMENT

The department will be a leader in education of Information Technology through innovation and through novel process of dissemination of knowledge. Thus, the department will build an excellent research and teaching environment that responds swiftly to the challenges of the century. Our graduates will be leaders and innovators in industry, education, and for the 21st society at large. Our faculty will be recognized for quality of their research and will influence the national and international agenda.

### MISSION OF THE DEPARTMENT

The mission of the department is to be recognized amongst the best in the domain of Information Technology. Towards that end, our objectives are as follows:

1. To provide education at undergraduate level containing wide coverage in theory and practice starting from basic, fundamentals to emerging subjects pertaining to Information Technology.
2. To nurture and strengthen creativity
3. To raise the students' professional skills to the highest level for solving real life problems.
4. To encourage entrepreneurship.
5. To undertake research to explore the new vistas of technology.

#### 1. A. Courses Offered:

Name of the Course	Duration of the Course	Annual Intake	Year of Inception
B.E.(Information Technology)	4 years degree course	80	2000
M.E (Software Engineering)	2 year degree course	25	2002
M.E (Software Engineering) for TCS sponsored students	3 year degree course	20	2004

#### 1. B. Number of Faculty Members:

- Professor: 01 (Sanctioned: 01)
- Associate Professor: 01 (Sanctioned: 01)
- Assistant Professor: 04 (Sanctioned 05)
- Assistant Professor (Contractual): 03 (Sanctioned 06)

#### 2. A. Area of Research Activities: (Broad Area):

All teachers are actively engaged in research activities. The thrust areas of the department may be classified as follows.

- I. Image processing, Video Compression, Pattern Recognition, audio processing
- II. Distributed Object Computing, Middleware
- III. Middleware in Mobile Computing, Mobile Ad hoc Networks
- IV. Artificial Intelligence, Machine Learning
- V. Network Architecture, Routing Protocols
- VI. Parallel Processing, Cryptography, Network Security, Distributed Computing
- VII. Data Mining and Knowledge Discovery, Cloud Computing, Biodiversity
- VIII. Bioinformatics, Audio processing, RFID, Sensor Networks
- IX. Distributed Algorithms & Swarm Robotics.
- X. Mobile Computing, Vehicular Networks

**2. B. Major Research Project/Consultancy: (Name of the Project–Investigator/Coordinator–Funded Agency–Duration)**

Remote Health: A Framework for Healthcare Services using Mobile and Sensor-Cloud Technologies,–SamiranChattopadhyay [Co-Investigator]–INFORMATION TECHNOLOGY RESEARCH ACADEMY (ITRA) (A Division of Media Lab Asia) –2013 - 2017

Mobile Enabled Content Delivery–SamiranChattopadhyay [PI],Munmun Bhattacharya [Co-PI]–University Grants Commission, Government of India–2012 - 2018

Sustainable green Economies through Learning, Innovation, Networking and Knowledge exchange (gLINK)–SamiranChattopadhyay [Indian Coordinator]–EACEA under European Commission–2014 - 2018

South-east-west Mobility for Advanced Research, Learning, Innovation, Networking and Knowledge (smartLINK)–SamiranChattopadhyay [Indian Coordinator]– EACEAunderEuropean Commission–2014 - 2018

Analysis of Gene Expression–SamiranChattopadhyay[PI]–DST-PURSE II–2016 - 2018

QoS Aware Resource Brokering in Cloud Infrastructure–Samiran Chattopadhyay [PI]–University Grants Commission, Government of India–2012 - 2017

Distributed Cloud Systems–Samiran Chattopadhyay[PI], Kartick Chandra Mondal[Co-PI]–DST-PURSE II 2016 - 2018

Integration of Data Analysis and Data Mining with ERP Data Warehouse of Heterogeneous Data Generated from ERP Information System–SamiranChattopadhyay[PI]Kartick Chandra Mondal[Co-PI]–CARS, DRDO–2016 - 2018

Knowledge Discovery from Protein Interactions: Application to HIV–Kartick Chandra Mondal [PI]–Jadavpur University,Kolkata (JUResearch Grant)–2015-2017

Data Mining Algorithms for Associative Classifier and Distributed Association Rule mining: Application to Protein Interaction–Kartick Chandra Mondal [PI]–UPE – II, University Grants Commission, Government of India–2015 - 2018

Bio Inspired Clustering–ParamaBhaumik [PI]–DST-PURSE II–2016 - 2018

Designing of Combination Training Tools for Interactive Learning and Behavioral Developments of Autistic Children–Parama Bhaumik [PI]–TEQIP Phase II–August 2016

Singing Voice Synthesis–Uttam Kumar Roy [PI]–DST-PURSE II–2016 - 2018

CUDA Programming–Dr. Bhaskar Sardar [PI]Mr. Utpal Kumar Ray [Co-PI]–DST-PURSE II–2016 - 2018

Data Security–Dr. Bibhas Chandra Dhara–DST-PURSE II–2016 - 2018

### **3. A. Invited Lectures Delivered/Session Chaired:**

#### **1. Samiran Chattopadhyay**

- 1.1. Big Data: Types and Architecture, at TEQIP sponsored National Seminar on Practical Perspective towards Big Data in Cloud on July 17, 2016
- 1.2. Networks Bollywood Bikes: A case study in imagination driven research in ‘Science Lectures’ on “No Child’s Play : Appropriate Technology Development for Toy Industry” at German Consulate General, Kolkata on November 25, 2016.
- 1.3. Networks for IoT – An Intruder’s Journey in TEQIP sponsored National Seminar on IoT and Data Mining in Department of Computer Science and Engineering, Jadavpur University on March 24, 2017.

#### **2. Kartick Chandra Mondal**

- 2.1. Delivered Lecture in one day “Training Program for Non-teaching Staff Members”, program organized by TEQIP, JU in the month of May, 2016.
- 2.2. Delivered Lecture in one day “Training Program for Non-Academic Staff Members – Group B and C”, program organized by IMPACT CENTRE, JU on 19.01.2017.
- 2.3. Delivered Lecture in one day “Training Program for Non-Academic Staff Members – Group C”, program organized by IMPACT CENTRE, JU on 11.03.2017.

#### **3. Bibhas Chandra Dhara**

- 3.1. Delivered lecture on “Image Steganography” in a three day Workshop on Computational Science and Technology, 16th – 18th July, 2016, organized by College of Engineering & Management, Kolaghat
- 3.2. Delivered lecture on “Programming with MATLAB” in a one day seminar on ‘Programming with MATLAB and Documenting with LATEX’ on 8th July 2016 sponsored by TEQIP-II and organized by Dept of Information Technology, JU.

#### **4. Parama Bhaumik**

- 4.1. Delivered lecture on “Introduction to Big Data” in a 5 day Workshop on ‘Practical Perspective towards Big Data in Cloud’ on 14th July 2016 sponsored by TEQIP-II and organized by Dept of Information Technology, JU.

#### **5. Munmun Bhattacharya**

- 5.1. Delivered lecture on “Theoretical parts of Adobe Photoshop, Adobe flash player, Sound Forge” in one week workshop on “Multimedia and Distributed Software Technology in Big Data” on 18th October, 2016 sponsored by TEQIP-II and organized by Dept of Information Technology, JU.
- 5.2. Delivered lecture on “The basic concepts about object oriented languages” in a workshop “Machine Learning and Artificial Intelligence 2017” on 9th March, 2017 sponsored by TEQIP-II and organized by Dept of Information Technology, JU.

### **3. B. Seminar/Workshop/Conference/Symposium Attended**

#### **1. Uttam Kumar Roy**

- 1.1. Presented two papers at 3rd International Conference on on Computer, Electrical & Communication Engineering (ICCECE2016), December 16-17,2016, Techno India University, Kolkata, India
- 1.2. Presented a paper at Second IEEE International Conference on Research in Computational Intelligence and Communication Networks (ICRCICN 2016), September 23 - 25, 2016, Dept. of IT, RCC Institute of Information Technology, Kolkata, India
- 1.3. Presented a paper at 7th IEEE International Advanced Computing Conference (IACC2017), Hyderabad, Telengana, India, 5-7 January, 2017

#### **2. Bhaskar Sardar**

- 2.1. Attended in Three days workshop under Faculty and Staff Development Program on Initiatives in Outcome Based Education and NBA Accreditation, March 06 – March 08, 2017, Organized by TEQIP, JU at Hyatt Regency, Kolkata, India

#### **3. Kartick Chandra Mondal**

- 3.1. Attended in First International Conference on Computational Intelligence, Communications, and Business Analytics, March 24 –March 25, 2017, Organized by Calcutta Business School, Kolkata, India
- 3.2. Attended in Three days workshop under Faculty and Staff Development Program on Initiatives in Outcome Based Education and NBA Accreditation, March 06 – March 08, 2017, Organized by TEQIP, JU at Hyatt Regency, Kolkata, India
- 3.3. Presented one paper in 1st International Conference on Computer, Electrical & Communication Engineering (ICCECE 2016), December 16 – December 17, 2016, Organized by Techno India University.
- 3.4. Attended in Two Weeks Workshop on Internet of Things and Data Science, August 29 – September 09, 2016, Organized by School of Mobile Computing and Communication, Jadavpur University and Department of Computer Science and Engineering, University of Calcutta.
- 3.5. Attended one day Workshop on Technical Content Writing using LaTeX” on 29th May, 2016, in Calcutta Business School, in Technical Collaboration with CSI Kolkata Chapter.
- 3.6. Presented two papers in International Conference on Intelligent Computing and Communication, February 18-19, 2016, Organized by: Faculty of Engineering, Management and Technology, University of Kalyani, Kalyani, West Bengal, India
- 3.7. Attended one day workshop on Digital Microfluidic Biochips on August 11, 2016 at 4 PM in Department of Computer Science and Engineering, Jadavpur University.

#### **4. Munmun Bhattacharya**

- 4.1. Attended one day seminar under TEQIP-II on “Programming with MATLAB and documenting with LATEX “, 8th July, 2016 in Jadavpur University.
- 4.2. Attended one week workshop under TEQIP-II on “Practical Perspective towards Big Data in Cloud “, 11-16 July, 2016 in Jadavpur University.
- 4.3. Attended workshop under TEQIP-II on “Initiatives in Outcome Based Education and NBA Accreditation “, 6-8 March, 2017 organized by Jadavpur University.

**3. C. Seminar/Workshop/Conference/Symposium Organized: (Name of the Teacher, Name of the Paper Presented, if any, Name of the Seminar, Place, Duration)**

1. Dr. Bhaskar Sardar has been a Member of Technical Program Committee in
  - a. iNIS 2016
  - b. Organized a one day seminar on “Internet-of-Things (IoT) Ecosystem and Applications” on March 28, 2017 at Department of Information Technology, Jadavpur University.
2. Professor Samiran Chattopadhyay has been a Member of Technical Program Committee in
  - a. 10th IEEE International Conference on Advanced Networks and Telecommunications Systems, IEEE ANTS, 2016
  - b. 2nd International Doctoral Symposium on Applied Computation and Security Systems (ACSS)2016
  - c. 85<sup>th</sup> IEEE Vehicular Technology Conference, IEEE VTC 2017
  - d. 12<sup>th</sup> International Conference on Information Systems Security, ICISS 2016
3. Prof. Samiran Chattopadhyay coordinated the following courses.
  - a. Data Structures and Algorithms, a 50-hour course held during January – April, 2016 organized by Department of Information Technology and Project IMPACT, Jadavpur University
4. Dr. Kartick Chandra Mondal has been a Member of Technical Program Committee in First International Conference on Computational Intelligence, Communications, and Business Analytics
5. Dr. Kartick Chandra Mondal coordinated the following programme:
  - a. One Day Workshop on Curriculum Revision on Information Technology on 11/03/2017 at Jadavpur University, Salt Lake Campus
  - b. Two Days Workshop on Machine Learning and Artificial Intelligence (MLAI 2017) from 09/03/2017 to 10/03/2017 at Jadavpur University, Salt Lake Campus
  - c. One Week Workshop on Multimedia and Distributed Software Technology in Big Data (MDSTBD 2016) from 17/10/2016 to 21/10/2016 at Jadavpur University, Salt Lake Campus
  - d. One week workshop on “Practical Perspective towards Big Data in Cloud” on 11th - 16th July 2016 at Jadavpur University, Salt Lake Campus.
  - e. One day seminar on “Programming with MATLAB and Documenting with LATEX” on 8th July 2016 at Jadavpur University, Salt Lake Campus
6. Ms. Munmun Bhattacharya coordinated the following programme:
  - a. Two Day Workshop on “Working with Git, gitHub and Open Source Software Tools (GHOSST)” from March 30th to 31st, 2017 under TEQUIP-II at Jadavpur University, Salt Lake Campus

**4. A. Books/Monographs/Book Chapters Published:**

1. Uttam Kumar Roy, “Caching and Load Balancing in Middleware-based Object Systems”, LAMBERT Academic Publishing, Heinrich-Böcking-Straße 6, 66121 Saarbrücken, Germany | 221 Pages | 54 figures | ISBN: 978-3-659-95609-6 | First edition published in November 9, 2016
2. Uttam Kumar Roy, “Distributed Object Caching In CORBA”, LAMBERT Academic Publishing, Heinrich-Böcking-Straße 6, 66121 Saarbrücken, Germany | 90 Pages | 217 figures | ISBN: 978-3-330-02060-3 | First published in Jan 18, 2017
3. Uttam Kumar Roy, AyanChatterjee, “Protein Structure Prediction And Algorithms To Minimize Docking Energy”, LAMBERT Academic Publishing, Heinrich-Böcking-Straße 6, 66121 Saarbrücken,

Germany | 206 Pages | 217 figures | ISBN: 978-3-330-00156-5 | First published in November 11, 2016

4. Uttam Kumar Roy, "Source-Initiated Routing to Support Large-Scale Pseudo-Linear ZigBee Networks", J.K. Mandal et al. (eds.), Proceedings of the First International Conference on Intelligent Computing and Communication, Advances in Intelligent Systems and Computing, Vol. 458, ISBN: 978-981-10-2034-6, pp 645-653, DOI 10.1007/978-981-10-2035-3\_65, Chapter 65, Springer Singapore 2017
5. Uttam Kumar Roy, "Introspecting Effect of Packet Size on End-to-end Network Delay", J.K. Mandal et al. (eds.), Proceedings of the First International Conference on Intelligent Computing and Communication, Advances in Intelligent Systems and Computing, Vol. 458, ISBN: 978-981-10-2034-6, pp 127-135, DOI 10.1007/978-981-10-2035-3\_14, Chapter 66, Springer Singapore 2017

#### **4. B. Articles Published in Journals/Conferences (National/International/Peer-reviewed):**

##### **Prof. Samiran Chattopadhyay**

1. Sandip Roy, Santanu Chatterjee, Ashok Kumar Das, Samiran Chattopadhyay, Saru Kumari, and Minh Jo, Chaotic Map-based Anonymous User Authentication Scheme with User Biometrics and Fuzzy Extractor for Crowdsourcing Internet of Things, accepted in IEEE IoT
2. Raja Karmakar, Samiran Chattopadhyay, Sandip Chakraborty, Smart LA: Reinforcement Learning-based Link Adaptation for High Throughput Wireless Access Networks, accepted in Computer Communications, Elsevier [SCI IF 2.02]..
3. Vanga Odelu, Soumya Banerjee, Ashok Kumar Das, Samiran Chattopadhyay, Saru Kumari, Xiong Li, Adrijit Goswami, A Secure Anonymity Preserving Authentication Scheme for Roaming Service in Global Mobility Networks, accepted in Wireless Personal Communications, 2017. [SCI]
4. Santanu Chatterjee, Sandip Roy, Ashok Kumar Das, Samiran Chattopadhyay, Neeraj Kumar, Alavalpati Goutham Reddy, Kisung Park, Youngho Park, On the Design of Fine Grained Access Control With User Authentication Scheme for Telecare Medicine Information Systems, accepted in IEEE Access, 2017 [SCI]
5. Diptangshu Pandit, Li Zhang, Chengyu Liu, Samiran Chattopadhyay and Nauman Aslam, A lightweight QRS detector for single lead ECG signals using a Max-Min Difference algorithm, accepted in Computer Methods and Programs in Biomedicine, Elsevier, Available online 18 March 2017. [SCI]
6. Shilpi Bose, Chandra Das, Samiran Chattopadhyay, A Bicluster-Based Sequential Interpolation Imputation Method for Estimation of Missing Values in Microarray Gene Expression Data, accepted in Current Bioinformatics, Bentham Science, (SCI Indexed),.
7. Santanu Chatterjee, Sandip Roy, Ashok Kumar Das, Samiran Chattopadhyay, Neeraj Kumar, and Athanasios V. Vasilakos, Secure Biometric-Based Authentication Scheme using Chebyshev Chaotic Map for Multi-Server Environment, accepted in IEEE Transactions in Secured and Dependable Computing, 2016 [SCI].
8. Subhas Barman, Samiran Chattopadhyay, Debasis Samanta, Gaurang Panchal, Biometric-Based Secure Key-Exchange Protocol Using Biometrics of Sender and Receiver, accepted in Computers and Electrical Engineering Journal, Elsevier [SCI], Available online 21 November 2016.
9. Santanu Chatterjee, Sandip Roy, Samiran Chattopadhyay, An Efficient Fine-grained Access Control Scheme for Hierarchical Wireless Sensor Networks, in Press, International Journal of Ad Hoc and Ubiquitous Computing, Inderscience Publication [SCI Indexed]



10. Saswati Mukherjee, Matangini Chattopadhyay, Samiran Chattopadhyay, and Pragma Kar, Wormhole Detection Based on Ordinal MDS Using RTT in Wireless Sensor Network, Journal of Computer Networks and Communications, Hindawi Publishing Corporation Volume 2016 (2016), Article ID 3405264[Scopus]
11. Chandra Das, Shilpi Bose, Matangini Chattopadhyay and Samiran Chattopadhyay, A Novel Distance based Iterative Sequential KNN Algorithm for Estimation of Missing Values in Microarray Gene Expression Data, International Journal of Bioinformatics Research and Applications, Inderscience Publishers, in press. [Scopus Indexed]
12. Arnab Mitra, Anirban Kundu, Matangini Chattopadhyay, Samiran Chattopadhyay, A Cost-efficient One Time Password-based Authentication in Cloud Environment using Equal Length Cellular Automata, in Press, Journal of Industrial Information Integration, Elsevier. [Scopus]
13. Raja Karmakar, Samiran Chattopadhyay, and Sandip Chakraborty, "Channel Access Fairness in IEEE 802.11ac: A Retrospective Analysis and Protocol Enhancement", in proc. of the 14th ACM International Symposium on Mobility Management and Wireless Access (ACM MOBIWAC 2016) - Poster paper at the 19th ACM International Conference on Modeling, Analysis and Simulation of Wireless and Mobile Systems (ACM MSWiM 2016), Malta, November 13-17, 2016
14. Raja Karmakar, Samiran Chattopadhyay, and Sandip Chakraborty, "Dynamic Link Adaptation in IEEE 802.11ac: A Distributed Learning Based Approach", in proc. of the 41st Annual IEEE Conference on Local Computer Networks (IEEE LCN 2016), Dubai, UAE, November 07-10, 2016 [CORE Ranking A]
15. Sandip Chakraborty; Dipti Dash; Debarshi Kumar Sanyal; Samiran Chattopadhyay; Matangini Chattopadhyay Game-Theoretic Wireless CSMA MAC Protocols: Measurements from an Indoor Testbed, in proc. of the 35th Annual IEEE International Conference on Computer Communications (IEEE INFOCOM 2016) - Poster Paper, San Fransisco, CA, USA, April 10-15. [CORE Ranking A\*]
16. Gurman Bhalla, Raja Karmakar, **Sandip Chakraborty**, and Samiran Chattopadhyay, "CrowdAP: Crowdsourcing Driven AP Coordination for Improving Energy Efficiency in Wireless Access Networks", accepted in proc. of the IEEE International Conference on Communications (IEEE ICC 2016) - Green Communications Systems and Networks, Kuala Lumpur, Malaysia, May 23-27, 2016 [CORE Ranking A]
17. Raja Karmakar, Samiran Chattopadhyay, and Sandip Chakraborty, Linkcon: Adaptive Link Configuration over SDN Controlled Wireless Access Networks, accepted in MobiHoc, 2017
18. Hindol Bhattacharya, Samiran Chattopadhyay, Matangini Chattopadhyay and Avishek Banerjee. A Novel Intelligent Modeling of Storage and Bandwidth constraints in Distributed Storage Allocation, accepted in the First International Conference on Computational Intelligence, Communications, and Business Analytics (CICBA-2017) to be published in CCIS, Springer.
19. Saswati Mukherjee, Matangini Chattopadhyay, Samiran Chattopadhyay, and Pragma Kar, EAER-AODV: Enhanced Trust Model Based on Average Encounter Rate for Secure Routing in MANET, accepted in ACSS 2017, to be published as a book chapter in Springer AISC series.
20. Sriyanjana Adhikary, Samiran Chattopadhyay and Sankhayan Choudhury, A Novel Bio-inspired Algorithm for increasing Throughput in Wireless Body Area Network (WBAN) by Mitigating Inter-WBAN, accepted in ACSS 2017, to be published as a book chapter in Springer AISC series.

**Dr. Uttam Kumar Roy**

1. Anshu Bhuwania, Pritam Subba, Uttam Kumar Roy, "Positioning WiFi Access Points Using Particle Swarm Optimization", 2016 Second IEEE International Conference on Research in Computational Intelligence and Communication Networks (ICRCICN), pp 112-115
2. Hemanta Dey, Uttam Kumar Roy, "Performance Analysis of Encrypted Data Files By Improved RC4 (IRC4) and Original RC4", Proc. Of 3rd International Conference on Computer and Communication Technologies, IC3T-2016, Nov 5-6, 2016, Springer Nature Singapore Pte Ltd. 2018, S.C. Satapathy et al. (eds.), Data Engineering and Intelligent Computing, Advances in Intelligent Systems and Computing 542, pp 513-519, DOI 10.1007/978-981-10-3223-3\_50
3. Ayan Chatterjee, Uttam Kumar Roy and Dinesh Halder, "Protein Active Site Structure Prediction Strategy and Algorithm", Journal of Current Engineering and Technology E-ISSN 2277 – 4106, P-ISSN 2347 – 5161, Vol.7, No.3, June 2017), pp 1092-1096
4. Uttam Kumar Roy, "A Survey on Effect of Framing and Bit-Error on Packet Delay", 5th International Conference on Connected Vehicles and Expo (ICCVE), Sept. 12-16, 2016, Seattle, WA, USA, Accepted,
5. Uttam Kumar Roy, "Instrumental Bengali Music Synthesis from Transcription with Indian Percussion Instruments", 2016 IEEE International Conference on Computer, Electrical & Communication Engineering (ICCECE2016), Kolkata, India, December 16-17,2016, Techno India University, In Press
6. Subhajyoti Barman, Uttam Kumar Roy, "A Novel Bengali Text-to-Speech System to Achieve Both Intelligibility and Naturalness Using a Small Voice Database", 2016 IEEE International Conference on Computer, Electrical & Communication Engineering (ICCECE2016), Kolkata, India, December 16-17,2016, Techno India University, In press
7. Ayan Chatterjee, Uttam Kumar Roy and Nibedita Pahari, "Advancement of Fixed Net Broadband connection in Copper and Hybrid Fiber with VDSL and GIGA COAX", Communications on Applied Electronics, July 2016, Vol. 5(7), pp 22-28, DOI: 10.5120/cae2016652320
8. Ayan Chatterjee, Uttam Kumar Roy, "Advancement of Fixed Net Tele Communication and Different Services", 3rd INTERNATIONAL CONFERENCE ON OPTO-ELECTRONICS AND APPLIED OPTICS, 2016(OPTRONIX-2016), Accepted
9. Uttam Kumar Roy, "A Introspection on Effect of Framing and Bit-Error on Packet Delay", 7th IEEE International Advanced Computing Conference (IACC2017), Hyderabad, Telengana, India, 5-7 January, 2017, In press
10. Uttam Kumar Roy, "A Introspection on Effect of Framing and Bit-Error on Packet Delay", International Conference on Computer and Applications(ICCA'16), September 14-15, 2016, Dubai, United Arab Emirates, Accepted
11. Subhas Acharya, Uttam Kumar Roy, "Optimization of Weather Radar Network using PSO", 7th IEEE International Advanced Computing Conference (IACC2017), Hyderabad, Telengana, India, 5-7 January, 2017, In Press
12. Uttam Kumar Roy, "Transcription to Instrumental Music Synthesis with Tabla", 2016 IEEE International Conference on Signal and Image Processing(ICSIP2016), Beijing, China, August 13-15,2016, North China University of Technology, Accepted

13. Anshu Bhuwania, Pritam Subba, Uttam Kumar Roy, “Intelligent Placement of WiFi Access Points Using PSO”, 24th International Conference on Software, Telecommunications and Computer Networks(SoftCom 2016), September 22-24, 2016, Split, Croatia, Accepted
14. Uttam Kumar Roy, “Synthesizing Instrumental Music from Transcription with Tabla”, International Conference on Multimedia Systems and Signal Processing (ICMSSP 2016), September 3-5, 2016 Tamkang University (TKU), New Taipei, Taiwan, Accepted

**Dr. Parama Bhaumik**

1. Jayanta Basak ,Somprakash Bandyopadhyay , Parama Bhaumik , Siuli Roy “Cultivating Online Communities of Practice as Rural Knowledge Management Strategy in India” accepted in **18th European Conference on Knowledge Management (ECKM 2017)**
2. Swarna Kamal Paul ,Parama Bhaumik “A Fast Universal Search by Equivalent Program Pruning” IEEE International Conference on Advances in Computing, Communications and Informatics ICACCI 2016 Jaipur, India during September 21-24, 2016. **INSPEC Accession Number: 16429778 DOI:10.1109/ICACCI.2016.7732087****Publisher: IEEE**
3. Mayukh Mukhopadhyay,Parama Bhaumik “3D Perception Of Maximum Density Zone On Ramahandran plots For ZIKA Virus protein structures” , Int. Journal. of Adv. Researches. (IJAR) 4 (5). 1076-1086 (ISSN 2320-5407) ;(2016).
4. Subhra Pramanik, Chhanda Roy Parama Bhaumik “A Review On Security Approaches Where Data Are Distributed In Nature” in International Conference on Innovative Research in Applied Physics, Material Sciences, Instrumentation, Electronics, Communication, Electrical, Power Control, Computer Science and Information Technology (TECHNOVA-2016) Gauhati, Assam, India, 22nd and 23rd December, 2016, published in Advances in Computer Science and Information Technology (ACSIT), p-ISSN: 2393-9907; e-ISSN: 2393-9915; Volume 3, Issue 6; October-December, 2016, pp.486-491,©KrishiSanskritiPublications, <http://www.krishisanskriti.org/Publication.html>
5. Smritikona Barai, Simson Naskar and Parama Bhaumik “Trust Based Security Model (TSM) for Opportunistic Networks” CCSN 2016 IEEE-EDS Kolkata Chapter Sponsored 5th International Conference on Computing, Communication and Sensor Network 24th and 25th of December, 2016 , Kolkata, India.
6. Ryan Saptarshi Ray, PrasunBhattacharjee, Utpal Kumar Ray, Parama Bhaumik, “Real- time Low Latency Data Processing using STM”, published in Conference Proceedings of 4th International Conference on Recent Trends in Communication and Computer Networks (ComNet2016), Bangalore, 12th November 2016, pp 136-142.
7. Swarna Kamal Paul , Parama Bhaumik “AIDCOR: artificial immunity inspired density based clustering with outlier removal” , International Journal of Machine Learning and Cybernetics, Springer Berlin Heidelberg, DOI 10.1007/s13042-016-0499-x , Print ISSN 1868-8071, Online ISSN 1868-808X, 2016,pp 1-26
8. Ryan Saptarshi Ray, Utpal Kumar Ray, AshishAnand, Dr. Parama Bhaumik , “Distributed Shared Memory – A Survey and Implementation Using Openshmem”, Int. Journal of Engineering, Research and Applications [www.ijera.com](http://www.ijera.com) ISSN: 2248-9622, Vol. 6, Issue 2, (Part - 1) 2016, pp.49-52
9. Rudranath Banerjee, Souvik Dey, Parama Bhaumik “ Design and Application of an Automated Tool for Facing Autistic Challenges”,International journal of E-learning and Educational Technologies in the digital Media IJEETDM, ISSN 2410-0439 (Online) (vol.2, No.1) 2016, pg 25-30

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**Mr. Utpal Kumar Ray**

1. Utsab Ray, Tapan Kumar Hazra, Utpal Kumar Ray, “Matrix Multiplication using Strassen’s Algorithm on CPU & GPU”, published in International Journal of Computer Sciences and Engineering (IJCSE) E-ISSN: 2347-2693 Volume 4, Issue 10, October 2016, pp 98-105
2. Ryan Saptarshi Ray, Prasun Bhattacharjee, Utpal Kumar Ray, Parama Bhaumik, “Real- time Low Latency Data Processing using STM”, published in Conference Proceedings of Fourth International Conference on Recent Trends in Communication and Computer Networks(ComNet 2016), Bangalore, 12th November 2016, pp 136-142
3. Aritro Sengupta and Utpal Kumar Ray, “Message mapping and reverse mapping in elliptic curve cryptosystem”, published online in Wiley Online Library (wileyonlinelibrary.com). DOI: 10.1002/sec.1702, Vol 19, Issue 18, Dec 2016, pp 5363-5375
4. Debendranath Das, Ryan Saptarshi Ray, Utpal Kumar Ray, “Implementation and Consistency Issues in Distributed Shared Memory”, published in International Journal of Computer Sciences and Engineering (IJCSE) E-ISSN: 2347-2693 Volume 4, Issue 12, December 2016, pp 125-131
5. Dipanjan Das and Utpal Kumar Ray, “Multimodal Learning Using Deep Learning For Image Captioning”, published in 5th International Conference on 'Computing, Communication and Sensor Network' (CCSN2016), Kolkata, Dec 2016, pp 46-51.

**Bibhas Chandra Dhara**

1. Saiyed Umer and B. C. Dhara and B. Chanda, “A Novel Palmprint Recognition System using Patch Based Filter Response”, In IEEE International Conference on Identity, Security and Behavior Analysis (ISBA 2017), (accepted).
2. Priyajit Biswas, Shyamalendu Kandar, Bibhas Chandra Dhara, “A Novel Image Encryption Technique using One Dimensional Chaotic Map and Circular Shift Technique”, In 6th International Conference on Software and Computer Applications (ICSCA 2017), pp. 112 — 116.
3. Shyamalendu Kandar and Bibhas Chandra Dhara, “A (k, n) Multi secret sharing scheme with updated secret shadows”, In Second International Conference on Computing and Communication System (I3CS-2016), (accepted).
4. R. Ghosal and A. Roy and B. C. Dhara and S. K. Parui, “Text Recognition from Scene Images through Tesseract OCR Engine”, In International Conference on Advanced Computing and Intelligent Computing, (accepted), 2016.
5. C. Maiti and B. C. Dhara, “A Grayscale Watermark Technique using Sub-sampling and Singular Value Decomposition”, In IEEE 2016 International Conference on Wireless Communications, Signal Processing and Networking, pp. 1555 — 1560, 2016.
6. C. Maiti and B. C. Dhara, “A New Audio Watermarking Technique Based on Empirical Mode Decomposition and Quantization”, In IEEE 2016 International Conference on Computing, Communication and Sensor Network, pp. 177 —182, 2016.
7. Saiyed Umer and B. C. Dhara and B. Chanda, “A novel cancelable iris recognition system based on feature learning techniques”, Information Sciences, pp. 102-118, 2017.
8. Saiyed Umer and B. C. Dhara and B. Chanda, “An Iris Recognition System Based on Analysis of Textural Edgeness Descriptors”, IETE Technical Review, pp. 1-12.
9. Sujit Kumar Das and B. C. Dhara, “Arithmetic coding based secret image sharing with inverted pattern LSB substitution for share hiding to achieve better quality stego images”, In International Journal of Computers and Applications, 38(2-3), pp. 134-143.



10. R. Ghosal and A. Roy and B. C. Dhara and S. K. Parui, "Recognition of Bangla Text from Outdoor Images using Decision Tree Model", *KES Journal: International Journal of Knowledge-Based and Intelligent Engineering Systems*, pp. 29-38, 2017

#### **Munmun Bhattacharya**

1. M. Bhattacharya, Nasreen Nesa "An Algorithm for Predicting Local Trust Based on Trust Propagation in Online Social Networks", *IJCA (0975 – 8887) Volume 156 – No 7, December 2016*, pp8-15.
2. M. Bhattacharya, Bratati Hui "Securing Social Network Graph against Structural Attack based on Ant Colony Optimization", *IJCA (0975 – 8887) Volume 167 – No 9, June 2017*, pp21-26.

#### **Bhaskar Sardar**

1. M. K. Rana, B. Sardar, S. Mandal, D. Saha, "Implementation and performance evaluation of a mobile IPv6 (MIPv6) simulation model for ns-3", *Simulation Modeling Practice and Theory*, vol. 72, pp. 1-22, March 2017.
2. S. S. Ray, S. Ghosh, B. Sardar, "An SRAM-based novel hardware architecture for longest prefix matching for IP route lookup", *Photonic Network Communications*, vol. 32, issue 3, pp. 359-371, December 2016.
3. M. K. Rana, S. Mandal, B. Sardar, D. Saha, "Performance Analysis of Mobile IPv6 under Spectrum Mobility in Cognitive Radio (CR) Networks", *International Journal on Advances in Telecommunications*, Vol. 9, no. 3, pp. 55-67, 2016
4. M. Das, B. Sardar, A. Banerjee, "A framework for branch predictor selection with aggregation on multiple parameters", Accepted in *VLSI Design and Test Symposium (VDATE) 2017*.

#### **Kartick Chandra Mondal**

1. Anindita Sarkar, Samiran Chattopadhyay, Madhupa Sanyal and Kartick Chandra Mondal, "Comparative Analysis of Structured and Un-structured Databases.", First International Conference on Computational Intelligence, Communications, and Business Analytics (CICBA 2017), Kolkata, India
2. Neepa Biswas, Samiran Chattopadhyay, Gautam Mahapatra, Santanu Chatterjee and Kartick Chandra Mondal, "SysML based Conceptual ETL Process Modeling.", First International Conference on Computational Intelligence, Communications, and Business Analytics (CICBA 2017), Kolkata, India
3. Kartick Chandra Mondal, Sayan Bhattacharya, Anindita Sarkar, "A Suffix Tree based Parallel Approach for Association Rule Mining and Biclustering." 1st International Conference on Computer, Electrical & Communication Engineering (ICCECE 2016), Kolkata, India
4. Debasmita Pal, Anindita Sarkar, Kartick Chandra Mondal, "Knowledge Discovery From HIV-1-Human PPIs Assimilating Interaction Keywords." 1st International Conference on Computer, Electrical & Communication Engineering (ICCECE 2016), Kolkata, India
5. Kartick Chandra Mondal, Ankur Paul, Anindita Sarkar, "Complete Review on Optimality of Suffix Data Structure." 1st International Conference on Intelligent Computing and Communication (ICIC2 2016), Kalyani, Nodia
6. Soumyadeep Basu Chowdhury, Debasmita Pal, Anindita Sarkar, Kartick Chandra Mondal, "Closure Based Integrated Approach for Associative Classifier." 1st International Conference on Intelligent Computing and Communication (ICIC2 2016), Kalyani, Nodia

7. Kartick Chandra Mondal, Sayan Bhattacharya, Anindita Sarkar, “Comparative Study of Parallelism on Data Mining.” 1st International Conference on Intelligent Computing and Communication (ICIC2 2016), Kalyani, Nodia

**Sruti Gan Chaudhuri**

1. Giuseppe Antonio Di Luna, Paola Flocchini, SrutiGanChaudhuri, Federico Poloni, Nicola Santoro, Giovanni Viglietta, “Mutual visibility by luminous robots without collisions”. *Journal Information and Computation*, Volume 254, Part 3, June 2017, Pages 392–418
2. Durjoy Dutta, Tandrima Dey, Sruti Gan Chaudhuri, “Gathering Multiple Robots in a Ring and an Infinite Grid”. *Distributed Computing and Internet Technology - 13th International Conference, {ICDCIT} 2017, Bhubaneswar, India, January 13-16, 2017, Proceedings*

**6. Collaborative Programs :**

- Professor Samiran Chattopadhyay works with Indian Institute of Technology, Kharagpur and Indian Statistical Institute and with Bengal Science and Engineering University for joint research works leading to a Ph.D.
- Dr. Bibhas Chandra Dhara is an investigator of a research project jointly supervised and funded by Indian Statistical Institute, Calcutta.
- Dr. Parama Bhaumik and Dr. Uttam Kumar Roy works with faculty of Indian Institute of Management, Calcutta on joint research projects leading to a Ph.D.
- Dr. B. Sardar works with Prof. D. Saha of IIM Kolkata, Dr. Swarup Mandal of Wipro, and Surajit Ghosh of IEST Shibpur, Dr. Ansuman Banerjee of ISI Kolkata on joint research.

**7. Major Achievements :**

- Professor Samiran Chattopadhyay has visited many institutes as an expert member in NBA teams.
- Professor Samiran Chattopadhyay has attended the 2nd Physical meeting of Smart Link programme at Dabang Vitenam in 2017..
- Uttam Kumar Roy has won the Best paper (title-Instrumental Bengali Music Synthesis from Transcription with Indian Percussion Instruments) award in IEEE International Conference on Computer, Electrical & Communication Engineering (ICCECE2016) organized by Techno India University, Kolkata held in December 16-17,2016.
- Uttam Kumar Roy and others have won the Best paper (title-Instrumental Bengali Music Synthesis from Transcription with Indian Percussion Instruments) award in IEEE International Conference on Computer, Electrical & Communication Engineering (ICCECE2016) organized by Techno India University, Kolkata held in December 16-17,2016.
- Dr. Sruti Gan Chaudhuri has visited University of Ottawa, Canada (10-18, October 2015).as a Visiting Researcher (Funded by University of Ottawa).



## Annual Report 2016-17

**INSTRUMENTATION & ELECTRONICS ENGINEERING****(SALT LAKE CAMPUS)**

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**1. A. Courses Offered:**

<b>Name of the Course</b>	<b>Duration</b>	<b>Year from which the Course Started</b>	<b>Total Intake</b>	<b>No. of Students Enrolled</b>
Bachelor of Instrumentation & Electronics Engineering	4 Years	1989	41	41
Bachelor of Technology in Instrumentation and Electronics Engineering	3 Years	1966	20	18
Master of Technology in Instrumentation and Electronics Engineering	2 Years	2001	08	08
Ph.D.		1966		19

**1. B. Number of Faculty Members:**

<b>Professor(s)</b>	<b>Associate Professor(s)</b>	<b>Assistant Professor(s)</b>
Subhankar Bandyopadhyay	Kalyan Majumdar	Runu Banerjee.
Ardhendu Ghoshal	Kumardeb Banerjee	Prolay Sharma
Rajib Bandyopadhyay	Bhaswati Goswami	Ravi Kumar Pandit
Bivas Dam	Ratna Ghosh	Abhjit Chandra
Rajanikanta Mudi	Bipan Tudu	

**2. A. Area of Research Activities:**

- |                                 |   |
|---------------------------------|---|
| i) Signal Processing            | ii) Digital System Design                           |
| iii) Intelligent Control        | iv) Electronic Olfaction and Taste Characterization |
| v) Embedded Systems             | vi) Sensor Design                                   |
| vii) Control System             | viii) Filtering and estimation                      |
| ix) Bio-medical instrumentation | x) Spectroscopic Instrumentation                    |

**2. B. Major Research Projects:(Name of the Project–Investigators–Funding Agency–Amount (Rs. Lakhs)–Duration)**

Development of sucrose sensor for phenotyping of soil moisture-deficit stress tolerance in rice–Prof. Rajib Bandyopadhyay–ICARGovt. of India–52.006–2013-2016

Development of electronic nose with QCM sensors–Dr. B. TuduMr. P Sharma–UGC, Govt. of India–10.3–2013-2016

Design of two-axis direct-drive tracking mechanism–Dr. Kumardeb Banerjee, Dr. Bivas Dam, Prof. Dipankar Sanyal, Dr. Rana Saha, Dr. Saikat Mookherjee, Mr. Kalyan Majumdar, Prof. Sanjib Acharya–ITR Balasore, Govt. DRDO, of India–10.00–2014 - 2016

Study of annihilation of electron-positron in a penning trap to explore its use as a source of energy for propulsion–Dr. Arghya Nandi, Prof. Sumanta Neogy, Prof. Kumardeb Banerjee.–ITR Balasore, DRDO, Govt. of India–23.46 –2014-2016

Development of near infrared spectroscopy (NIRS) based method for real-time estimation of the biochemical quality parameters during tea processing–Prof. Rajib Bandyopadhyay–National Tea Research Foundation, Tea Board, Govt. of India–22.00–2016-2018

Development of potentiostat system for electrochemical applications–Prof. Rajib Bandyopadhyay–Department of Science and Technology, Govt. of India–35–2016-2018

Development of QCM gas sensors for quality monitoring of agro products –Dr. Prolay Sharma–Department of Science and Technology, Govt. of India–38–2016-2018

Modeling, Characterization and control of a Fast Steering Mirror Assembly–Prof. Kumardeb Banerjee. –DRDO, Gov of India –22–2016-2018

Development of sensing system for residual pesticide and harmful chemical detection in fruits and vegetables–Prof. Rajib Bandyopadhyay–R.D. Tata Trust–19.65–2016-2018

**3. A. Invited Lectures Delivered/ Sessions Chaired:**

- i) Prof. Rajib Bandyopadhyay was invited to deliver a lecture on “Data processing on sensor array signals” at ITMO University, Saint Petersburg, Russia on April 21, 2016.
- ii) Prof. Rajib Bandyopadhyay was invited to deliver the 13th Prof. J K Choudhury Memorial Lecture at the Institute of Engineers (India), West Bengal State Centre on 13th June 2016.
- iii) Prof. Rajib Bandyopadhyay was invited to chair a session in the Research Scholars Colloquium on 24th August, 2016 at IEST, Shibpur.
- iv) Prof. Kumardeb Banerjee was invited to deliver a lecture on Control of tracking systems Continuing Education Program on “Optical Tracking for Evaluation of Weapon System” at Integrated Test Range, Balasore, Orissa, DRDO on 31.08.2016
- v) Prof. Rajib Bandyopadhyay was invited to deliver a lecture “Electronic nose and tongue: a new paradigm in sensing technology” in the Short term course on Micro Sensors & Signal Conditioning at NIT Rourkela, Orissa on September 23, 2016.
- vi) Dr. Abhijit Chandra was invited to deliver a lecture on Recent Development in the Design of Multiplier-less FIR Filter, in National Seminar on Emerging Trends in Robotics in Industrial Automation (NSETRIA 2016) at Bankura Unnayani Institute of Engineering, West Bengal, October 22-24, 2016.
- vii) Prof. Rajib Bandyopadhyay was invited to deliver a lecture on “Sensors and instrumentation systems for agricultural applications” in National Seminar on Emerging Trends in Robotics in Industrial Automation (NSETRIA 2016) at Bankura Unnayani Institute of Engineering, West Bengal, October 23, 2016.
- viii) Prof. Rajib Bandyopadhyay was invited to deliver a lecture “Sensing of smell and taste: a new paradigm in measurement technology” in the National Workshop on Intelligent Sensing, Instrumentation and Control (ISIC-2017) at NIT Silchar, Assam on Feb 3, 2017.
- ix) Prof. Rajib Bandyopadhyay was invited to deliver a lecture on “Non-invasive quality assessment of medicinal plants: Application of Spectroscopic Methods” in the 4<sup>th</sup> International Congress of SFEC, held at Uka Tarsadia University, Surat, Gujrat on Feb. 24, 2017.

- x) Prof. Rajib Bandyopadhyay was invited to deliver a lecture on “Estimation of smell and taste using Electronic nose and tongue” in the workshop STC 2017 organized by University of Calcutta on 18<sup>th</sup> March 2017.
- xi) Dr. Runu Banerjee Roy delivered a talk on process control mechanism and application in a TEQIP sponsored Training program for University Technical Staff and Research Scholars organized by Jadavpur University on 21<sup>st</sup> March 2017 at IEE Department, JU.
- xii) Prof. Rajib Bandyopadhyay was invited to chair a session in the one day workshop on “Computer Vision: Concepts, Trends and Applications” organized by the Dept. of Printing Engg, Jadavpur University on 31<sup>st</sup> March, 2017 at Hotel DE Sonnet, Kolkata.

### 3. B. Seminar/ Workshop/ Conference/Symposium Attended:

#### Paper Presented in International Conferences :

1. Somdeb Chanda, Ashmita De, Bipan Tudu, Rajib Bandyopadhyay, Ajanto Kumar Hazarika, Santanu Sabhapondit, B.D.Baruah, Pradip Tamuly, Nabarun Bhattacharyya, “Prediction of Polyphenol Content in Tea Leaves Using NIR Spectroscopy,” *2016 International Conference on Intelligent Control Power and Instrumentation (ICICPI)*, RCC Institute of Information Technology, Kolkata, India, pp.51-55, October 21-23, 2016.
2. Pradip Saha, Santanu Ghorai, Bipan Tudu, Rajib Bandyopadhyay, Nabarun Bhattacharyya, “SVD Based Tea Quality Prediction Using Electronic Tongue Signal,” *2016 International Conference on Intelligent Control Power and Instrumentation (ICICPI)*, RCC Institute of Information Technology, Kolkata, India, pp.79-83, October 21-23, 2016.
3. Nilava Debabhuti, Barnali Ghatak, Sk Babar Ali, Vinita Parasrampurua, Sk. Md. Rafiqul Hassan, Pranav Agarwal, Sudipto Dutta Gupta, Prolay Sharma, Bipan Tudu, Rajib Bandyopadhyay, Nabarun Bhattacharyya “Development of a QCM Sensor for Detection of Trans-2-hexenal in Tomatoes,” *2016 International Conference on Intelligent Control Power and Instrumentation (ICICPI)*, RCC Institute of Information Technology, Kolkata, India, pp.95-99, October 21-23, 2016.
4. Trisita Nandy Chatterjee, Runu Banerjee Roy, Bipan Tudu, Rajib Bandyopadhyay, Panchanan Pramanik, Nabarun Bhattacharyya “Voltammetric Determination of Catechins in Green Tea using Stainless Steel Electrode,” *2016 International Conference on Intelligent Control Power and Instrumentation (ICICPI)*, RCC Institute of Information Technology, Kolkata, India, pp.118-121, October 21-23, 2016.
5. Saumita Kar, Bipan Tudu, Anil Kumar Bag, Rajib Bandyopadhyay, “Discrimination of Turmeric Brands by Means of Near Infrared (NIR) Spectroscopy Combined with Chemometrics,” *2016 International Conference on Intelligent Control Power and Instrumentation (ICICPI)*, RCC Institute of Information Technology, Kolkata, India, pp.74-78, October 21-23, 2016.
6. P. Mitra, C. Dey, and R. Mudi, “An improved dynamic set point weighted PI controller for servo position control application,” *IEEE International Conference on Computational Intelligence and Network- CINE*, 2016 pp 145-149, Bhubaneswar (India).
7. P. Mitra, C. Dey, and R. Mudi, “An improved fuzzy PID controller with fuzzy rule based set-point weighting technique,” *IEEE International Conference on Control, Instrumentation, Energy and communication - CIEC 2016*, pp. 40-44, Kolkata (India).

8. P. Pal, C. Dey, and R. Mudi, "Design of multi-loop IMC-PID controller for TITO process with dead time," *IEEE International Conference on Control, Instrumentation, Energy and communication - CIEC 2016*, pp. 45-49, Kolkata (India).
9. U. M. Nath, C. Dey, and R. Mudi, "Fuzzy based adaptive IMC-PI controller for real time application on a level control loop," *Springer International Conference on Frontiers of Intelligent Computing: Theory and Applications- FICTA 2016*, pp 387-395, Bhubaneswar (India).
10. U. M. Nath, C. Dey, and R. Mudi, "Fuzzy-tuned SIMC controller for level control loop," *Springer International Conference on Industry Interactive Science, Engineering & Technology- I3SET 2016*, Kalyani (India).
11. U. M. Nath, C. Dey, and R. Mudi, "Model identification of coupled-tank system-MIMO process," *IEEE International Conference on Electrical Computer and Communication Technologies- ICECCT 2017*, Coimbatore (India).
12. U. M. Nath, C. Dey, and R. Mudi, "Design of Modified Model-based Adaptive Control System for FOPDT Process," *IEEE International Conference on Power Control and Embedded systems- ICPCES 2017*, Allahabad (India).

**Dr. Runu Banerjee Roy attended the following events:**

- i) "Initiatives in Outcome Based Education and NBA Accreditation", organized by Jadavpur University under faculty and staff development from 06.03.2017 to 08.03.2017.
- ii) "Computer vision – Trends and application", organized by Department of Printing Engineering, Jadavpur University on 31.03.17.

**Dr. Abhijit Chandra attended the followings events:**

- i) "IEEE ComSoc 5G Summit and 28th GSSM", organized by IEEE Kolkata Section from 17.03.2017 to 18.03.2017.
- ii) "Initiatives in Outcome Based Education and NBA Accreditation", organized by Jadavpur University under faculty and staff development from 06.03.2017 to 08.03.2017.
- iii) "Recent Trends in Signal Processing", organized by Department of Electronics & Telecommunication Engineering, Jadavpur University from 19.10.2016 to 20.10.2016.
- iv) "One Day Workshop on Emerging Areas of Electronics & Communication Engineering", organized by Department of Electronics & Telecommunication Engineering, Jadavpur University on 29.07.2016.

**3. C. Seminar/ Workshop/ Conference/Symposium Organized:**

- i) Organised jointly with International Society of Automation (ISA), Kolkata Chapter a Tech-Talk on "Flow solution in flare gases in hydrocarbon industry" by Mr. Nitin Gupta, Asst. Vice President, Chemtrols, Mumbai on 20th Feb. 2017.
- ii) Organized a TEQIP Phase-II Sponsored One Day Workshop on "Emerging Prospects in Wireless Sensor Network", on 10.03.2017 at Jadavpur University Salt Lake campus .
- iii) Organised a workshop on 'Sensor Systems for Agricultural Applications' organized by the Department of Instrumentation and Electronics Engineering, Jadavpur University on 15.03.2017 in association with NIT, Patna, CDAC, Kolkata, TTRI, Tocklai, Assam and National Tea Research Foundation, Tea Board at Hotel Sonnet, Kolkata sponsored by TEQIP –II.

- iv) Organised a workshop “ReTUNE 2017” (REcent Trends in Undergraduate iNstrumentation and Electronics Engg syllabi and curriculum and syllabus) organized by the Department of Instrumentation and Electronics Engineering, Jadavpur University on 30.03.2017 at Hotel Sonnet, Kolkata sponsored by TEQIP –II.

### 3. D. Orientation Course/ Refreshers Course Attended:

- Dr. Abhijit Chandra attended a course on “VLSI Design and Nanotechnology: Issues and Challenges”, organized by Department of Electronics & Telecommunication Engineering and Computer Science & Engineering, Jadavpur University from 28.11.2016 to 17.12.2016.
- Dr. Runu Banerjee Roy attended a course on ‘PLC Programming and application’ at NITTR, Kolkata, 11<sup>th</sup> July- 22<sup>nd</sup> July, 2016

### 4. A. Books/Monographs Published:

1. **Title of the Book:** *Electronic Noses and Tongues in Food Science*, Academic Press. **Edited by:** Maria Luz Rodriguez Mendez and Victor R. Preedy **Title of the chapter:** *Tea and the Use of the Electronic Nose*, 2016, pp 125-135, **By** Runu Banerjee (Roy), Rajib Bandyopadhyay, Bipan Tudu, Nabarun Bhattacharyya
2. **Title of the Book:** *Electronic Noses and Tongues in Food Science*, Academic Press. **Edited by:** Maria Luz Rodriguez Mendez and Victor R. Preedy **Title of the chapter:** *Electronic Tongue for the Estimation of Important Quality Compounds in Finished Tea*, 2016, pp 245-253. **By** Arunangshu Ghosh, Bipan Tudu, Pradip Tamuly, Nabarun Bhattacharyya, Rajib Bandyopadhyay
3. **Title of the Book:** *Advanced Interfacing Techniques for Sensors*, Springer-Verlag. **Edited by:** Bobby George, Joyanta Kumar Roy, Jagadeesh Kumar and Subhas Mukhopadhyay **Title of the chapter:** *Interfacing and pre-processing techniques with olfactory and taste sensors*, 2017, pp 295-267. **By** Rajib Bandyopadhyay and Anil Kumar Bag

### 4. B. Articles Published in Journals:

#### INTERNATIONAL

1. Pradip Saha, Santanu Ghorai, Bipan Tudu, Rajib Bandyopadhyay, Nabarun Bhattacharyya, “Feature fusion for prediction of theaflavin and thearubigin in tea using electronic tongue,” *IEEE Transaction on Instrumentation and Measurement*, vol. 66, no. 7, pp. 1703-1710, 2017.
2. Hena Ray, Nabarun Bhattacharyya, Alokesh Ghosh, Bipan Tudu, Rajib Bandyopadhyay, “Age analysis of Jasmine concrete using electronic nose,” *IEEE Sensors Journal*, vol. 17, no. 12, pp. 3814-3821, 2017.
3. Sujoy Kumar Ghosh, Prakriti Adhikary, Santanu Jana, Anirban Biswas, Vitor Sencadas, Sudipto Dutta Gupta, Bipan Tudu, Dipankar Mandal, “Electrospun gelatin nanofiber based self-powered bio-e-skin for health care monitoring,” *Nano Energy*, vol. 36, pp. 166-175, 2017.
4. Trisita Nandy Chatterjee, Runu Banerjee Roy, Bipan Tudu, Panchanan Pramanik, Himangshu Deka, Pradip Tamuly, Rajib Bandyopadhyay, “Detection of theaflavins in black tea using a molecular imprinted polyacrylamide-graphite nanocomposite electrode,” *Sensors and Actuators B*, vol. 246, pp. 840-847, 2017.
5. Hena Ray, Nabarun Bhattacharyya, Alokesh Ghosh, Bipan Tudu, Rajib Bandyopadhyay, Arunangshu Ghosh, Suparna Parua, Sabyasachi Majumdar, “Identification of optimum blossoming



- stage of Jasminum Sambac Ait. flowers for concrete extraction using electronic nose,” *IEEE Sensors Journal*, vol. 17, no. 1, pp. 160-168, 2017.
6. A Reza, K Banerjee, P Das, K Ray, S Bandyopadhyay, B Dam, “An in situ trap capacitance measurement and ion-trapping detection scheme for a Penning ion trap facility” *Review of Scientific Instruments*, vol 88, no.3, 2017.
  7. Abhijit Chandra, Priya Kumari, Mouban Chakraborty and Utsab Sengupta, “Double Span Floating Point Representation Scheme for the Powers-of-two Filter”, *International Journal of Electronics and Communications (Elsevier)*, vol. 74, pp. 13-20, 2017.
  8. Abhijit Chandra and Sudipta Chattopadhyay, “Novel Minimum Index Floating Point Representation for the Design of Powers-of-two Filter”, *International Journal of Electronics Letters (Taylor & Francis)*, vol. 5, no. 1, pp. 69-81, 2017.
  9. Debolina Chakraborty, Milan Kumar Tarafder and Abhijit Chandra, “A New Walsh-Like Near Orthogonal (WNO) Sequence for Asynchronous CDMA System”, *Wireless Personal Communications (Springer)*, vol. 88, no. 4, pp. 711-729, June 2016.
  10. Chandra Sekhar Nandi, Bipan Tudu, Chiranjib Koley, “A machine vision technique for grading of harvested mangoes based on maturity and quality,” *IEEE Sensors Journal*, vol. 16, no. 16, pp. 6387-6396, 2016.
  11. Prolay Sharma, Bipan Tudu, Lakshi Prasad Bhuyan, Pradip Tamuly, Nabarun Bhattacharyya, Rajib Bandyopadhyay “Detection of Methyl salicylate in black tea using a quartz crystal microbalance sensor,” *IEEE Sensors Journal*, vol. 16, no. 13, pp. 5160-5166, 2016.
  12. Sudip Biswas, Rashmita Das, Malini Basu, Rajib Bandyopadhyay and Panchanan Pramanik “Synthesis of Carbon Nanoparticle Embedded Graphene for Sensitive and Selective Determination of Dopamine and Ascorbic acid in Biological Fluids”, *RSC Adv.*, 6, pp.100723-100731, 2016.
  13. Amitava Akuli, Abhra Pal, Gopinath Bej, Tamal Dey, Arunangshu Ghosh, Bipan Tudu, Nabarun Bhattacharyya, Rajib Bandyopadhyay, “A machine vision system for estimation of theaflavins and thearubigins in orthodox black tea,” *Int. J. Smart Sensing and Intelligent Systems*, vol. 9, no. 2, pp. 709-731, 2016.
  14. Runu Banerjee (Roy), Bipan Tudu, Rajib Bandyopadhyay, Nabarun Bhattacharyya, “A review on combined odor and taste sensor systems,” *Journal of Food Engineering*, vol. 190, pp. 10-21, 2016.
  15. Pradip Saha, Santanu Ghorai, Bipan Tudu, Rajib Bandyopadhyay and Nabarun Bhattacharyya, “Tea quality prediction by autoregressive modeling of electronic tongue signals,” *IEEE Sensors Journal*, vol. 16, no. 11, pp. 4470-4477, 2016.
  16. Sk Babar Ali, Barnali Ghatak, Sudipto Dutta Gupta, Nilava Debabhuti, Parthojit Chakraborty, Prolay Sharma, Arunangshu Ghosh, Bipan Tudu, Souvik Mitra, Mousumi Poddar Sarkar, Nabarun Bhattacharyya, Rajib Bandyopadhyay, “Detection of 3- Carene in mango using a quartz crystal microbalance sensor,” *Sensors and Actuators B*, vol. 230, pp. 791-800, 2016.
  17. Abhijit Chandra, “Design of Hardware Efficient FIR Filter: A Survey of the State-of-the-art Approaches,” *Engineering Science and Technology: an International Journal (Elsevier)*, vol. 19, no. 1, pp. 212-226, 2016.
  18. Abhijit Chandra, “A New Strategy of Image Denoising using Multiplier-less FIR Filter Designed with the aid of Differential Evolution Algorithm,” *Multimedia Tools and Applications (Springer)*, vol. 75, no. 2, pp. 1079-1098, 2016.



19. S. So, A.E.W. George, R. Ghosh, and K.K. Paliwal, "Kalman Filter with Sensitivity Tuning for Improved Noise Reduction in Speech," *Circuits Systems and Signal Processing*, 2016.
20. Siuli Das, Karabi Biswas and Bhaswati Goswami, "Milk Adulteration and Detection: A Review", *Sensor Letters*, vol. 14, no. 1, pp. 4 – 18, 2016.
21. P. K. Paul, C. Dey, R. K. Mudi, "Design of IMC controller for TITO process with dynamic closed-loop time constant," *Advances in Intelligent Systems and Computing*, vol. 381, pp. 191-200, 2016.

#### 6. Major Achievements:

- i) Prof. Rajib Bandyopadhyay was the President of International Society of Automation (ISA), Kolkata Chapter during 2014- 2016.
- ii) Prof. Rajib Bandyopadhyay continues to be the Research Professor with the Laboratory of Artificial Sensory Systems, of ITMO University, Saint Petersburg, Russia.
- iii) Mr. Abhijit Chandra receives IET Young Engineers Award 2015-16 in Electronics & Telecommunication Engineering discipline from The Institution of Engineers (India).

### MECHANICAL ENGINEERING

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Int. : 2457-2248  
H.O.D. : Prof. Dipankar Sanyal  
E-mail : hod@mech.jdvu.ac.in  
hodmechanical@jadavpuruniversity.in

#### 1(A) Courses Offered:

Name of the Courses	Course Duration	Intake Capacity
Bachelor's Degree in Mechanical Engineering	4 Years	130
Bachelor's Degree in Mechanical Engineering (Evening Course)	5 Years	40
Master's Degree in Mechanical Engineering	2 Years	25
Master's Degree in Mechanical Engineering (Automobile Engineering)	2 years	05

#### 1(B) Number of Faculty Members:

• Professors:	30
• Associate Professors:	16
• Asst. Professors:	14
<b>Total:</b>	<b>60</b>

**2(A) Departmental Research Activities** (Broad Areas):

- Hydraulic and Combustion control
- Experimental and Computational fluid dynamics and heat transfer including problems on multi-phase flow.
- Mechatronics and Control.
- Heat transfer analysis of various production process.
- Combustion modeling and simulation.
- Pollution and its control
- Alternative fuels
- I.C. Engine & Combustion
- Vibration analysis.
- Vibration control in machine foundations.
- Laser machining process.
- Fracture Mechanics.
- Dynamic instability of machine structures
- Synthesis and analysis of machine components.
- Experimental stress and deformation analysis.
- Composite structure.
- Computer Aided Design & Manufacturing (CAD/CAM)
- Energy and Exergy analyses of advanced power and cogeneration systems. Clean coal technology. Combined cycles. Energy conservation. Fuel cell technology.
- Mechatronics
- Biomechanics and Bioengineering
- Product Development: Product development performance using the Structural Equation Modeling (SEM) approach
- Sustainable Energy
- Microfluidics

**2(C) Major Research Projects : (Name of Funding Agency–Project Title–Duration Funding)**

**Prof. Dipankar Sanyal**

1. CARE, Bangalore–Design and development of a quadruped with electrohydraulic power system for realization of autonomous robot - Co-PI among many others (PI S Mookherjee)–2015-2018  
Rs 393.5 lakh

**Prof. Nipu Modak (Project Title–Worked As–Funding Agency–Amount)**

Experimental Investigations of Tribological and Mechanical Properties of Fibre Reinforced Composites–PI–UGC– 12.75 lakhs

**Prof. Sudipta De**

Project Coordinator (Indian) of an International Project under Indo-Norwegian Cooperation Program. Title: 'Road map for low carbon Indian energy systems: exploring innovative solutions'. Indian funding from **University Grants Commission** and Norwegian funding from **Norwegian Centre for International Cooperation in Education**

**Prof. A.S. Das**

Name of the Project: Investigation of the Performance of a Rotor-Shaft System Supported on Magnetic-Bearings mounted on a Maneuvering Marine Vessel based on the Stability and Vibration Response

Funding Agency: Naval Research Board, DRDO.

This project was sanctioned and commenced on academic year 2015-2016. Academic year 2016-2017 was the 2<sup>nd</sup> year of execution of this project. This will be expected to be concluded at end of academic year 2017-2018.

**Prof. Sadhan Kumar Ghosh**

*International Research Projects (Funded) ongoing - Prof Sadhan K Ghosh as Principal Investigator*

1. **Erasmus Plus Programme** (August 2015–Sept 2016) :Indo-Thai–UK Research Programme under Erasmus+ Programme, Focus : Supply Chain Sustainability in SME, Food Supply Chain & Energy Recovery from Waste, Partners : Jadavpur University, India, Aston University, UK; Asian Institute of Technology, Thailand and University of Thailand Chamber of Commerce, Thailand; Fund : 24,000 EURO.
2. **UKIERI** (June 2015 – extended up to May 2017): UK India Educational Research Initiative – Thematic Partnership Research Project “Developing Low Carbon SMEs in India and the UK through Lean and Green Manufacturing” Partners: Jadavpur University, India & Aston University, UK;, 10,000 GBP.
3. **UKIERI** (2013–Extended up to 2016 June) : UK India Educational Research Initiative – Thematic Partnership Research Project “*Climate Change Issues and Environmental Performance of Small and Medium-sized Enterprises (SMEs) in India and the UK*”, Partners are Aston University, UK, ITRC, CSIR Lucknow and IIT Kgp, 2012 – 2014 (Extended up to 2016 March) – 40,000 GBP.
4. **Research Project by Asian Productivity Organisation (APO), Japan and China Productivity Council, Taiwan** (May 2016 – continued): “Green Productivity for the Base of the Pyramid for Sustainable Development in APO Member Countries”. Lead Partner : National Taipei University of Technology, Taiwan; Partners : India, represented by Jadavpur University; Central Institute for Economic Management, Vietnam; National Environment Board, Thailand Ministry of Natural Resources and Environment; PT Aicón Global Indonesia, Indonesia; Malaysia Productivity Corporation (MPC), Malaysia; William Davidson Institute at the University of Michigan; USA; Funding Agencies : APO, Japan and CPC, Taiwan – 30,000 USD.

*Collaborative International Research Projects (Non-Funded) ongoing - Prof Sadhan K Ghosh as Principal Investigator*

1. “*Global Waste Management, Resource Circulation and 3R*” (March 2016 – March 2020); Lead Partner : 1. Jadavpur University, India; Lead Supporting Organisation/Society : 2. International Society of Waste Management, Air and Water (ISWMAW) and 3. Consortium of Researchers in International Collaboration (CRIC). Collaborative Partners and respective country Lead : 4. Australia; Griffith University, Griffith School of Engg, Queensland, 5. Egypt, University of Cairo; 6. Germany, Rostock University; 7. Italy, LAR<sup>5</sup> Laboratory – Dipartimento di Ingegneria, University of Perugia, Perugia; 8. Rep. of Korea, Kyonggi University. 9. South Africa- The Cape Peninsula University of Technology, Cape Town; 10. Thailand, AIT; 11. USA, Widener University.

2. **BRICS E-waste Project** (July 2015 – up to July 2019) : “Waste electrical and electronic equipment management and Basel Convention compliance in Brazil, Russia, India, China and South Africa (BRICS) nations”. Collaborative research project with individual funding; Lead Partner: Department of Mechanical Engineering, Jadavpur University, India; Other Partners : BCRCAP, Tsinghua University, BCRC, China; Dept of Civil, Env & Arch Engineering, University of Colorado, USA; State Dept of City Management, Saint-Petersburg State University of Economic, Russian Federation; School of Env. Sciences, University of Venda, South Africa; Innovarelab Pesquisa e Consultoria, São Paulo, Brazil.
3. **India and China** - Collaborative Research Project on *E-waste Management* (October 2016 – October 2019): Jadavpur University and Tsinghua University, Beijing, China.
4. **India & Italy** : Collaborative Research Project on “*Sustainable Development Goals – Realisation in Global Perspective*” (June 2016 – December 2019) : Partners : Jadavpur University, India; LAR<sup>5</sup> Laboratory – Dipartimento di Ingegneria, University of Perugia, Perugia, Consortium of Researchers in International Collaboration (CRIC) and International Society of Waste Management, Air and Water (ISWMAW).

### 3 (A) Invited Lecturers Delivered/Session Chaired:

#### Prof. Sadhan Kumar Ghosh

*Lectures delivered in foreign Countries by Prof. Sadhan K. Ghosh*

1. **USA, Invited to deliver The Opening Plenary Speech in** Philadelphia, on “Circular Economy in Asian Countries”, in the Thirty First International Conference on Solid Waste Technology and Management, Philadelphia, Widener University, USA held during April 15-18, 2016.
2. **Taiwan, Asian Productivity Organisation (APO), Japan and China Productivity Council, Taiwan** : Delivered speech on “GP for the Base of the Pyramid for Sustainable Development in India and further improvement” in the Coordination meeting during 3-5 May, 2016 at Taipei, ROC.
3. **China, Hefei University, Hefei, China** : Invited Speech on “Waste to Energy” in International Conference on Waste Management in Hefei University, Hefei, China, during May 18-19, 2016.
4. **China , Hefei University, Hefei, China** : Invited Speech on “Innovation in Environment Management System” in Hefei University, Hefei, China, on May 20, 2016.
5. **UK, Aston Business School, Aston University, June 2016**,– Delivered speech in the workshop in Aston Business School, Birmingham, UK on “Managing sustainable food supply chains in India and other developing countries” on 21st June 2015 as a part of , Erasmus Plus Programme and “SME performance towards Low carbon emission” as a part of UKIERI project on 22<sup>nd</sup> June 2016.
6. **Italy, Monash University, Prato, June 2016** – Delivered speech “*Decision Support Systems (DSSs) help implement energy recovery from waste projects in India and the UK*” and “*Climate Change Issues and Sustainability Performance of Small and Medium-sized Enterprises (SMEs) in Developed and Emerging Economies*” in the “Sustainable Development Workshop” hosted by the Monash Business & Sustainability Network and Centre for Development Economics and Sustainability at Monash University Prato Centre, Prato, Tuscany, Italy, June 24-25, 2016.
7. **China, Basel Convention Regional Centre for Asia and the Pacific, Miangyang, and Kunming, October 2016** - Invited by Tshinhua University, Beijing China to deliver the plenary speech on “*Role of Biomass for economy development by BOP group*” in the 11<sup>th</sup> International

Conference on Waste Management and Technology by Basel Convention centre, on October 21-24, 2016 at Jingy Hotel, Beijing China.

8. **Laos PDR, National University of Laos, October 2016** - Invited by **National University of Laos, October 2016 and Aston University, UK** to deliver Keynote speech on “Waste to Energy in ASEAN and the UK” during 25-26, October 2016 in the “UK-ASEAN Innovation Conference” at Lao Plaza Hotel, 63 Samsenthai Road, Vientiane, Laos.
  9. **Australia, International Expert invited by UNCRD under United Nations:** Prof. Sadhan Kumar Ghosh of mechanical engineering department was invited as International Expert by United Nations Centre for Regional Development (UNCRD); Australian Government and Ministry of the Environment, Japan (MOEJ) for the Plenary Speech on “*Potential of economic utilization of biomass waste in India~Implications towards SDGs*’ and as the Facilitator/Moderator for the open discussion in the Country Presentations on Afghanistan, Cambodia, Lao PDR, the Republic of Korea, Niue, Vanuatu, Tuvalu in the “7th Regional 3R forum in Asia and the Pacific”, 2-4 November 2016, Adelaide Convention Centre, Adelaide, Australia, Theme, “Advancing 3R and Resource Efficiency, for the 2030 Agenda for Sustainable Development”.
  10. **Bangladesh:** Delivered the Keynote Speech in the WasteSafe 2017, 4<sup>th</sup> International Conference on Waste Management in South Asian Countries, held during February 25-27, 2017 at KUET, Khulna, Bangladesh.
  11. **Bangladesh:** Delivered the Invited Speech on “Global Waste Management” held on February 27<sup>th</sup>, 2017 at Khulna University, Bangladesh.
  12. **USA, Invited to deliver The opening Plenary speech in Philadelphia, USA on** “Circular Economy and 3Rs – Reduce, Reuse, Recycle for Efficient Use of Resources”, in the 32<sup>nd</sup> International Conference on Solid Waste Technology and Management, Philadelphia, Widener University, USA to be held during March 19-22, 2017. <http://solid-waste.org/past-conferences-and-proceedings/proceedings/2017-2/>
- List of Selected Lectures delivered in India by Prof. Sadhan K. Ghosh*
13. **New Delhi:** Delivered the Speech in the Special Session on “3R Implementation in India” in the 4<sup>th</sup> 3RINCs, 4th International Conference on Materials Cycles and Waste Management held during March 8-10, 2017 at Indian Habitat Centre, New Delhi, India supported by Kyoto University, IIP Dehradun, ISWMAW, UNCRD and IEGS, Japan.
  14. **New Delhi:** Delivered the Keynote Speech on “Economic Utilisation of Biomass in India : SWM Perspective” in the APN Workshop, 3<sup>rd</sup> International Conference on Materials Cycles and Waste Management held on March 10, 2017 at Indian Habitat Centre, New Delhi, India organised by Ministry of Environment, Japan.
  15. **Delhi, Panellist in World Sustainable Development Summit :** Prof. Sadhan Kumar Ghosh of mechanical engineering department was invited in as panellist in the “World Sustainable Development Summit” on October 5 - 8, 2016 at Biggyan Bhawan, New Delhi to deliver on *EU–India collaboration for Resource Efficiency and the Circular Economy*, organised by TERI.

**Session Chaired :** (Description–Date–Venue)

Chaired the Technical Session in the Thirty First International Conference on Solid Waste Technology and Management, Philadelphia, Widener University, USA held during April 15-18, 2016–April 17, 2016–The Warwick Hotel, Philadelphia, USA

Chaired the Special Technical Session on “Biomass Gasification” in the 4<sup>th</sup> 3RINCs, 4th International Conference on Materials Cycles and ....., held during March 8-10, 2017 at Indian Habitat Centre,



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New Delhi, India supported by Korean Society of Waste Management and ISWMAW.–March 9, 2017–at Indian Habitat Centre, New Delhi,

Chaired the Technical Session in the Waste Safe 2017, 4<sup>th</sup> International Conference on Waste Management in South Asian Countries, held during February 25-27, 2017 at Khulna University of Engineering and Technology, Khulna, Bangladesh.–February 27, 2017–KUET, Bangladesh

Chaired Technical Session in the China, Basel Convention Regional Centre for Asia and the Pacific, Beijing, October 2016 –October 23, 2016–Tsinghua University, China

Chaired and act as the Facilitator/Moderator for the open discussion in the Country Presentations on Afghanistan, Cambodia, Lao PDR, the Republic of Korea, Niue, Vanuatu, Tuvalu in the “7<sup>th</sup> Regional 3R forum in Asia and the Pacific”, 2-4 November 2016, Adelaide Convention Centre, Adelaide, Australia, Theme, “Advancing 3R and Resource Efficiency, for the 2030 Agenda for Sustainable Development”. –3, November 2016–International Convention Centre, Adelaide, South Australia

Chaired Technical session in 6<sup>th</sup> International Conference on SWM held at Jadavpur University, by the CQMS, JU, IISc Bangalore, IIT Kgp, TERI & International Society of Waste Management, Air and Water (ISWMAW) on –25<sup>th</sup> November 2015 –Gandhi Bhaban, Jadavpur University

Chaired the Keynote Session in the International Conference on Waste Management in Hefei University, Hefei, China, during May 18-19, 2016.–May 18, 2016–Hefei University, Hefei, China,

Chaired the Technical Session in the 32<sup>nd</sup> International Conference on Solid Waste Technology and Management, Philadelphia, Widener University, USA held during March 19-22, 2017.–March 21, 2016–The Warwick Hotel, Philadelphia, USA

Chaired the CRIC meeting (Consortium of Researchers in International Collaboration) attended by 21 countries. –March 20, 2016–The Warwick Hotel, Philadelphia, USA

#### **Prof. Nipu Modak**

Session Chair and Co-Chair of the 6<sup>th</sup> International Conference on Solid Waste Management (IconSWM 2016) on 24<sup>th</sup> -26<sup>th</sup> November 2016 at Jadavpur University in Kolkata.

#### **Prof. Sudipta De**

- i) **P.K. Nag memorial lecture** on 4<sup>th</sup> Mechanical Day celebration at **Aliah University**, Kolkata, 7<sup>th</sup> April, 2016.
- ii) ‘From general basics up to the advanced H<sub>2</sub>-IGCC: a very brief overview of the integrated gasification combined cycle (IGCC)’ in Int. Workshop on ASPECTS OF FLUIDIZED BED TECHNOLOGY at **IIT, Guwahati**, July 9-10, 2016.
- iii) Invited presentation in the Seminar on ‘Higher education and research collaboration, India-Norway’ jointly organized by the **Research Council of Norway (RCN) and the Norwegian Center for International Cooperation in Education (SIU) at the University of Oslo, Norway** on 16<sup>th</sup> September 2016.
- iv) ‘Overview of Indian Energy Sector’ in Indo-Norwegian Workshop: Decarbonization roadmap for India, **University of Stavanger, Norway**, 5<sup>th</sup> October 2016. (<http://www.uis.no/news/conferences/decarbonization-roadmap-for-india/>)
- v) ‘Is distributed poly-generation utilizing local resources a sustainable solution for India?’, **1st International Society for Energy Environment and Sustainability Conference on Sustainable Energy and Environmental Challenges**, 26-28 February, 2017, Mohali, India.



**Prof. Prasanta Sahoo**

1. **P. Sahoo** delivered invited lecture on “Tribology – an Eco-sustainable Perspective” in UGC workshop on ‘Advances in Tribology and Manufacturing’ on Feb 22, 2017 at IISC, Bangalore.

**Prof. Goutam Pohit**

Invited lecture in the National Workshop on “Frontier Technologies in Mobility.29<sup>th</sup> July 2016, MCKV Institute of Engineering. Lilua, Howrah 711204.

**Prof. Himadri Chattopadhyay**

Lectures Delivered

1. Recent advances in Turbulence modeling, Dept of Mechanical Engg., JIS Kalyani, Workshop on CFD, 5<sup>th</sup> May, 2016
2. Materials Modeling in Biomechanics, Dept of Bio-Engg. ., JIS Kalyani, Workshop on Bioengineering, 17 May, 2016
3. Series of lectures (8 no.s) in GIAN Course at NIT Raipur, Thermo-fluid Sciences in Energy and Bioengineering applications, 28May – 3<sup>rd</sup> June, 2016
4. On Solidification during net shape manufacturing, COE TEQIP Workshop on Solidification and Phase Transformation, Jadavpur University, 25 August 2016
5. Skill development for young engineers – vision 2025, Engineers day lecture , 15 September 2017, Vivekanada Vignan Mission, West Bengal Chapter
6. CFD in biofluiddynamic, Recent Advances in Thermal- Fluid Science and Engineering, NIT Durgapur, 27 September, 2016
7. Impinging jets – an overview, Worksho pn on advances in Thermo-fluid Sciences, MCKV Instt of Engineering, 29 September, 2016
8. Series of lectures (5) at the Workshop on Thermofluid science – analysis and applications at College of Engineering and Management, Kolaghat , 1-3 October, 2016
9. Series of lectures (5) National Workshop on Recent Advances in Heat and Fluid Flow at Government Engineering College, Berhampore, Murshidabad, 18-22 October 2016
10. Hemorheology – an overview, Intl Conference of Fluid Mechanics Fluid Power, NIT Allahabad, 14 December, 2016.
11. Fluid mechanics in microsystem Technolgies, Workshop on Microsystem Technologioes, NIT Durgapur, 22 February, 2017
12. Modeling rheology in bioengineering, Workshop on Biomechanics, Implants and Related Medical Devices, 15 March 2017, IEST, Howrah.
13. Developments in Wind Turbines, TEQIP Workshop on Turbomachineries, 30 March, 2017
14. Thermal stress, Workshop on Pressure Vessels, 31 March, 2017

**Session Chaired**

1. Chaired Panel discussion at National Workshop on Recent Advances in Heat and Fluid Flow at Government Engineering College, Berhampur, Murshidabad, 22 October 2016
2. Chaired as session at National Conference on Advances in Thermal Engineering 2016 during 23-24 September 2016, at department of Mechanical Engineering, Jadavpur University
3. Indian Foundry Congress, 2017 – chaired one session on Kolkata on 4<sup>th</sup> February, 2017

### 3 (B) Seminar/Workshop/Conference/Symposium Attended:

#### Prof. Prokash Chandra Roy

- S. Kumar and P. C. Roy, Performance optimization of Biodiesel fueled engine using single zone thermodynamic model, Presented at 7th World Renewable Energy Technology Congress & Expo-2016 to present a technical paper during 21 to 23<sup>st</sup> August 2016 held at New Delhi.
- P. C. Roy and B. Kundu, Thermodynamic Modeling of Pulse Tube Refrigeration System, Presented at 2<sup>nd</sup> International conference on Advances in Mechanical Engineering held at Istanbul, Turkey during 10-13 May 2016
- P. C. Roy, A. Datta, N. Chakraborty, Modeling of Downdraft Biomass Gasifier-Engine-Generator Plant using different Biomass feedstocks, Presented at 7<sup>th</sup> International Conference on Mechanical and Aerospace Engineering (ICMAE2016) at London, UK, during 18-07-2016 to 22-07-2016
- H. Samanta, P. C. Roy, N. Barman, Numerical studies of a shell-and-tube PCM based heat storage unit, Presented at Sixth International conference on Computational Mechanics and Simulation at IIT Bombay, during 27-06-2016-1-07-2016.
- S. Das, A. Samanta, P.C.Roy, Modeling of Biogas-Hydrogen fueled Spark Ignition Engines: Effect of spark timing, Presented at National conference on Energy, Economy and Environment [ENERGY 2016] at NIT Calicut, during 16-12-2016 to 17-12-2016

#### Prof. Sadhan Kumar Ghosh

1. International Conference on Waste Management in Hefei University, Hefei, China, during May 18-19, 2016
2. UKIERI Seminar on “Low Carbon SMEs through Green and Lean Manufacturing” at Aston University, UK June 21, 2016.
3. International Conference in Monash School of Management, Monash University, Prato, Florence, Italy during June 24-25, 2016.
4. “World Sustainable Development Summit” on October 5 - 8, 2016 at Biggyan Bhawan, New Delhi to deliver on EU–India collabor
5. 11<sup>th</sup> International Conference on Waste Management and Technology at Beijing, China during October 21-24, 2016 by Basel Convention Regional Centre for Asia and the Pacific, Tshinhua University, Beijing.
6. 1<sup>st</sup> ASEAN Conference on Innovation at Lao Plaza Hotel, Vientien, Laos, during October 25-26, 2016 by National University Laos and Aston University, UK.
7. 6<sup>th</sup> International Conference on Solid Waste Management, 6<sup>th</sup> IconSWM 2016 at Jadavpur University, India, by International Society of Waste Management, Air and Water (ISWMAW), CQMS, Jadavpur University, TERI, IIT Kgp., IISc Bangalore and .
8. 3R Forum on Asia Pacific organized by UNCRD and Govt of Australia, during November 2-4, 2016 at Adelaide Convention Centre, Adelaide, SA, Australia.
9. 4<sup>th</sup> 3R International Scientific Conference on Material Cycles and Waste Management (4<sup>th</sup> 3rd 3RINCs), during March 8-10, 2017 at India Habitat Centre, New Delhi, India by Material Cycles and Waste Management in Asian countries, CSIR-IIP Dehradun, ISWMAW, India and KSWM, S. Korea and IIT Delhi.
10. USA, Invited to deliver The opening Plenary speech in Philadelphia, USA on “3R and Circular Economy in Waste Management”, in the Thirty Second International Conference on Solid Waste

Technology and Management, Philadelphia, Widener University, USA to be held during March 19-22, 2016.

**Prof. Sudipta De**

Attended 1st International Society for Energy Environment and Sustainability Conference on Sustainable Energy and Environmental Challenges, 26-28 February, 2017, Mohali, India.

**Prof. Parasanta Sahoo**

1. **P. Sahoo** attended the conference ICMSQUARE at Athens, Greece in 2016.
2. **P. Sahoo** attended the conference IMME at Tiruchirapally in 2017.

**Prof. Goutam Pohit**

Attended the conference titled “**5th International Conference on Mathematical Modeling in Physical Sciences (IC-MSQUARE-2016)**” held in Athens, Greece. Duration: 23-26 May, 2016.

**Prof. Nipu Modak (Program Name–Organised By–Venue–Year–Type of Participation)**

The 6<sup>th</sup> International Conference on Solid Waste Management–Jadavpur University–Jadavpur University–2016–Participant

11 th International Conference on the Scientific and Clinical Applications of Magnetic Carriers–University of British Columbia –University of British Columbia, Vancouver, Canada–2016–Presented Workshop on Recent Advances and Developments in Energy Sectors–ME Dept, Jadavpur University –ME Dept, Jadavpur University–2016–Participant

Workshop on Solidification and Phase Transformation–ME Dept, Jadavpur University–ME Dept, Jadavpur University–2016–Participant

**3 (C) Seminar/ Workshop/Conference/Symposium Organized:**

**Prof. Prokash Chandra Roy**

- Organized National Conference on Advances in Thermal Engineering 2016 during 23-24 September 2016, at department of Mechanical Engineering, Jadavpur University supported by TEQIP-II.
- Organized One Day National Workshop on Recent Advances and Developments in Energy Sectors (NWRADES 2016) at department of Mechanical Engineering on 3rd September 2016 Sponsored by TEQIP-II
- Organized One Day National Workshop on TURBOMACHINES at department of Mechanical Engineering on 30<sup>th</sup> March 2017, Sponsored by TEQIP-II

**Prof. Nipu Modak (Program Name–Organised As–Venue–Year)**

One day National Workshop on “Recent Trends in Pressure Vessels Design and Operation” on 29th March 2017 Coordinator Mech Engg. Dept. Jadavpur University 2017

**Prof. Sudipta De**

1. Organized a lecture by legendary scientist **Prof. Manilal Bhaumik** on ‘**Our cosmic origin**’ on 16<sup>th</sup> December 2016 at Gandhi Bhavan, Jadavpur University, Kolkata.
2. Coordinated as the Chief Patron of the **TEDx Program: ‘Spectrum**’ on 27<sup>th</sup> January 2017 at Gandhi Bhavan, Jadavpur University, Kolkata.

**Prof. Sadhan Kumar Ghosh**

1. 6<sup>th</sup> International Conference on Solid Waste Management (6<sup>th</sup> IconSWM 2016) held at Jadavpur University in collaboration with CQMS, JU; IISc, IIT Kgp, TERI, CRIC and ISWMAW and other industries during Nov 24-26, 2016 attended by 557 delegates from 27 countries presented 240 papers organized as the Chair.
2. Indo-Thai-UK Seminar on Supply Chain Sustainability in SMEs in India, Thailand and the UK during February 1-3, 2016 at Jadavpur University.
3. UKIERI Seminar on :How to write research articles” on July 10, 2016 at Jadavpur University.
4. India- Taiwan Service Learning Worksho, attended by the teachers and student from Taiwan, Hong Kong, and India on 20<sup>th</sup> July 2016 at Jadavpur University.
5. 4<sup>th</sup> 3R International Scientific Conference ( 4<sup>th</sup> 3RINCs) by the International Committee on Material Cycles and Waste Management to be held in New Delhi in March 2017 as the Organising Chairman of the.
6. Training workshop conducted at CQMS,JU under research project – “Waste Management - A Municipal level study in West Bengal for assessing 3R Concept implementation” held on 29<sup>th</sup> March 2017 at the Seminar Room, M E Dept, JU.

**Prof. Himadri Chattopadhyay**

1. Organized a GIAN course in collaboration with NIT Raipur on Thermo-fluid Sciences in Energy and Bioengineering applications, 28May – 3<sup>rd</sup> June, 2016 (Event at NIT Raipur)
2. Organized COE- TEQIP SPONSORED Workshop on Solidification during 25-26 August 2016

**3 (D)Orientation Course/ Refresher Course Attended:**

**Prof. Prokash Chandra Roy**

Three-week Refresher Course on “Built Environment & Sustainable Technologies (BEST)” during 2nd to 21st January, 2017 at the Dept. of Architecture, JU.

**Prof. Nipu Modak (Program Name–Organised By–Venue–Year–Type of Participation)**

Short Term /In-house Training Programme on AUTOCAD–NITTTR, Kolkata –NITTTR, Kolkata– 2017(1 Week)–Participant

**4(A) Books/Monographs etc. Published:**

**Prof. Sudipta De**

Jana, K. and **De, S\*** (2017): “Thermo-Chemical Ethanol Production from Agricultural Waste Through Polygeneration: Performance Assessment Through a Case Study”, *Biofuels Technology: Challenges and Prospects*, Editors: Avinash Kumar Agarwal, Rashmi Avinash Agarwal, Tarun Gupta, Bholu Ram Gurjar, ISBN: 978-981-10-3790-0 (Print) 978-981-10-3791-7 (Online), **Springer**.

**Prof. Prasanta Sahoo**

1. **P. Sahoo**, S K Das, J. Paulo Davim, Chapter Title: Surface Finish Coatings in *Comprehensive Materials Finishing* (Ed. Saleem Hashmi), 2016, Elsevier, ISBN: 9780128032497
2. **P. Sahoo** and T K Barman, Response Surface Modeling of Fractal Dimension in WEDM (pp. 135-149) in *Design of Experiments in Production Engineering* (Ed. J. Paulo Davim), Springer, 2016, ISBN: 978-3-319-23837-1 (Print) 978-3-319-23838-8 (Online)

3. **P Sahoo**, S K Das, Tribological Materials - An Ecosustainable Perspective (PP. 1-37) in Progress in Green Tribology (Ed. J. Paulo Davim), DeGruyter, 2017, ISBN: 978-3-11-036705-8.
4. Milan Kumar Das, Tapan Kumar Barman, **P Sahoo**, Kaushik Kumar, Process Optimization in Non-Conventional Processes: Experimentation With Plasma Arc Cutting (PP. 82-119), in Handbook of Research on Manufacturing Process Modeling and Optimization Strategies (Ed. R das and M Pradhan) 2017, IGI Global.

**Prof. Himadri Chattopadhyaya**

1. Loha, H Chattopadhyay, PK Chatterjee, 2015, Modeling of Fluidized Bed Gasification, Vol. 2 Coal Energy, Compendium of the Series Energy Science & Technology, ed. Govil J. N., Studium Press
2. Bhattacharya, S., Chattopadhyay, H., Pal, K. T., Roy, A., (2016), Numerical investigation of thermo hydraulics performance in elliptical twisted duct heat exchanger , CAD/CAM, Robotics and Factories of the Future.
3. Bhattacharya, H. Chattopadhyay, H., Roy, A., Rakshit, A., Choudhury, R.I., (2016), Thermohydraulic Transport Characteristics of Micro Mixer in Micro Channel , Recent Advances in Chemical Engineering 29-39.
4. Bhattacharya, S. Roy, A. Chattopadhyay, H., Rakshit, A., (2016), A numerical investigation based on heat transfer and fluid flow characteristics of air in a circular tube heat exchanger with inclined ribs, Recent Advances in Chemical Engineering, 11-12.

*Edited Proceedings*

1. Bhattacharyya, S., Sen, S., Dutta, M., Biswas, P., Chattopadhyay, H., Industry Interactive Innovations in Science, Engineering and Technology: Proceedings of the International Conference, I3SET 2016 , Lecture Notes in Networks and Systems vol. 11. 2017 Springer.

**Prof. Sadhan Kumar Ghosh**

*Edited volume as Chief Editor by Prof Sadhan K Ghosh*

1. Editor-in-Chief: Procedia Environmental Sciences, "**Waste Management & Resource Utilisation**" published on 4<sup>th</sup> August 2016 – Edited the Proceedings of 5<sup>th</sup> International Conference on Solid Waste Management, in 2015 published by Elsevier. <http://www.sciencedirect.com/science/journal/18780296/35>.
2. Editor: "**Waste Management & Resource Utilisation**" the Proceedings of 6<sup>th</sup> International Conference on Solid Waste Management, in November 2016.
3. Editor elect. : Book, "**Waste Management & Resource Utilisation**" the to be published by Springer Publisher.
4. **Associate Editor Selected of Special Issue** : International Journal of Materials Cycle and Waste Management, Member Technical Committee of 4<sup>th</sup> 3RINCs.

*Book Chapters by Prof Sadhan Kumar Ghosh in 2016-17*

1. Sadhan Kumar Ghosh. Sannidhya Kumar Ghosh, (August 2016), Construct and Demolition Waste, Chapter 18, Book : Sustainable Solid Waste Management, American Society of Civil Engineers (ASCE), Editors Prof J. C. Wong et al, Hong Kong. DOI: 10.1061/9780784414101.ch16, pp.511-547.
2. Debnath, R. Baidya, N. T. Biswas, R. Kundu and **S. K. Ghosh**, *E-waste recycling as criteria for Green computing approach: Analysis by QFD tool*, Chapter 17, K. Maharatna et al. (eds.), Computational Advancement in Communication Circuits and Systems, Lecture Notes in Electrical Engineering 335. DOI 10.1007/978-81-322-2274-3\_17.



**4(B) Articles Published in Journals:**

**Prof. Simul Banerjee**

1. Rasmi Ranjan Behera, Ranjan Kr. Ghadai, Kanak Kalita, **Simul Banerjee**, Simultaneous prediction of delamination and surface roughness in drilling GFRP composite using ANN, International Journal of Plastics Technology, August 2016, 20, 2, 424-450.
2. Ashutosh Roushan, Asish Bandyopadhyay, **Simul Banerjee**, Multiple performance characteristics optimization in side and face milling of glass fibre reinforced polyester composite at different weightage of performances by grey relational analysis, International Journal of Machining and Machinability of Materials, January 2017, 19, 1, 41-56.
3. Ushasta Aich, **Simul Banerjee**, Characterizing topography of EDM generated surface by time series and autocorrelation function, Tribology International, February 2017, 111, 73-90.
4. Abhiman Biswas, Ankur Saha, Ushasta Aich, Nipu Modak, **Simul Banerjee**, Optimizing Multiple Responses in Wear Study of Conductive Carbon Fibre Reinforced Epoxy Composite by Grey Relational Analysis, Poster Proceedings of the 6th International and 27th All India Manufacturing Technology, Design and Research Conference, 16<sup>th</sup> - 18<sup>th</sup> December 2016, Pune, India.

**Prof. Kashi Nath Saha**

1. Sushanta Ghuku and Kashinath Saha, A review on stress and deformation analysis of curved beams under large deflection, International Journal of Engineering and Technologies, scipress.com, Volume 11, pp.13-39, 2017.
2. Priyambada Nayak and Kashi Nath Saha, Analysis of statically indeterminate non-uniform bar problem in post elastic domain by an iterative variational method, Applied Mathematical Modelling, (2017), Vol.51, pp.86-108.
3. Priyambada Nayak and Kashi Nath Saha, Optimized design of thermo-mechanically loaded non-uniform bars by using a variational method, 5th International Conference on Mathematical Modeling in Physical Sciences (IC-MSquare 2016) IOP Publishing Journal of Physics: Conference Series 738 (2016) 012002 doi:10.1088/1742-6596/738/1/012002
4. Priyambada Nayak and Kashinath Saha, Elastic limit angular speed of solid and annular disks under thermo-mechanical loading, International Journal of Engineering, Science and Technology (IJEST), Vol. 8, No. 2, 2016, pp. 30-45.
5. Sushanta Ghuku and Kashinath Saha, A semi-analytical solution of statically indeterminate bar problem by using domain decomposition method, Perspectives in Science (2016), <http://dx.doi.org/10.1016/j.pisc.2016.06.051>
6. Sushanta Ghuku and Kashinath Saha, Design development and performance analysis of leaf spring testing set up in elastic domain, Journal of the Association of Engineers, India, (2016), Vol.86, pp.23-42.
7. Sushanta Ghuku, Kashi Nath Saha, An experimental study on stress concentration around a hole under combined bending and stretching stress field, Procedia Technology, (2016), Vol.23, pp.20-27, DOI: 10.1016/j.protcy.2016.03.068.
8. Sushanta Ghuku, Kashi Nath Saha, A theoretical and experimental study on geometric nonlinearity of initially curved cantilever beams, Engineering Science and Technology, an International Journal, (2016), Vol.19, pp.135-146.



**Prof. Nipu Modak (Title of Paper–Name of the Author(s)–Name of the Journal(s)–Pages–Vol. & year)**

- 1 *Operating regimes of a magnetic split-flow thin (SPLITT) fractionation microfluidic device for immunomagnetic separation*–Abhishek Samanta, Nipu Modak, Amitava Datta, Ranjan Ganguly.– *Microfluid and Nanofluid*–1-13–Vol. 20Yr. 2016
- 2 *Reciprocating Friction and Wear Characteristics of Al Particulate Glass Epoxy Composites*–Pujan Sarkar, Nipu Modak, Prasanta Sahoo–*International Journal of Surface Engineering and Interdisciplinary Materials Science*–25-43–Vol. 4(1), Yr. 2016
- 3 *A new product development framework: combining analytical hierarchy process & structural equation modeling approach*–Sudeshna Roy, Nipu Modak, P. K. Dan–*Indian Journal of Engineering :An International Journal*–Pp: 401-407ISSN 2319 –7757 EISSN 2319 –7765–Vol 13(33), Yr. 2016
- 4 *Separation of magnetic beads in a hybrid continuous flow microfluidic device* –Abhishek Samanta, Ranjan Ganguly, Amitava Datta, Nipu Modak.–*Journal of Magnetism and Magnetic Materials*–300-305–Vol. 427Yr. 2017
- 5 *Effect of Aluminium Filler on Friction and Wear Characteristics of Glass Epoxy Composites*–Pujan Sarkar, Nipu Modak, Prasanta Sahoo–*Silicon*–DOI 10.1007/s12633-016-9520-y–Published online: 29 March 2017
- 6 *Effect of normal load and velocity on continuous sliding friction and wear behavior of woven glass fiber reinforced epoxy composite.*–Pujan Sarkar, Nipu Modak, Prasanta Sahoo–*Materials Today: Proceedings, SCOPUS.*–3082-3092 –Vol. 4(2), 2017
- 7 *Mechanical and tribological characteristics of aluminium powder filled glass epoxy composites.*– Pujan Sarkar, Nipu Modak, Prasanta Sahoo–*Materials Today: Proceedings, SCOPUS.*–in press, 2017
- 8 *Mechanical characteristics of aluminium powder filled glass epoxy composites.* –Pujan Sarkar, Nipu Modak, Prasanta Sahoo–*International Journal of Engineering and Technology, INSPEC.*– In Pres, 2017
- 9 *Comparative Evaluation of Mechanical Properties of Sisal-Epoxy Composites With and Without Addition of Aluminium Powder*–Partha Haldara, Nipu Modaka, Goutam Sutradhara–*Materials Today: Proceedings, Scopus*–3397–3406 –Vol. 4, 2017
- 10 *Product Quality as Factors and Measures for New Product Development Success in Indian Manufacturing Industries*–Sudeshna Roy, Nipu Modak, P. K. Dan–*Materials Today: Proceedings, Scopus*–1385–1393–Vol 4, 2017.

**Prof. Dipankar Sanyal**

1. P. Mandal, R. Saha, S. Mookherjee, A. Chatterjee and D. Sanyal, 2016, Lessons learned from using some bio-inspired optimizers for real-time controller design for a low-cost electrohydraulic system, *Appl Soft Comput.*, 48, 638-639, August, Impact Factor 2.857, <http://dx.doi.org/10.1016/j.asoc.2016.07.05640>.
2. A. Datta, D. Sanyal, A. K. Das, 2016, Numerical investigation of heat transfer in microchannel using inclined longitudinal vortex generator, *Applied Thermal Engineering*, 108, 1008-1019, July, Impact Factor 3.269, DOI: <http://dx.doi.org/10.1016/j.applthermaleng.2016.07.165>.

**Prof. Sudipta De**

1. Mondal, S., **De, S.\*** (2017) Ejector based organic flash combined power and refrigeration cycle (EBOFCP&RC) –A scheme for low grade waste heat recovery, **Energy (Elsevier)**, 134, 638-648.
2. Jana, K., Roy, A., Majoumerd, M.M., Assadi, M. and **De, S.\*** (2017): Polygeneration as a future sustainable energy solution - A comprehensive review, **Applied Energy (Elsevier)**, 202, 88-111.

3. Mondal, S., **De, S.** and Assadi, M. (2017): Waste heat recovery from flue gas containing SO<sub>2</sub> through CO<sub>2</sub> based combined power and refrigeration cycle, **Journal of Energy and Environmental Sustainability**, 3, 51-55.
4. Jana, K., Ray, A., **De, S.**, Assadi, M. and Mondal, S. (2017): Performance of a biomass based polygeneration: Second law analysis, **Journal of Energy and Environmental Sustainability**, 3, 37-42.
5. Roy, A. Jana, K., **De, S.\*** (2017) Polygeneration for an off-grid Indian village: optimization by economic and reliability analysis, **Applied Thermal Engineering (Elsevier)**, 117, 182-196.
6. Jana, K. and **De, S.\*** (2017) Environmental impact of biomass based polygeneration – A case study through life cycle assessment; **Bioresource Technology (Elsevier)**, 227, 256-265.
7. Jana, K. and **De, S.\*** (2017) Environmental impact of an agro-waste based polygeneration without and with CO<sub>2</sub> storage: life cycle assessment approach; **Bioresource Technology (Elsevier)** 216, 931-944.
8. Mondal, S., **De, S.\*** (2017) Power by waste heat recovery from low temperature industrial flue gas by Organic Flash Cycle (OFC) and transcritical-CO<sub>2</sub> power cycle: A comparative study through combined thermodynamic and economic analysis; **Energy (Elsevier)**, 121, 832-840.
9. Banik, S., Ray, S., **De, S.** (2016) Thermodynamic modelling of a recompression CO<sub>2</sub> power cycle for low temperature waste heat recovery, **Applied Thermal Engineering (Elsevier)**, 107, 441-452.
10. Jana, K. and **De, S.\*** (2016) Utilizing waste heat of the flue gas for post combustion CO<sub>2</sub> capture – a comparative study for different process layouts; **Energy Sources, Part A: Recovery, Utilization, and Environmental Effects (Taylor and Francis)**; 38(7), 960-966.

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**Prof. Prasanta Sahoo**

1. P Sahoo, Supriyo Roy, Tribological Behavior of Electroless Ni-P, Ni-PW and Ni-P-Cu Coatings: A Comparison, International Journal of Surface Engineering and Interdisciplinary Materials Science, 5(1), 1-15.
2. Arkadeb Mukhopadhyay, Santanu Duari, Tapan Kr Barman, Prasanta Sahoo, Tribology of Electroless Ni-P Coating Under Lubricated Condition: An RSM and GA Approach, International Journal of Surface Engineering and Interdisciplinary Materials Science, 5(1), 37-57.
3. T Jana, A Mitra, P Sahoo, Dynamics of Deformable Fractal Surface in Contact with Harmonically Excited Rigid Flat, International Journal of Manufacturing, Materials, and Mechanical Engineering, 7(2), 40-64.
4. A Mukhopadhyay, TK Barman, P Sahoo, Effect of Operating Temperature on Tribological Behavior of As-Plated Ni-B Coating Deposited by Electroless Method, Tribology Transactions, 1-12.
5. A Mukhopadhyay, S Duari, TK Barman, P Sahoo, Evaluation of tribological properties and optimization of electroless Ni-P-W coating under dry condition using grey fuzzy analysis, Tribology in Industry, 39 (1), 60-62.
6. A Mukhopadhyay, T K Barman, P Sahoo, Effects of heat treatment on tribological behavior of electroless Ni-B coating at elevated temperatures, Surface Review and Letters, 1850014.
7. S Duari, A Mukhopadhyay, TK Barman, P Sahoo, Study of wear and friction of chemically deposited Ni-PW coating under dry and lubricated condition, Surfaces and Interfaces 6, 177-189.

8. S Pradhan, TK Barman, P Sahoo, G Sutradhar, Effect of SiC weight percentage on tribological properties of Al-SiC metal matrix composites under acid environment, *JURNAL TRIBOLOGI* 13, 21-35
9. A Mukhopadhyay, TK Barman, P Sahoo, Tribological behavior of sodium borohydride reduced electroless nickel alloy coatings at room and elevated temperatures, *Surface and Coatings Technology* 321, 464-476.
10. P Sarkar, N Modak, P Sahoo, Effect of Normal Load and Velocity on Continuous Sliding Friction and Wear Behavior of Woven Glass Fiber Reinforced Epoxy Composite, *Materials Today: Proceedings* 4 (2), 3082-3092.
11. S Poria, G Sutradhar, P Sahoo, Design of Experiments Analysis of Friction Behavior of Al-TiB<sub>2</sub> Composite, *Materials Today: Proceedings* 4 (2), 2956-2964.
12. P Gadhari, P Sahoo, Study of wear behavior of Ni-P-TiO<sub>2</sub> composite coatings by optimizing coating parameters *Materials Today: Proceedings* 4 (2), 1883-1892
13. Jana, T., Mitra, A., Sahoo, P., Dynamic contact interactions of fractal surfaces, *Applied Surface Science*, 2017, 392, 872-882.
14. P Sahoo, AK Waghmare, Adhesive friction based on finite element study and n-point asperity model, *Journal of Physics: Conference Series* 2016, 738 (1), 012116.
15. S Poria, P Sahoo, G Sutradhar, Wear performance optimization of stir cast Al-TiB<sub>2</sub> metal matrix composites using Taguchi design of experiments, *IOP Conference Series: Materials Science and Engineering* 2016, 149 (1), 012085.
16. S Pradhan, TK Barman, P Sahoo, G Sutradhar, Wear Behavior of Al-SiC Metal Matrix Composite under various Corrosive Environments, *IOP Conference Series: Materials Science and Engineering* 2016, 149 (1), 012088.
17. A Mukhopadhyay, S Duari, TK Barman, P Sahoo, Wear behavior of electroless Ni-PW coating under lubricated condition-a Taguchi based approach, *IOP Conference Series: Materials Science and Engineering* 2016, 149 (1), 012004.
18. S Kundu, SK Das, P Sahoo, Influence of load and temperature on tribological behaviour of electroless Ni-P deposits, *IOP Conference Series: Materials Science and Engineering* 2016, 149 (1), 012046.
19. A Biswas, SK Das, P Sahoo, Effect of heat treatment duration on tribological behavior of electroless Ni-(high) P coatings, *IOP Conference Series: Materials Science and Engineering* 2016, 149 (1), 012045.
20. A Mukhopadhyay, S Duari, TK Barman, P Sahoo, Optimization of Friction and Wear Properties of Electroless Ni-P Coatings Under Lubrication Using Grey Fuzzy Logic, *Journal of The Institution of Engineers (India): Series D*, 1-14
21. S Duari, A Mukhopadhyay, TK Barman, P Sahoo, Investigation of Friction and Wear Properties of Electroless Ni-P-Cu Coating Under Dry Condition, *Journal of Molecular and Engineering Materials* 4 (04), 1640013.
22. Mukhopadhyay, A., Duari, S., Barman, T. K. and Sahoo, P., Optimization of wear behavior of electroless Ni-P-W coating under dry and lubricated conditions using genetic algorithm (GA). *Jurnal Tribologi* 2016, 11, 24-48.
23. Mukhopadhyay, A., Duari, S., Barman, T. K. and Sahoo, P., Investigation of Wear Behavior of Electroless Ni-P-W Coating under Dry and Lubricated Conditions Using RSM and Fuzzy Logic, *Portugaliae Electrochimica Acta* 2016, 34(4), 231-255.

24. Pradhan, S., Ghosh, S., Barman, T. K., Sahoo, P., Tribological behavior of Al-SiC metal matrix composite under dry, aqueous and alkaline medium, *Silicon*, 2016, in press, DOI: 10.1007/s12633-016-9504-y.
25. Kundu, S., Das, S. K. and Sahoo, P., Tribological Behaviour of Electroless Ni-P Deposits under Elevated Temperature, *Silicon*, 2016, in press DOI 10.1007/s12633-016-9450-8.
26. Gadhari, P. and Sahoo, P., Effect of Annealing Temperature and Alumina Particles on Mechanical and Tribological Properties of Ni-P-Al<sub>2</sub>O<sub>3</sub> Composite Coatings, *Silicon*, 2016, in press DOI 10.1007/s12633-016-9452-6
27. Pradhan, S., Barman, T. K., Sahoo, P., Sutradhar, G., Ghosh, S., Tribological Behavior of Al-SiC Metal Matrix Composite in Acidic Medium, *International Journal of Engineering and Technologies*, 2016, 8, 24-31.
28. Mukhopadhyay, A., Duari, S., Barman, T. K. and Sahoo, P., Wear Analysis of Electroless Ni-P Coating Under Lubricated Condition Using Fuzzy Logic, *Portugaliae Electrochimica Acta* 2016, 34(1), 63-83.
29. Duari, S., Mukhopadhyay, A., Barman, T. K. and Sahoo, P., Optimization of Wear Performance of Electroless Ni-B Coating Under Lubrication, *International Journal of Engineering and Technologies*, 2016, 7, 94-103.
30. Poria, S., Sutradhar, G. and Sahoo, P., Tribological Characterization of Stir-cast Aluminium-TiB<sub>2</sub> Metal Matrix Composites, *Silicon*, 2016, 8(4), 591-599.
31. Barman, TK and Sahoo, P., Relating fractal dimension with roughness parameters in brass turning, *Advanced Materials Manufacturing and Characterization*, 2016, 6(1), 29-33.
32. Panja, B., Das S K and Sahoo, P., Tribological behavior of Electroless Ni-P Coatings in Various Corrosive Environments, *Surface Review and Letters*, 2016, 23 (5), 1650040 (18 pages)
33. Waghmare, A. K. and Sahoo, P., Friction analysis at elastic-plastic contact of rough surfaces using n-point asperity model, *Proc. I. Mech. E. Part J: Journal of Engineering Technology*, 2016, 230(10), 1258-1272. DOI: 10.1177/1350650116632018.
34. Mukhopadhyay, A., Duari, S., Barman, T. K. and Sahoo, P., Tribological Performance Optimization of Electroless Ni-B Coating under Lubricated Condition using Hybrid Grey Fuzzy Logic, *Journal of Institution of Engineers India Series D*, 2016, 97 (2), 215-231.
35. Bhowmik S, Sahoo P, Acharyya S K, Dhar S and Chattopadhyay J, Effect of Microstructure Degradation on Fracture Toughness of 20MnMoNi55 Steel in DBT Region, *International Journal of Manufacturing, Materials and Mechanical Engineering*, 2016, 6(3), 11-27.
36. Sarkar, P., Modak, N. and Sahoo, P., Reciprocating friction and wear characteristics of Al particulate glass epoxy composites, *International Journal of Surface Engineering and Interdisciplinary Materials Science*, 2016, 4(1), 25-44.
37. Waghmare, A. K. and Sahoo, P., Adhesive wear based on accurate FEA study of asperity contact and n-Point asperity model, *International Journal of Surface Engineering and Interdisciplinary Materials Science*, 2016, 4(1), 1-24.
38. Sudeepan, J., Kumar, K., Barman, T. K. and Sahoo, P., Mechanical and tribological behavior of ABS/TiO<sub>2</sub> polymer composites and optimization of tribological properties using grey relational analysis, *Journal of Institution of Engineers India Series C*, 2016, 97(1), 41-53.
39. Gadhari, P. and Sahoo, P., Electroless Nickel-Phosphorus Composite Coatings - A Review, *International Journal of Manufacturing, Materials and Mechanical Engineering*, 2016, 6(1), 14-50.

40. Gadhari, P. and Sahoo, P., Effect of TiO<sub>2</sub> particles on micro-hardness, corrosion, wear and friction of Ni-P-TiO<sub>2</sub> composite coatings at different annealing temperatures, *Surface Review and Letters*, 2016, 23 (1), 1550082 (15 pages).

**Prof. A.S. Das**

H. K. Roy, **A. S. Das**, J. K. Dutt, An efficient rotor suspension with active magnetic bearings having viscoelastic control law, *Mechanism and Machine Theory*, 98, April 2016.

(This paper has been published in April 2016 issue of the journal. Since it was accepted earlier and appeared online, I provided this information for the departmental profile of the previous academic year, i.e., 2015-2016)

**Prof. Goutam Pohit**

1. Sahoo, Bamadev, Panda, L.N. and Pohit, G., "Combination, principal parametric and internal resonances of an accelerating beam under two frequency parametric excitation," *International Journal of Non-Linear Mechanics* 78 (2016) 35–44, 2016.
2. Sahoo, Bamadev, Panda, L.N. and Pohit, G., "Nonlinear Dynamics of Traveling Continua with low flexural stiffness under Parametric and Internal Resonances," *Procedia Engineering*, (2016) pp. 406-413.
3. Sahoo, Bamadev, Panda, L.N. and Pohit, G., "Stability, Bifurcation and Chaos of a Traveling viscoelastic Beam tuned to 3:1 Internal Resonance and subjected to Parametric Excitation," Accepted for publication in *International Journal of Bifurcation and Chaos*, Vol. 27, No. 2, 2017, pp 1-20.
4. Panigrahi, Brajesh and Pohit, G., "Effect of cracks on nonlinear flexural vibration of rotating Timoshenko functionally graded material beam having large amplitude motion", *Proc IMechE Part C: J Mechanical Engineering Science*, DOI: 10.1177/0954406217694213. 2017.
5. Jena, Pankaj C., Pohit, G. and Parhi, Dayal R., "Fault Measurement in Composite Structure by Fuzzy-Neuro Hybrid Technique from the Natural frequency and Fibre Orientation", *Journal of Vibration Engineering & Technologies*, Vol. 5. No. 2. 2017, pp. 126-138.

**Prof. Himadri Chattopadhyay**

1. Bhattacharya, H., Chattopadhyay, H., Bandyopadhyay, S., Roy, S., Pal, A., Bhattacharjee, S., (2016), Experimental investigation on heat transfer enhancement by swirl generators in a solar air heater duct *International Journal of Heat and Technology*, **34(2)**, 191-196.
2. Banerjee. J.A., Biswal, K.M., Lohar, K. A., Chattopadhyay, H., Hanumaiah, (2016), Review on experimental study of Nd: YAG laser beam welding, with a focus on aluminium metal matrix composites, *International Journal of Engineering & Technology*, **5(3)**, 92-101.
3. Simlandi, S., Barman, N., Chattopadhyay, H., (2016), Behaviour of Semisolid Slurry Flows through a Channel, *Solid State Phenomena*, vol. **256**.
4. Bhattacharya, S., Chattopadhyay, H., Bandyopadhyay, S., (2016), Numerical study on heat transfer enhancement through a circular duct fitted with centre-trimmed twisted tape, *International Journal of Heat and Technology*, **34(3)**, 401-406.
5. Sinha, A., Chattopadhyay, H., Iyengar, K.A., Biawas, G., (2016), Enhancement of heat transfer in a fin-tube heat exchanger using rectangular winglet type vortex generators, *International Journal of Heat and Mass Transfer*, **101**, 667-681.
6. Bhattacharya, S., Chattopadhyay, H., Swami, A., Uddin, K. Md., (2016), Convective Heat Transfer Enhancement and Entropy Generation of Laminar Flow of Water through a Wavy Channel, *International Journal of Heat and Technology*, **34(4)**, 727-733.



7. Bhattacharya, S., Chattopadhyay, H., Benim, C.A., (2016), Heat transfer enhancement of laminar flow of ethylene glycol through a square channel fitted with angular cut wavy strip, *Procedia Engineering*, **157**, 19-28.
8. Bhattacharya, S., Chattopadhyay, H., Benim, C.A., (2016), Simulation of heat transfer enhancement in tube flow with twisted tape insert, *Progress in Computational Fluid Dynamics, an International Journal*, **17(3)**, 193-197.
9. Bit, A., Ghagare D., Rizvanov, A., Chattopadhyay , H., (2017), Assessment of Influences of Stenoses in Right Carotid Artery on Left Carotid Artery Using Wall Stress Marker, *BioMed Research International*, 2017.
10. Bit, A., Ghagare, D., Rizvanov, A. A., Chattopadhyay, H.,(2017), Assessment of Influences of Stenoses in Right Carotid Artery on Left Carotid Artery Using Wall Stress Marker, *BioMed research international*, 2017.
11. Kadiyala, K.P., Chattopadhyay, H., (2017), Numerical Simulation of Transport Phenomena Due to Array of Round Jets Impinging on Hot Moving Surface , *Drying Technology*, just accepted.
12. Kadiyala, K.P., Chattopadhyay, H., (2017), Numerical Analysis of Heat Transfer from a Moving Surface Due to Impingement of Slot Jets , 1-9.
13. Chattopadhyay, H., Samanta, K.S., Biswas, G., Sharma, B, B., (2017), Direct numerical simulation of evaporation in a biporous media, *Journal of Mechanical Science and Technology*, **31(6)**, 2635-2641.

**Prof. Sadhan Kumar Ghosh**

1. **Ghosh, S. K.**, Debnath, B., Baidya, R., De, D., Li, J., Ghosh, S. K., Zheng, L., Awasthi, A.K., Liubarskaia, M.A., Ogola, J.S. & Tavares, A. N. (2016). Waste electrical and electronic equipment management and Basel Convention compliance in Brazil, Russia, India, China and South Africa (BRICS) nations. *Waste Management & Research*, 34(8), 693-707. (Impact Factor: 1.9) (**Editor's Choice Paper for August 2016**).
2. Amit K. Chattopadhyay, Prasanta K. Dey, **Sadhan K. Ghosh**, (2017). Dynamics of spatial heterogeneity in a landfill with interacting phase densities – A stochastic analysis, *International Journal of Applied Mathematical Modelling. Applied Mathematical Modelling*, <https://doi.org/10.1016/j.apm.2016.08.026>; Volume 41, January 2017, Pages 350-358.
3. Baidya, R., **Ghosh, S.K.**, Parlikar, U.V, (2017), Sustainability of Cement Kiln Co-Processing of Wastes in India: A Pilot Study, *Environmental Technology*, 1-10. DOI: <http://dx.doi.org/10.1080/09593330.2017.1293738>.
4. Rahul Baidya, Prasanta Dey, **Sadhan Ghosh**, (2016). Konstantinos Petridis, Strategic maintenance technique selection using combined quality function deployment, the analytic hierarchy process and the benefit of doubt approach, *Int Journal of Adv Manufacturing Technology*, DOI 10.1007/s00170-016-9540-1.(2016).
5. Asit Aich, **Sadhan Kumar Ghosh**, (2016). Organic fraction of municipal solid waste – a valuable source of green energy in India , *International Journal of Energy Sector Management*, Vol. 10 No. 4, 2016, p. 000 © Emerald Group Publishing Limited, 1750-6220, DOI 10.1108/IJESM-06-2015-0001, ISSN: 1750-6220.
6. Debnath, B., Raychaudhuri, A., & **Ghosh, S. K.** (2016). Analysis of Grey Water Recycling Technologies using Analytical Hierarchical Process. *Journal of Solid Waste Technology &*



*Management*, 42(1), 559-568. [via The 31<sup>st</sup> International Conference on Solid Waste Technology and Management 2016, 3 – 6<sup>TH</sup> April 2016]

7. Debnath, B., Chowdhury, R., & **Ghosh, S. K.** (2016). Bio-metallurgical recovery of Gold from Printed Circuit Boards (PCB): A Review. *Journal of Solid Waste Technology & Management*, 42(1), 760-770. [via The 31<sup>st</sup> International Conference on Solid Waste Technology and Management 2016, 3 – 6<sup>TH</sup> April 2016]
8. Haldar, H. S., Chatterjee, S., Debnath, B., Ghosh, S. K., **Ghosh, S. K.** (2016). Post Earthquake C&D Waste Management-Case studies of Nepal. *Journal of Solid Waste Technology & Management*, 42(1), 486-498. [via The 31<sup>st</sup> International Conference on Solid Waste Technology and Management 2016, 3 – 6<sup>TH</sup> April 2016]
9. **Ghosh, S. K.**, Roychoudhuri, R., Wath, S. B., Debnath, B., Jayakumar, S., & Maloo, A. (2016). Waste Management in India: E-waste recycling & Bio-methanation-Case studies. *Journal of Solid Waste Technology & Management*, 42(1), 748-759. [via The 31<sup>st</sup> International Conference on Solid Waste Technology and Management 2016, 3 – 6<sup>TH</sup> April 2016].
10. Baidya, R., Dey, P. K., **Ghosh, S. K.**, & Petridis, K. (2016). Strategic maintenance technique selection using combined quality function deployment, the analytic hierarchy process and the benefit of doubt approach. *The International Journal of Advanced Manufacturing Technology*, 1-14. DOI: 10.1007/s00170-016-9540-1
11. Baidya, R., **Ghosh, S. K.**, & Parlikar, U. V. (2016). Co-processing of industrial waste in Cement Kiln—A Robust system for material and energy recovery. *Procedia Environmental Sciences*, 31, 309-317, DOI: <https://doi.org/10.1016/j.proenv.2016.02.041>
12. Baidya, R., Debnath, B., De, D., & **Ghosh, S. K.** (2016). Sustainability of modern scientific waste compacting stations in the city of Kolkata. *Procedia Environmental Sciences*, 31, 520-529, DOI: <https://doi.org/10.1016/j.proenv.2016.02.072>
13. Parlikar, U., Bundela, P. S., Baidya, R., Ghosh, S. K., **Ghosh, S. K.** (2016). Effect of Variation in the Chemical Constituents of Wastes on the Co-processing Performance of the Cement Kilns. *Procedia Environmental Sciences*, 35, 506-512. DOI: <https://doi.org/10.1016/j.proenv.2016.07.035>
14. Baidya, R., **Ghosh, S. K.** (2016). Utilization of Discarded Waste in a Composting Plant for Energy Recovery by Plasma Gasification-a Proposed Model. *Journal of Solid Waste Technology & Management*, 42(1), 806-813.
15. Baidya, R., **Ghosh, S. K.** (2016). Plasma Gasification Technology for Energy Recovery from Waste. *Journal of Solid Waste Technology & Management*, 42(1), 794-805.
16. Debnath B., Chowdhury., R., **Ghosh S. K.**, “Sustainability of Metal Recovery from E-waste.” *Frontiers of Environmental Science and Engineering* (Impact Factor: 1.799) Status: Under Review.

*Publication in International conference Proceedings By Prof. S.K. Ghosh*

1. Sadhan Kumar Ghosh, (2016). Potential of economic utilization of biomass waste in India - Implications towards SDGs, (Short Background Paper for Plenary Session 3 of the Programme), Seventh Regional 3R Forum in Asia and the Pacific. 2-4 November, 2016, Adelaide, SA, Australia by UNCRD, Japan.

2. Sadhan Kumar Ghosh, (2016). Sustainable SWM in Developing Countries Focusing on Faster Growing Economies, India and China, International Conference on Solid Waste Management, 5IconSWM 2015, Procedia Environmental Sciences, 35 ( 2016 ),p176 – 184.
3. Sadhan K Ghosh, H.S. Haldar, S. Chatterjee, P. Ghosh (2016). An Optimization Model on Construction and Demolition Waste Quantification from Building, International Conference on Solid Waste Management, 5IconSWM 2015; Procedia Environmental Sciences 35 (2016), 279 – 288, 1878-0296. DOI: 10.1016/j.proenv.2016.07.008;
4. Aich, A., Sadhan K Ghosh (2016), Application of SWOT Analysis for the Selection of Technology for Processing and Disposal of MSW, International Conference on Solid Waste Management, 5IconSWM 2015; Procedia Environmental Sciences,35 ( 2016),209–228. 1878-0296.
5. Sadhan Kumar Ghosh, (2016), Swachhaa Bharat Mission (SBM) – A Paradigm Shift in Waste Management and Cleanliness in India, Procedia Environmental Sciences, 35 (2016)15 – 27; 1878-0296. DOI: 10.1016/j.proenv.2016.07.008;
6. Sadhan Kumar Ghosh, (2016), Biomass & Bio-waste Supply Chain Sustainability for Bio-energy and Bio-fuel Production, The Tenth International Conference on Waste Management and Technology (ICWMT), Procedia Environmental Sciences, 31 (2016 ), 31 – 39.
7. Debnath., B., **Ghosh, S.K.** (2017). *E-waste Recycling in India: A Case Study*. The 32<sup>nd</sup> International Conference on Solid Waste Technology and Management (ICSW 2017), Philadelphia, PA, USA, 19-22 March, 2017, pp.223 – 232.
8. Ipsita Saha, Sadhan K. Ghosh, Amit Kundu, (2017), Novel Approach for Laptop and Cell Phone Waste Management Using Cloud Based Data Storage Systems, The 32<sup>nd</sup> International Conference on Solid Waste Technology and Management (ICSW 2017), Philadelphia, PA, USA, 19-22 March, 2017.
9. Debnath., B., Roychoudhuri., R., & **Ghosh, S.K.** (2017). *Sustainability Analysis of Green Computing Alternatives using AHP and QFD*. The 32<sup>nd</sup> International Conference on Solid Waste Technology and Management (ICSW 2017), Philadelphia, PA, USA, 19-22 March, 2017, pp.450 – 459.
10. Debnath., B., Chowdhury., R., & **Ghosh, S. K.** (2017). *Studies on Resource Recovery from E-waste via Thermochemical Route*. 4<sup>th</sup> 3R International Scientific Conference on Material Cycles and Waste Management, India Habitat Centre, New Delhi, India, 8-10 March, 2017. (**Extended Abstract only**).
11. Debnath., B., Chowdhury., R. & **Ghosh, S. K.** (2016). *Studies on Co-pyrolysis of E-waste and Biomass*. The 69<sup>th</sup> Annual Session of Indian Institute of Chemical Engineers CHEMCON 2016, pp. 346, Chennai, India, 27-30 December, 2016. (**Abstract only**).
12. Debnath., B., Chowdhury., R. **Ghosh, S. K.** (2016). *An Analysis of E-waste Recycling Technologies from the Chemical Engineering Perspective..* 6<sup>th</sup> International Conference on Solid Waste Management (6<sup>th</sup> IconSWM), pp. 1189 – 1195, Jadavpur University, Kolkata, India, 24-26 November, 2016. (**Publication in Springer Book Chapter Awaited**).
13. Roychoudhuri., R., Debnath., B., De., D., Albores., P., Banerjee., C., **Ghosh, S. K.** (2016). *Estimation of E-waste generation – A lifecycle based approach*. 6<sup>th</sup> International Conference on Solid Waste Management (6<sup>th</sup> IconSWM), pp. 1129-1124, Jadavpur University, Kolkata, India, 24-26 November, 2016. (**Publication in Springer Book Chapter Awaited**).

14. Baidya., R., Debnath., B., **Ghosh, S. K.** (2016). *Analysis of E-waste supply chain framework in India using Analytical Hierarchy Process*. 6<sup>th</sup> International Conference on Solid Waste Management (6<sup>th</sup> IconSWM), pp. 1181-1188, Jadavpur University, Kolkata, India, 24-26 November, 2016. **(Publication in Springer Book Chapter Awaited)**
15. Mukherjee., A., Debnath., B., **Ghosh, S. K.** (2016). *Carbon Nanotubes as a Resourceful product Derived from Waste Plastic – A Review*. 6<sup>th</sup> International Conference on Solid Waste Management (6<sup>th</sup> IconSWM), pp. 1234 – 1247, Jadavpur University, Kolkata, India, 24-26 November, 2016. **(Publication in Springer Book Chapter Awaited)**
16. Debnath B., Chowdhury., R., and **Ghosh S. K.**, *Sustainability of Metal Recovery from E-waste*. The Eleventh International Conference on Waste Management and Technology (ICWMT 10), China, October, 2016.
17. Debnath B., Roychoudhuri., R., and **Ghosh S. K.**, *Risk Assessment of WEEE over the whole Lifespan of EEE using ISO 9001:2015 Standard*. The Eleventh International Conference on Waste Management and Technology (ICWMT 10), China, October, 2016.
18. Debnath, B., Roychoudhuri, R., **Ghosh, S. K.** (2016). E-Waste Management–A Potential Route to Green Computing. *Procedia Environmental Sciences*, 35, 669-675. [via 5<sup>th</sup> International Conference on Solid Waste management (5<sup>th</sup> IconSWM), IISC Bangalore, India, 24-27 November, 2015] **(Excellent Paper Award)**.
19. Mukherjee, A., Debnath, B., **Ghosh, S. K.** (2016). A Review on Technologies of Removal of Dioxins and Furans from Incinerator Flue Gas. *Procedia Environmental Sciences*, 35, 528-540. [via 5<sup>th</sup> International Conference on Solid Waste management (5<sup>th</sup> IconSWM), IISC Bangalore, India, 24-27 November, 2015].
20. Payel Ghosh, **Sadhan Kumar Ghosh**, (2016). Cost Analysis of Municipal Solid Waste Management Using Waste Compacting Stations: A Case Study, Proceeding of 6th International Conference on Solid Waste Management, November 25-27, 2016, Kolkata, India. [ISBN 81-86862-56-0].
21. Payel Ghosh, **Sadhan Kumar Ghosh**, (2016). Construction and Demolition Waste Management using Fuzzy Goal Programming, The Thirty-First International Conference on Solid Waste Technology and Management, April 3- 6, 2016, Philadelphia, PA U.S.A. [ISSN: 1088-1697].
22. Sutripta Sarkar, **Sadhan K Ghosh** (2017). Impact of Composting and Landfill emissions of climate change. The 32nd International Conference on Solid waste Technology and Management Proceedings ( ISSN 1091-8043). pp 469-474.
23. Ankita Das, **Sadhan K Ghosh** (2016). Developing a Decision Support System for Municipal Vacant Land and Waste Management with Optimised Route Technique, Proceedings of the 6th International Conference on Solid Waste Management, November 25-27, 2016, Kolkata, India. [ISBN 81-86862-56-0].
24. **Ghosh S.K.**, Roychoudhuri R., Wath S.B., Debnath B., Jayakumar S., Maloo A., “Waste Management in India: E-waste Recycling & Bi-omethanation - Case Studies.” The Thirty First International Conference on Solid Waste Technology and Management, Philadelphia, USA. April 2016.
25. **Sadhan Kumar Ghosh**, Joonheon Lee, Achi Chibueze Godwin, Adekunle Oke, Reem Al-Rawi , Mervat El-Hoz, “Waste Management in USA through Case Studies: E-waste Recycling and Waste to

Energy “, The Thirty First International Conference on Solid Waste Technology and Management, Philadelphia, USA. April 2016.

26. Raychaudhuri, A., **Ghosh, S. K.** (2016). Lignocellulosic Biomass Supply Chain for Bioethanol Production. *Journal of Solid Waste Technology & Management*, 42(1).
27. El-Hoz, M., Aremu, A. S., Roychoudhury, A., Ojowuro, O. M., Ugunbiyi, A., **Ghosh, S. K.** (2016). Strategies for Reducing Municipal Solid Waste in Lebanon, Nigeria and India. *Journal of Solid Waste Technology & Management*, 42(1).
28. Das, M., **Ghosh, S. K.** (2016). Comparative Study of Whey Utilization in India, New Zealand, and Australia-Identifying Untapped Potential and Means of Utilization. *Journal of Solid Waste Technology & Management*, 42(1).

*Posters in Conference proceedings & other competitions*

1. Biswajit Debnath, Aryama Raychaudhuri, Sadhan Kumar Ghosh, “Hydrogen Generation from Biorefinery Waste Streams: Recent Trends and Advancements”; Asia-Pacific Conference on Biotechnology Waste Conversion 2016, pp. 213, Hong Kong Baptist University, Hong Kong SAR, P.R. China, 5-8th December, 2016.
2. Biswajit Debnath, Aryama Raychaudhuri, Sadhan Kumar Ghosh, “Sustainability of Hydrogen generation from Biomass and waste from Biorefineries”; ICT/BIO Asia workshop 2016, University of Malaya, Malaysia, 30-31th May, 2016

**Prof. Debabrata Das**

- (i) Amlan Paul & **Debabrata Das**, Non-linear thermal post-buckling analysis of FGM Timoshenko beam under non-uniform temperature rise across thickness, *Engineering Science and Technology An International Journal*, 19 (2016) 1608–1625.
- (ii) Aritra Majumdar and **Debabrata Das**, A study on thermal buckling load of clamped functionally graded beams under linear and nonlinear thermal gradient across thickness, *Proc IMechE Part L: Journal of Materials: Design and Applications*, (2016) DOI: 10.1177/1464420716649213.
- (iii) **Debabrata Das**, A new tangent stiffness-based formulation to study the free vibration behavior of a transversely loaded Timoshenko beam with geometric nonlinearity, *Journal of Vibration and Control*, (2016) DOI: 10.1177/1077546316668457.
- (iv) Amlan Paul & **Debabrata Das**, A study on non-linear post-buckling behavior of tapered Timoshenko beam made of functionally graded material under in-plane thermal loadings, *Journal of Strain Analysis for Engineering Design*, 52 (2016) 45-56.

**Prof. Swarnendu Sen**

1. Priyankan Datta<sup>b</sup>, Aranyak Chakravarty<sup>a, b</sup>, Koushik Ghosh<sup>b</sup>, Achintya Mukhopadhyay<sup>b</sup>, Swarnendu Sen<sup>b</sup>. *A numerical analysis on the effect of inlet parameters for condensation induced water hammer*, *Nuclear Engineering and Design*, 304 (2016) 50-62
2. Aranyak Chakravarty <sup>a, b</sup>, Priyankan Datta<sup>b</sup>, Koushik Ghosh<sup>b</sup>, Swarnendu Sen<sup>b</sup>, Achintya Mukhopadhyay<sup>b</sup>. *Thermal Non-equilibrium Heat Transfer and Entropy Generation due to Natural Convection in a Cylindrical Enclosure with a Truncated Conical, Heat-Generating Porous Bed*, *Transport in Porous Media*, 116 (2017) 353-377

3. Priyankan Datta <sup>b</sup>, Aranyak Chakravarty <sup>a, b</sup>, Koushik Ghosh <sup>b</sup>, Achintya Mukhopadhyay <sup>b</sup>, Swarnendu Sen <sup>b</sup>. *Modelling aspects of vapour bubble condensation in subcooled liquid using VOF approach*, Numerical Heat Transfer A (accepted)

## 5. Collaborative Programme :

### Prof. Sudipta De

International collaboration under Indo-Norwegian Cooperation Program (INCP)

### Prof. A.S. Das

Collaborative research project titled “Investigation of the Performance of a Rotor-Shaft System Supported on Magnetic-Bearings mounted on a Maneuvering Marine Vessel based on the Stability and Vibration Response” funded by NRB, DRDO. Collaboration is with Prof. J.K.Dutt, IIT Delhi.

This project was sanctioned and commenced on academic year 2015-2016. Academic year 2016-2017 was the 2<sup>nd</sup> year of execution of this project. This will be expected to be concluded at end of academic year 2017-2018.

## 6. Major Achievements of the Department:

### Prof. Prokash Chandra Roy

Awarded “Best Oral Presentation” at 7<sup>th</sup> International Conference on Mechanical and Aerospace Engineering (ICMAE2016) at London, UK, during 18-07-2016 to 22-07-2016

### Prof. Sadhan Kumar Ghosh

1. **Host Scientist for Post Doc Research** : Dr Rabetokotany Rarivoson Nantenaina, Mention Ingénierie Pétrolière Ecole Supérieure Polytechnique, Université d’Antananarivo, BP 1500 Ambohitsaina, Antananarivo 101, MADAGASCAR worked for post doc research for a month under the guidance of Prof Sadhan Kumar Ghosh under C V Raman International Fellowship for African Researchers 2014 programme in January – February 2017.
2. **Editor’s Choice Paper for August 2016** : Paper “Waste electrical and electronic equipment management and Basel Convention compliance in Brazil, Russia, India, China and South Africa (BRICS) nations” was selected as the Editor’s Choice Paper for August 2016 by *Waste Management & Research*, 34(8), 693-707.
3. **International Expert of UNCRD** (United Nations Centre for Regional Development) : Acted as the International Expert of UNCRD for preparation of the country document on the “Potential of economic utilization of biomass waste in India~Implications towards SDGs’ and as the Facilitated /Moderated for the open discussion in the Country Presentations on Afghanistan, Cambodia, Lao PDR, the Republic of Korea, Niue, Vanuatu, Tuvalu in the “7th Regional 3R forum in Asia and the Pacific”, 2-4 November 2016, Adelaide Convention Centre, Adelaide, Australia.
4. **International Expert of APO, Japan** (Asian Productivity Council, Japan) : Acted as the International Expert of APO at the CPC (China Productivity Council, Taiwan) in the Research on GP for the Base of the Pyramid for Sustainable Development in APO Member Countries with Coordination meeting during 3-5 May, 2016 at Taipei, ROC for one year , May 2016 – April 2017.
5. **Invited & delivered the Opening Plenary Speech in Philadelphia, USA in 32<sup>nd</sup>** International Conference on Solid Waste Technology and Management, on “3R and Circular Economy in Waste Management”, by Widener University, USA held during March 19-22, 2017.



6. **Invited to deliver The opening Plenary speech in Philadelphia, USA on** “Global Circular Economy in Waste Management in Asia”, in the Thirty First International Conference on Solid Waste Technology and Management, Philadelphia, Widener University, USA to be held in April 2016.
7. **Invited to act as the Organising Chairman** of the 4<sup>th</sup> 3R International Scientific Conference ( 4<sup>th</sup> 3RINCs) by the International Committee on Material Cycles and Waste Management to be held in New Delhi in March 2017.
8. **Selected as the Chairman**, 7<sup>th</sup> International Conference on Solid Waste Management, 7<sup>th</sup> IconSWM 2017 to be held at PJTSA University, Rajendranagar, Hyderabad, India to be held during December 15-17, 2017.
9. **Collaboration with Tsinghua University, Beijing, and Hefei University, Hefei, China** : Extended the additional research collaboration of the existing one between Prof. Sadhan Kumar Ghosh of *mechanical engineering department* and Prof Jinhui Li, of the *department of environment engineering* at Tsinghua University, and Basel Convention Resource Centre, Beijing, China for next one year during October 22-24, 2016 at Beijing, China and Prof Wu Ke and Mr Honglei of Hefei University, Hefei, China in May 2016.
10. **Collaboration initiation with the University of Danang, Vietnam and National University of Laos, Vientiane** : Collaborative meeting initiated with the researchers of University of Danang, Vietnam and National University of Laos, Vientiane for joint research and publication between Prof. Sadhan Kumar Ghosh of *mechanical engineering department* and *faculty members of different departments* of both Universities held during October 25-26, 2016 at Laos, Vientiane.

**Prof. Swarnendu Sen**

- Awarded as Fellow of International Society for Energy, Environment and Sustainability

**METALLURGICAL & MATERIAL ENGINEERING**

Phone : + 91-33-2414-6940  
Int. : 2457-2325  
H.O.D. : Prof. Akshay Kr. Pramanick  
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- 1. A. Courses Offered:**
- 4 - Year BE degree in Metallurgical Engg.
  - 2 - Year ME degree in Industrial Metallurgy
  - 2 - Year M.Tech degree in Material Engineering
- Undergraduate Students: 40 Nos.  
ME degree in Industrial Metallurgy Students: 10 Nos.  
M.Tech degree in Material Engineering Students: 18 Nos.



**1. B. Number of Faculty Members: 8**

**2. A. Area of Research Activities:**

2. Nano Materials, Extraction of Metals, Melting & Solidification, Corrosion behavior of Metal & Material, Deformation Fatigue & fracture of materials, Welding Technology, Thermodynamics and Kinetics, Chemical/Extractive Metallurgy, Transport Phenomena, Material Processing, Archaeo Metallurgy, Waste utilization. Chemical Processing, Characterization of Materials, Corrosion, Fuel Cell, Energy Materials, Modeling & Simulation, Composites, Nanocomposites, Metal Matrix Composites, Metal-Ceramic, Mineral Processing, Nanostructured Materials, Ceramic Materials, Welding/Joining, Electrode development.

**2. B. Major Research Project:**

**Amrita Kundu**

**Funded Project : (Title of the Project–Funding Agency–Period–Amount)**

Faculty Training and Internationalization (2016 17) Grant (Principal Investigator)–Shastri Indo Canadian Institute–2016-2017–CAD\$ 5,000.00

Cyclic Plastic Deformation Behaviour of 304LN Austenitic Stainless Steel at Room Temperature to 550 deg C (Principal Investigator)–DST (GOI)–2016-2019–Rs. 40 Lakhs

Development of mixed microstructure by thermomechanical processing of steel and its influence on mechanical properties (Sole Investigator)–DST (GOI)–2012-2017–Rs. 35 Lakhs

Mechanical and corrosion behaviour of LASER welded dual phase steel (Sole Investigator)–University Grant Commission –(GOI)–2015-2017–Rs. 6 Lakhs

Fatigue and fracture behaviour of ultra high strength bainitic steel (Co-Principal Investigator)–Tata Steel Europe–2015- 2019–Rs. 30 Lakhs

**3. A. Invited Lectures Delivered/Sessions Chaired:**

**Dr. A. Kundu**

- Measurement of residual stress by neutron diffraction in electron beam welded P 91 steel plates, workshop on Advances in Joining Processes, organised by Centre of Excellence, TEQIP II, Jadavpur University, Sept 22-23, 2016.
- Influence of microsegregation of Nb on development of grain structure in commercial Nb containing steel, workshop on Solidification and Phase Transformation, organised by Centre of Excellence, TEQIP II, Jadavpur University, Aug 26-27, 2016.

**3. B. Seminar/Workshop/Conference/Symposium Attended:**

**Dr. Rajib Dey: (Name of the Seminar/Workshop/Conference/Symposium–Place–Duration)**

Technologies for making Iron & Steel at Competitive Costs, Steel Tech, 2016–Taj Bengal, Kolkata–One day

National Seminar on Environmental and Social Impact of Mining and Mitigation thereof, MGMI India, 2016–Hotel Oberoi Grand, Kolkata–One day

India Infrastructure : New Avenues and Challenges: Conclave Program, BCC&I, The Bengal Chamber–Hotel Hyatt Regency, Kolkata–One day

Workshop on Materials Characterisation Techniques, COE, TEQIP Jadavpur University–Jadavpur University–One day

Indian Foundry Convention - East : Committed to Make in India, Indian Foundry Organisation–Hotel ITC Sonar–One day

Deformation and Texture of Materials, COE, TEQIP Jadavpur University–Jadavpur University–One day

Emerging Technologies and Application for Steelmaking, Continuous Casting, Rolling & Finishing Mills, Steel & Metallurgy–Hotel Gateway–One day

Current Dynamics of Steel in India, BCC&I, The Bengal Chamber–Taj Bengal, Kolkata–One day

Initiatives in Outcome Based Education and NBA Accreditation, Engineering Staff College of India–Hotel Hyatt Regency, Kolkata–One day

**Dr. Sathi Banerjee**

Workshop on Materials Characterisation Techniques, COE, TEQIP Jadavpur University–Jadavpur University–One day

Indo-Belgian workshop on Crystallography & Texture–IEST, Shibpur–3 days

Deformation and Texture of Materials, COE, TEQIP Jadavpur University–Jadavpur University–One day

Initiatives in Outcome Based Education and NBA Accreditation, Engineering Staff College of India–Hotel Hyatt Regency, Kolkata–Three days

**Prof. S.Mukherjee**

Platinum Jubilee celebration of GCE&CT in 3rd April, 2016.–Kolkata–One day

Survival Strategies & Cost Effective Technologies for the Indian Steel Industry, Steel & Metallurgy, 27th April 2016.–At Hotel Gateway, Kolkata.–One day

International Conference on Advances in Engineering & Technology-ICAET-2016, 4-5 April-2016– Kolkata–Two days

DAY CERTIFICATION COURSE ON ULTRASONIC – NDT, 18th -23rd May, 2016 —IIM-Kolkata Chapter Office–Six days

National conference on Nanotechnology, Materials and Applications, 16-17 June, 2016.–Jadavpur University–Two days

National Seminar Technology Thrust on Materials & Manufacturing Sector in India, 28-29 July, 2016, –CSIR-CG&CRI – Kolkata.–Two days

**Prof. Akshay Kumar Pramanick**

Workshop on Initiatives in Outcome Based Education and NBA Accreditation, 06-08 march, 2017–Kolkata–Three days

Symposium on Fatigue, Fracture and Integrity Assessment, 23-24 march, 2017–Kolkata–Two days

**Prof. Pravash Chandra Chakraborti**

Deformation and Texture of Materials, COE, TEQIP Jadavpur University–Jadavpur University –One day

Symposium on Fatigue, Fracture and Integrity Assessment, 23-24 march, 2017–Jadavpur University–Two days

Workshop on Materials Characterisation Techniques, COE, TEQIP Jadavpur University–Jadavpur University–One day

**3.C. Seminar/Workshop/Conference/Symposium Organised:**

**Dr. Rajib Dey:(Name of the Seminar/Workshop/Conference/Symposium–Place–Duration)**

Role of Innovations in Indian Mineral, Metals, Manufacturing, Processing & Allied Industries, IIM, Kolkata Chapter–Taj Bengal, Kolkata–One day

Curriculum Revision Workshop, TEQIP, Jadavpur University–Jadavpur University–One day

National Symposium on “Heat Treatment of Ferrous and Non Ferrous Castings” : Metallix - 17–Met and Mat. Engg. Dept. JU–One day

Symposium on Fatigue, Fracture and Integrity Assessment, Met. and Mat. Engg. Dept. JU–Jadavpur University–One day

Quality Assurance in Higher Education, UGC-HRDC Jadavpur University–Jadavpur University –One day

**Dr. Sathi Banerjee**

Revision Workshop, TEQIP, Jadavpur University –Jadavpur University–One day

National Symposium on “Heat Treatment of Ferrous and Non Ferrous Castings” : Metallix - 17–Met and Mat. Engg. Dept. JU–One day

Symposium on Fatigue, Fracture and Integrity Assessment, Met. and Mat. Engg. Dept. JU–Jadavpur University–One day

**Dr. Amrita Kundu**

Workshop on Materials Characterisation Techniques, organised by Centre of Excellence, TEQIP II–Jadavpur University–Oct 4-5, 2016 (Two days)

Conference on Deformation and Texture of Materials, organised by Centre of Excellence, TEQIP II–Jadavpur University–16<sup>th</sup> Feb 2017(One day)

**Prof. Akshay Kumar Pramanick:**

National Symposium on “Heat Treatment of Ferrous and Non Ferrous Castings” : Metallix - 17 –Met and Mat. Engg. Dept. JU–One day

**Prof. S.Mukherjee:**

National Seminar on “Problem and Prospects of Non-ferrous Metal Industry”–Jadavpur University –One day

Make in India: Ramifications for the Indian Metallurgical Industry–Met and Mat. Engg. Dept. JU –One day

National conference on Nanotechnology, Materials and Applications–School of Material Science and Nanotechnology–Two days

National Seminar Technology Thrust on Materials & Manufacturing Sector in India-CG&CRI – Kolkata–Two days

National Seminar on Recent status of the utilization of low grade chromium bearing ore–Jadavpur University–One day

**Prof. Pravash Chandra Chakraborti:**

Workshop on Materials Characterisation Techniques, organised by Centre of Excellence, TEQIP II–Jadavpur University–Oct 4-5, 2016 (Two days)

Conference on Deformation and Texture of Materials, organised by Centre of Excellence, TEQIP II–Jadavpur University 16<sup>th</sup> Feb 2017(One day)

**A. Books/Monographs etc. Published:**

**Prof. Subir Paul**

Books Published

1. **Subir Paul, Electrochemical Energy from Battery and Fuel Cell**, 2017, ISBN-13: 978-1520321929, Amazon Book Store, e book & Paper book: <https://www.amazon.com/dp/1520321929>
2. **Subir Paul, Beginner Guide to Develop Programs in C/C++ for Modeling and Simulation to Engineering Problems**, 2017, ISBN-13: 978-1520103884, Amazon Book Store, e book & Paper book: <https://www.amazon.com/dp/1520103883>

**Prof. S. Mukherjee:-**

Poster Presentations (National /International Conference)

1. Synthesis & characterization of Zn doped BFO by solution combustion route and sintering, Soumya Mukherjee, Rupesh Chakraborty and S. Mukherjee, ICAET-2016
2. Phase formation, Morphology and Properties of CFO-NFO composites by Chemical route, Soumya Mukherjee, Anurag Das and S. Mukherjee, ICAET-2016
3. Effect of transition Co doped in mechanical mixture solid state sintering assisted Barium Stannate formation for structural, morphology and its characterization, Ashima Adak Maity, Soumya Mukherjee, M. Ghosh Chaudhuri, S. Mukherjee, ICAET-2016.
4. Dielectric & Ferroelectric properties of Transition Fe doped Barium Stannate by mechanical and solid state sintering, Ashima Adak Maity, Soumya Mukherjee, M. Ghosh Chaudhuri, S. Mukherjee, ICAET-2016.
5. Effect of Nickel doping in Barium Stannate for Structural, optical & Dielectric property analysis, Ashima Adak Maity, Soumya Mukherjee, M. Ghosh Chaudhuri, S. Mukherjee, ICAET-2016.
6. Effect of transitional metal doping on Barium Stannate prepared by Mechanical mix assisted Solid State Sintering, Soumya Mukherjee, Ashima Adak Maity, M. Ghosh Chaudhuri, S. Mukherjee, NCoN, M&A, 2016
7. Sodium Niobate : Perspective on phase transformation through hydrothermal route, S. Chakraborty & S. Mukherjee, NCoN, M&A, 2016.
8. Paper presented in Int. conf on Nanoscience & Nanotechnology for energy applications on 27-29 June, 2016 at Chennai.

**Prof. Dinabandhu Ghosh:-**

Papers Presentations (National /International Conference)

- i. Saikat Kuila, Ritayan Chatterjee and Dinabandhu Ghosh: "Reduction Kinetics and Characterization Study of Synthetic Magnetite Micro Fines" Published in the Proceedings of Pan American Materials

Congress: Minerals Extraction and Processing, TMS2017, 146<sup>th</sup> Annual Meeting & Exhibition, February 26 – March 2, 2017, San Diego, USA, pp. 615-631.

- ii. Ranjini Sarkar and Dinabandhu Ghosh: “Construction of the Stability Diagram of the System Fe-C-O with the Help of a C/Fe<sub>2</sub>O<sub>3</sub> vs T Plot and the Related Issue of Direct and Indirect Reduction”: Proceedings of ‘The 4<sup>th</sup> International Conference on Advances in Materials and Materials Processing (ICAMMP-iv)’ held in the Department of Metallurgical and Materials Engineering, Indian Institute of Technology Kharagpur during 5-7 November, 2016.

#### **4. B. Articles Published in Journals: (Title–Journal’s Name–Author)**

##### **Dr. Rajib Dey:-**

- 1 Novelty on reduction of raw and pre-oxidised titaniferous magnetite ore with boiler grade coal –Journal of Ironmaking & Steelmaking, DOI: 10.1080/03019233.2017.1286545-1-10, 2017 –B. K. Sarkar, S. Samanta, R. Dey & G. C. Das
- 2 Kinetic studies on the reduction of iron ore nuggets by devolatilization of lean grade coal –International Journal of Minerals, Metallurgy and Materials [DOI: 10.1007/s12613-016-1359], 2016 –Chanchal Biswas Prithviraj Gupta, Arnab De, Mahua Ghosh Chaudhuri, Rajib Dey
- 3 Reduction Behavior of Agglomerated Iron Ore Nuggets by Devolatilisation of High Ash High Volatile Lignite Coal for Pig Iron Production –Journal of Ironmaking and Steelmaking: Processes, Products and Applications, DOI:10.1080/03019233.2016.1232910-1-11, 2016 Chanchal Biswas, Mahua Ghosh Chaudhuri, Rajib Dey
- 4 Study on Reduction Kinetics of Briquettes of Hematite Fines with Boiler Grade Coal and Coke Dust in Two Different Forms: Intermixing & Multilayered Journal of The Institution of Engineers (India): Series D, DOI:10.1007/s40033-016-0130-z-Gopal Ghosh Roy, Bitan Kumar Sarkar, Mahua Ghosh–Chaudhuri, Rajib Dey, Manoj Kumar Mitra

##### **Dr. Sathi Banerjee**

- 1 An adaptive neuro-fuzzy inference system-based modelling to predict mechanical properties of hot rolled TRIP steel –Ironmaking & Steelmaking Processes, Products and Applications ISSN: 0301-9233 (Print) 1743-2812 (Online) Journal homepage: <http://www.tandfonline.com/loi/yirs20> –S. Hore, S. K. Das, S. Banerjee & S. Mukherjee

##### **Prof. D. Ghosh**

“Spark Plasma Sintering and Structural Properties Of ZrB<sub>2</sub> Based Ceramics: A Review”; –Reviews on Advanced Materials Science, 2016, vol. 44, pp. 182-193. –S. Chakraborty, P. K. Das and D. Ghosh

“Smelting Characteristics of Fluxed Chromite Sinter and its Performance Assessment in Electric Arc Furnace to Produce High Carbon ferrochrome”; –Ironmaking and Steelmaking, 2016, vol. 43, no.2, pp. 97-111. –S. Agarwal, J. Pal and D. Ghosh

“Study of the variables in the synthesis of carbon nanotubes by the spray pyrolysis of benzene-ferrocene mixtures”; Trans.–Indian Inst. of Metals, 2016, vol. 69, no. 3, pp. 741-749. –Shamikh Chaudhuri, Ritayan Chatterjee, Dinabandhu Ghosh

##### **Prof. S. Paul**

Inhibition of Acid Corrosion of Mild Steel by A Homeopathic Medicine –Innovations in Corrosion and Materials Science, Bentham Publication, 2016, 6, 10-16 –Subir Paul and Ishita Koley

Corrosion Inhibition of Carbon Steel in Sulphuric Acid By Papaya Seed as Green Inhibitor  
–Journal of Bio- and Tribo- Corrosion, Springer, Bio TriboCorros (2016) 2:6 DOI 10.1007/s40735-016-0035-2–Subir Paul and IshitaKoley

Materials and Electrochemistry: Present and Future Battery –J. Electrochem. Sci. Technol. 7(2), (2016) 1-17–Subir Paul

**Prof. P. C.Chakraborti**

Digital image correlation for grain scale strain measurement in interstitial free high strength steel–*Materials Science and Technology*, Volume 32, Issue 4, March 2016, pages 328-337–S.Banerjee, T. Dasgupta, S. Mukherjee, M.Shome, P.C.Chakraborti and S.K.Saha

Local deformation heterogeneity in cyclically deformed interstitial free steel:– *Fatigue and Fracture of Engineering Materials and Structures*, 39(1), 2016, Pages 110-119.–S.Sinha, P.S.De, S. Mukherjee, A.Kundu, P.C.Chakraborti, B.Bhattacharya, M.Shome and D.Bhattacharjee

**Dr. A. Kundu**

Influence of plastic deformation heterogeneity on development of geometrically necessary dislocation density in dual phase steel–**Materials Science and Engineering A**, 2016, Volume 667, Pages 435-443.–A.Kundu and D.P. Field

Local deformation heterogeneity in cyclically deformed interstitial free steel–**Fatigue and Fracture of Engineering Materials and Structures**, 2016, Volume 39(1), Pages 110-119.–S. Sinha, P. S. De, S. Mukherjee, A. Kundu, P.C. Chakrabort, B. Bhattacharya, M.Shome and D.Bhattacharjee

Quantification of Geometrically Necessary Dislocation Density in Dual Phase Steel Using EBSD: –*Proceedings of 4th International Conference on Thermo-Mechanical simulation and Processing of Steels (SIMPRO 2016)*, Ranchi, India–A. Kundu and D.P. Field

**Prof. Akshay Kumar Pramanick:**

- 1 Development of Iron-Crystalline Silica-ceramic Matrix composites through powder Metallurgy Technique–*International Organization of Scientific Research* Vol. 14, Issue 2, Ver. 6, Mar.-April 2017–A.K.Pramanick, SouravDebnath
- 2 “ Envelopment of Coated Electrode and Welding Procedure for Austempered Ductile Iron (ADI) –published in *NWS* 2016, Kolkata, 15-17<sup>th</sup> Dec.–A.K.Pramanick, T.Sarkar, S.Banerjee, T.k.pal

**Prof. Subir Paul:**

1. Inhibition of Acid Corrosion of Mild Steel by A Homeopathic Medicine–*Innovations in Corrosion and Materials Science*, Bentham Publication, 2016, 6, 10-16–Subir Paul and IshitaKoley
2. Corrosion Inhibition of Carbon Steel in Sulphuric Acid By Papaya Seed as Green Inhibitor–*Journal of Bio- and Tribo- Corrosion*, Springer, Bio TriboCorros (2016) 2:6DOI 10.1007/s40735-016-0035-2–Subir Paul and IshitaKoley
3. Materials and Electrochemistry: Present and Future Battery –J. Electrochem. Sci. Technol. 7(2), (2016) 1-17–Subir Paul
4. Modeling unpredictable failures of 304 construction material in seawater by pitting corrosion and simulate chloride ion distribution by finite element method–*Multidiscipline Modeling in Materials and Structures* Vol. 12 No. 3, 2016 pp. 1-19 Emerald Group Publishing Limited–Subir Paul



5. Electrochemical Characterization of Few Electro Synthesized Fuel Cell Electrodes to Producing Clean Electrical Energy from Alternative Fuel Resources'–**International Journal Of Renewable Energy Research**, Volume 6, Issue 2, 2016, pp 723-734–Sujit Kumar Guchhait, Subir Paul
6. Development of Inexpensive High Energetic Electrodes Ni-Cu and Ni-CeO<sub>2</sub>-Cu for Renewable Energy through Direct Ethanol Fuel Cell–**J. Electrochem. Sci. Technol.**, 7(3), 2016, 190-198 –Sujit Kumar Guchhait, Subir Paul
7. Development of Ni-Cu and Ni-Cu-CeO<sub>2</sub> as high energetic material to electro-oxidation of glucose to produce clean renewable energy–IEEE International Conference on Energy Efficient Technologies for Sustainability (ICEETS'16), **IEEE Xplore**, DOI:10.1109/ICEETS.2016.7582896, 2016, page-38-45–Sujit Kumar Guchhait, Subir Paul
8. Electrochemical Development of Ni-Cu electrode by Direct and Pulse current coating for Electro-oxidation of Ethanol for DEFC–Portugaliae Electrochimica Acta, 2017, accepted for pub–Sujit Kumar Guchhait, Subir Paul
9. Electrochemical Oxidation of Biofuels Derived from Mango Wood Floor on Electrolytically Developed MnO<sub>2</sub> Electrode To Produce Renewable Electrical Energy in Fuel Cell–Current Alternative Energy, Bentham Science Publishers, vol 2, 2017–Subir Paul, Upendra Kumar
10. Understanding the Material Science of Battery We Use Everyday,–Research and Review in Electrochem. 2017; 8(1):105.–Subir Paul
11. Computation Modeling Using Experimentally Generated Data in Simulated Seawater to Study and Predict Corrosion Rate of Carbon Steel in Seawater–Innovations in Corrosion and Materials Science, Bentham Publication, 2017, accepted for pub–Subir Paul, Rajdeep Mondal

**Prof. S. Mukherjee**

1. Microstructural and morphological evolution of fly ash based geo-polymerism–Journal of Constructional & Building Materials, Vol-111, 2016, 758-765.–S. Kumar, S.K. Nath, S. Mukherjee, S. Maitra
2. Synthesis, Characterization and property evaluation of single phase MgNb<sub>2</sub>O<sub>6</sub> by chemical route–J. of Australian Ceramic society, 52[2], 2016.–Kakali Sarkar, Siddhartha Mukherjee
3. Kinetics study of geopolymerization of fly ash using isothermal conduction calorimetry–Journal of Thermal Analysis and Calorimetry (JTAC), Accepted on 4th September, 2016.–Susanta Kumar Nath, M. Tech.; Siddhartha Mukherjee, Ph.D.; Saikat Maitra, Ph.D.; Sanjay Kumar, Ph.D
4. Optimization of synthesis conditions of monoclinic Potassium Niobate (KNbO<sub>3</sub>) and its effect on morphology–International Journal of Applied Ceramic Technology, 13 [4] 743-752, 2016. DOI:10.1111/ijac.12532, 1-10.–Subhabrata Chakraborty, Sudhir Ghosh, Gopes Chandra Das, Siddhartha Mukherjee,
5. Micro Structural, Optical and Magnetic Properties of Co-SiO<sub>2</sub> Nanocomposite Synthesized by Sol-Gel Technique–Accepted for publication in Journal of Inst. Of Engineers, Series D, 2016–Mrinal Saha Soumya Mukherjee Arup Gayen Siddhartha Mukherjee
6. Microstructure, optical and magnetic properties of inverse spinel CoFe<sub>2</sub>O<sub>4</sub> synthesized by microemulsion process assisted by CTAB and AOT–J. Of Australian Ceramic society, 52[2], 2016.–Mrinal Saha, Siddhartha Mukherjee and Arup Gayen
7. Albumin matrix assisted wet chemical synthesis of nanocrystalline MFe<sub>2</sub>O<sub>4</sub> (M = Cu, Co and Zn) ferrites for visible light driven degradation of methylene blue by hydrogen peroxide–RSC Adv.,

- 6,2016(DOI:10:1039/x0xx0000x) 58125-58136.)–MrinalSaha\*a , Siddhartha Mukherjee , Sanjay Kumar , SubhrajyotiDey , Arup Gayen
8. Effect of CNT Additions on a Magnesia-based Refractory in Relation to Morphology and Oxidation Behaviour–\* Accepted in Interceram, Refractory Mannual, 2016, p-054-059–Soumya Mukherjee, S. Chakraborty1, Siddhartha Mukherjee
  9. An adaptive neuro-fuzzy inference system based modelling to predict mechanical properties of hot rolled TRIP steel Ironmaking and Steelmaking: Processes, Products and Applications–Publication on 20<sup>th</sup> September, 2016, DOI: 10.1080/03019233. 2016.1227025 –S.Hore, S.Das, S.Banerjee,S.Mukherjee
  10. Synthesis, Characterization and Property Evaluation of Single Phase Mg<sub>4</sub>Nb<sub>2</sub>O<sub>9</sub> by two stage process, Trans. Ind. Cer.Society–Accepted on 12.09.16. TCER-2016-0050.R1 , Trans. Ind. Ceram. Soc., vol. 76, no. 1, pp. 43-49 (2017).–Kakali Sarkar,S.Mukherjee
  11. Phase Evolution, Microscopic Analysis, Optical and Dielectric Property Evaluation of Co-doped BaSnO<sub>3</sub> by Mechanical Mix Assisted Solid State Sintering Method –AIMS Material Science, 3(3).1281-1293,2016.–Soumya Mukherjee, AshimaAdak,M.GhoshCoudhuri,S.Mukherjee
  12. Modifications of nano-titania surface for in vitro evaluations of hemolysis, cytotoxicity, and nonspecific protein binding–J Nanopart Res (2017) 19:142 DOI 10.1007/s11051-017-3835-5, 14 page–AparnaDatta&SayantanDasgupta& Siddhartha Mukherjee,

**Prof. Dinabandhu Ghosh**

1. “A New Way of Constructing the Stability Diagram of the System Fe– C–O with the Help of a C/ Fe<sub>2</sub>O<sub>3</sub> vs. T Plot and the Related Issue of Direct and Indirect Reduction”;–Published online on 20/12/2016 in Ironmaking and Steelmaking–R. Sarkar and D. Ghosh
2. “Kinetics of HydrogenReduction of Magnetite Ore Fines”– International Journal of Hydrogen Energy, 2016, vol. 41, pp. 9256-9266. –Saikat Kumar Kuila, RitayanChatterjee, DinabandhuGhosh
3. “A Model for Dissolution of Lime in Steelmaking Slags–Metall. Mater. Trans. B, 2016, vol. 47B, pp. 2651-2665.–Rahul Sarkar, Ushasi Roy and DinabandhuGhoshDe
4. Study on Reduction Kinetics of Briquettes of Hematite Fines with Boiler Grade Coal and Coke Dust in Two Different Forms: Intermixing & Multilayered–Journal of The Institution of Engineers (India): Series D, DOI:10.1007/s40033-016-0130-z- –GopalGhosh Roy, Bitan Kumar Sarkar, MahuaGhoshChaudhuri, RajibDey, Manoj Kumar Mitra

**5. Collaborative Programmes:**

Research programmes with TATA Steel Ltd, Jamshedpur, RDCIS, Ranchi, RINL, Vishakhapatnam, National metallurgical laboratory, Jamshedpur, Bhabha Atomic Research Centre, Mumbai, Titagarh Wagons ltd., Salem Steel Plant.

**Dr. Rajib Dey: (Topic–Funding Agency/Company)**

1. Physico-chemical Processing of Low Grade Chromite Ore for Beneficiation and Agglomeration of Fines for Recovery of Metal Values: Ongoing (2014-till date)–Ministry of Mines
2. Analysis of the Harmful Effects of Alkaline Elements on the RawMaterials Performance and the Efficiency of Different Ironmaking Processes: Ongoing (2015-till date)–DST

**6. Major Achievements:**

**Dr. A.Kundu:**

\* Early Career Research Award, Department of Science and Technology (DST), 2016

**Prof. Pravash Chandra Chakraborti:-**

Invited for participation in the National Mission Programme on Advanced Ultra Supercritical Power Plant project under the aegis BHEL-NTPC- IGCAR consortium.

**Any Other Matters:**

**Prof. Dinabandhu Ghosh**

1. Invited to Biju Patnaik University of Technology, Rourkela as expert for selection of candidates for the post of Assistant Professor in Metallurgical and Materials Engineering on 27 September, 2016.
2. Invited to Tripura University as expert for selection of candidates for the post of Assistant Professor in Material Science and Engineering on 22 April, 2016.

**PHARMACEUTICAL TECHNOLOGY**

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**1. A. Courses Offered:**

<b>Name of the Course</b>	<b>Duration of the Course</b>	<b>Current intake</b>
B.Pharm	4 years	60
M. Pharm	2 years	25
M.Pharm. (Clinical Pharmacy)	2 years	08
PhD	–	–

**1. B. Number of Faculty Members: 15**

**2. A. Area of Research Activities : (Broad Areas)**

The Department of Pharmaceutical Technology, Jadavpur University is a very renowned university department with excellent teaching quality and research facilities with good research laboratories equipped with modern and sophisticated analytical instruments as well as manufacturing facilities. A good number of research grants are available at present under various Government funding programs supported by UGC, DST, AICTE, CSIR, ICMR, DBT in terms of cores of rupees. Unique research work as reflected in research publications in high impact factor journals, conferring research awards by various reputed organizations to its faculties, almost 100% selection of the students in reputed pharmaceutical and allied companies through campus interview have established

the department in the category of the top Pharmaceutical university departments globally. Some predominant research areas include formulations development- Nanoparticles, Nanoliposomes, Transdermal formulation, Dental formulation, hydrogel, microparticles, various tablets etc., Hepatocarcinogenesis & chemoprevention, Antisense Technology, Chemoprevention by gene manipulation, probiotics, natural products, QSAR and Molecular Modeling with application in Drug Design and Predictive Toxicology, extraction, isolation, characterization of therapeutically active phyto constituents, Pharmacognosy, Phytotherapy, Phytochemistry, Toxicology, Isolation, Plant Tissue Culture and many more.

**List of Publication (2016-2017) :**

1. Tapan Kumar Shaw, Dipika Mandal, Goutam Dey, Murari Mohan Pal, Paramita Paul, Samrat Chakraborty, Asraf Kazi Ali, **Biswajit Mukherjee**, Amal Kumar Bandyopadhyay, and Mahitosh Mandal. Successful delivery of docetaxel to rat brain using experimentally developed nanoliposome: a treatment strategy for brain tumor. *Drug Delivery*. 2017, 24(1):346-357. ( **Impact Factor: 6.402** )
2. Bhabani Sankar Satapathy, **Biswajit Mukherjee**, Rinku Baishya, Mita Chatterjee Debnath, Niladri Shekhar Dey and Ruma Maji. Lipid nanocarrier-based transport of docetaxel across the blood brain barrier. *RSC Adv.*, 2016, 6, 85261-85274. ( **Impact Factor: 3.108** )
3. Saikat Ghosh, Laboni Mondal, Samrat Chakraborty and **Biswajit Mukherjee**. Early Stage HIV Management and Reduction of Stavudine-Induced Hepatotoxicity in Rats by Experimentally Developed Biodegradable Nanoparticles. *AAPS PharmSciTech*. 18 (3), 697-709. ( **Impact Factor: 2.451** ).
4. Roy D, Das K, Mondal S, Bhowmick D, Dey S, Majumder GC, **Mukherjee B**, Bhattacharyya D. Epididymal protein ASF is a D-galactose-specific lectin with apoptotic effect on human breast cancer cell line MCF7. *Int J Biol Macromol*. 2016;84:208-20. ( **Impact Factor: 3.671** ).
5. Dey NS, **Mukherjee B**, Maji R, Satapathy BS. Development of Linker-conjugated Nanosize Lipid Vesicles: A Strategy for Cell Selective Treatment in Breast Cancer. *Curr Cancer Drug Targets*. 2016: 16(4):357-72. ( **Impact Factor: 3.412** ).
6. Kar S, Sepúlveda MS, **Roy K**, Leszczynski J, Endocrine-disrupting activity of per- and polyfluoroalkyl substances: Exploring combined approaches of ligand and structure based modeling. *Chemosphere*, **184**, 2017, 514-523, <http://dx.doi.org/10.1016/j.chemosphere.2017.06.024> (Impact factor- 4.208)
7. Das S, Ojha PK, **Roy K**, Development of a temperature dependent 2D-QSPR model for viscosity of diverse functional ionic liquids. *J Mol Liq*, **240**, 2017, 454-467, <http://dx.doi.org/10.1016/j.molliq.2017.05.113> (Impact factor- 2.740)
8. Aher RB, **Roy K**, Exploring the structural requirements in multiple chemical scaffolds for the selective inhibition of *Plasmodium falciparum* calcium-dependent protein kinase-1 (PfCDPK-1) by 3D-pharmacophore modelling, and docking studies. *SAR QSAR Environ Res*, **28**, 2017, 390-414, <https://doi.org/10.1080/1062936X.2017.1326401> (Impact factor- 1.897)
9. Ojha PK, **Roy K**, Development of a robust and validated 2D-QSPR model for sweetness potency of diverse functional organic molecules. *Food and Chemical Toxicology*, 2017, <http://www.sciencedirect.com/science/article/pii/S0278691517301394>(Impact factor- 3.584)

10. González-Durruthy , Castro M, Nunes SM, Ventura-Lima J, Alberici LC, Naal Z, Atique-Sawazaki DT, Curti C, Ruas CP, Gelesky MA, **Roy K**, González-Díaz H Monserrat JM, **QSPR/QSAR-Based Perturbation Theory Approach and Mechanistic Electrochemical Assays on Carbon Nanotubes with Optimal Properties Against Mitochondrial Fenton Reaction Experimentally Induced by Fe<sup>2+</sup>-overload. Carbon, 115, 2017, 312-330**, <http://dx.doi.org/10.1016/j.carbon.2017.01.002> (Impact factor- 6.198)
11. **Roy K**, Ambure P, Aher R, How important is to detect systematic error in predictions and understand statistical applicability domain of QSAR models? Chemom Intell Lab Sys, 162, 2017, 44-54, <https://authors.elsevier.com/a/1UOpFcc6LvBdv> (Impact factor- 2.217)
12. Das RN, Sintra T, Coutinho J, Ventura S, Roy K, Popelier, P, Development of predictive QSAR models for Vibrio fischeri toxicity of ionic liquids and their true external and experimental validation tests. Toxicol Res, 5, 2016, 1388-1399, <http://dx.doi.org/10.1039/C6TX00180G> (Impact factor- 2.161)
13. Aher RB, **Roy K**, Exploring structural requirements for the inhibition of Plasmodium falciparum calcium-dependent protein kinase-4 (PfCDPK-4) using multiple in silico approaches. RSC Advances, 6, 2016, 51957–51982, <http://dx.doi.org/10.1039/C6RA05692J> (Impact factor- 3.840)
14. Ambure P, **Roy K**, Understanding Structural Requirements of Cyclic Sulfone Hydroxyethylamines as hBACE1 Inhibitors against Aβ Plaques in Alzheimer’s Disease: A Predictive QSAR Approach. **RSC Advances**, 6, 2016, 28171-28186, <http://dx.doi.org/10.1039/C6RA04104C> (Impact factor- 3.840)
15. Mitra D, Jena AK, De A, Das M, Das B, **Samanta A**. Prebiotic potential of gum odina and its impact on gut ecology: in vitro and in vivo assessments. Food Function (RSC Advances) 2016 13(7)3064-72
16. Sonia Kundu, Md. Farooque Abdullah, Aatrayee Das, Aalok Basu, Asim Halder, Mousumi Das, **Amalesh Samanta** and Arup Mukherjee. Antifungal ouzo nanoparticles from guar gum Propionate. RSC Advances. 2016(6)106563-106571
17. Abhishek Basu, Arin Bhattacharjee, Subhadip Hazra, **Amalesh Samanta & Sudin Bhattacharya**, Ameliorative effect of an oxovanadium (IV) complex against oxidative stress and nephrotoxicity induced by cisplatin. Redox Reports. 2016.
18. Abhishek Basu, Arin Bhattacharjee, **Amalesh Samanta & Sudin Bhattacharya**, An oxovanadium(IV) complex protects murine bone marrow cells against cisplatin-induced myelotoxicity and DNA damage. Drug and Chemical Toxicology. <http://dx.doi.org/10.1080/01480545.2016.1237522>
19. B. Das, A. De, M. Das, S. Das, **A. Samanta**. A new exploration of Dregea volubilis flowers: Focusing on antioxidant and antidiabetic properties. South African Journal of Botany 109 (2017) 16–24
20. Nirmalya Bandyopadhyay, Mousumi Das, Amalesh Samanta, Miaoli Zhu, Liping Lu, and Jnan Prakash Naskar, Promising Antimicrobial Activity of an Oxime Based Palladium(II) Chemistry Select 2017,(2)230 – 240
21. Sahdev AK, Raj V, Singh AK, Rai A, Keshari AK, De A, Samanta A, Kumar U, Rawat A, Kumar D, Nath S, Prakash A, Saha S. Ameliorative effects of pyrazinoic acid against oxidative



- and metabolic stress manifested in rats with dimethylhydrazine induced colonic carcinoma. *Cancer Biology Therapy* 2017;18(5):304-313.
22. Debmalya Mitra, Abhishek Basu, Bhaskar Das, Aditya Kr. Jena, Arnab De, Mousumi Das, Sudin Bhattacharya and Amallesh Samanta. *Gum odina: an emerging gut modulating approach in colorectal cancer prevention. RSC Adv.*, 2017(7):29129-29142
  23. Das, S.K., **Khanam, J.**, Nanda A., Bera, K., Optimization of the preparation method for ketoprofen-loaded microspheres consisting polymeric blends using simplex lattice matrix Design. *Material Science and Engineering*, 2016 (69):598-608.
  24. Ahmed, S.K., **Mukherjee, P.K.**, Bahadur, S., Harwansh, R.K., Kar, A., Dhabi, Abdullah, N. Duraipandya, V., CYP450 mediated inhibition potential: An herb from Indian Traditional Medicine. *Journal of Ethnopharmacology*, 2016,78 (34-39).
  25. Harwansh, R.K., **Mukherjee, P.K.**, Bahadur, S., Kar, A., Dhabi, Abdullah, N., Enhancement of photoprotection potential of catechin loaded nanoemulsion gel against UV induced oxidative stress. *Journal of Phytochemistry and Photobiology, B: Biology* , 2016 (160) 318-329.
  26. Bera, R., Karmakar, S., Das, C., Saha, A., Kundu, A., Sarkar, R., **Karmakar, S.**, Adhikari, D., Sen., T. Human Cytochrome P450 modulation by *Gymnema sylvestre*- A predictive safety evaluation by LC-MS/MS. *Pharmacognosy Magazine* 2016 (12):1-6.
  27. Sarkar, R., Kumar, A., Divya, L., Samanta, S.K., **Karmakar, S.**, Adhikari, D., Sen., T. Antioxidant properties of *Kalanchoe blossfeldiana* –A focus on Erythrocyte Membrane stability and Cyto Protection. *Current Traditional Medicine*, 2016.
  28. Ghosh, R.C., Ghosh, N., **Mandal, S.C.** Formulation Challenges in the Development of Dosage forms of Phytochemicals. *The Pharma Review*, 2017, (86) 91-96.
  29. Rashid, H.A., Mandal, V., **Mandal, S.C.**, Thandavarayan, R.A., *Diospyros melanoxylon* Roxb. In cancer Prevention: Pharmacological Screening, Pharmacokinetics and Clinical Studies. *International Journal of Pharmacognosy*. 2017 4(7), 217-223.
  30. Mahapatra, P.K.S., **Mandal, S.C.**, Hazra, A.K., Sur, T.K. Assessment of modified fenugreek on blood sugar lowering action in rats. *World Journal of Pharmaceutical and Life Sciences*, 2017, 3(3), 188-193
  31. Mondal, M., Bepari, T.C., Rahman, A., **Mandal, S.C.**, Kundu, S.K. Patterns and Trends of Cancer and its treatment in hospitals of Dhaka City in Bangladesh. *Pharma Review*. 2017 (85):96-100
  32. Kundu, A., Mandal, V., **Mandal, S.C.** An overview on neurodegenerative diseases and possible leads from Natural Products., 2017 (82) 66-70.
  33. Ruhidas B., Naskar, D., Banerjee, S., Karan, S., **Chatterjee, T.K.** Evaluation of Gum Katira as a model sustained release adjuvant. *Indian Journal of Pharmaceutical Education and Research* 2016 (50) 146-158.
  34. Ghosh, P., Mondal, S., **Bera T.** Preparation and characterization of andrographolide nanoparticles for visceral leishmaniasis. *International Journal of Pharmacy and Pharmaceutical Sciences.*, 2016 (8):102-107.
  35. Ramasamy, S., Guria, T., Singha, T., Roy, P., Sahu, B.P., Nasakar, J., Das, A., **Maitty, T.K.** Synthesis and anticancer evaluation of 5-benzyl-1,3,4 –thiadiazol-2-amine derivatives on Ehrlich ascites carcinoma bearing mice. *Der Pharma Chemica*. 2016 (4) 185-191



**Book Chapter (2016-2017):**

1. **Biswajit Mukherjee**, Samrat Chakraborty, Laboni Mondal, Bhabani sankar Satapathy, Soma Sengupta, Lopamudra Dutta, Ankan Choudhury. Multifunctional drug nanocarriers facilitate more specific entry of therapeutic payload into tumors and control multiple drug resistance in cancer. In Book: Nanomaterials in Cancer Therapy. (Ed. Grumezescu, AM), Elsevier, pp 203-251. (2016)
2. **Biswajit Mukherjee**, Paramita Paul, Lopamudra Dutta, Samrat Chakraborty, Moumita Dhara, Laboni Mondal, Soma Sengupta. Pulmonary Administration of Biodegradable Drug Nanocarriers for More Efficacious Treatment of Fungal Infections in Lungs: Insights Based on Recent Findings. In book: Multifunctional Systems for Combined Delivery, Biosensing and Diagnostics (Ed. Grumezescu, AM), Elsevier, pp.261-280. December 2017. DOI: 10.1016/B978-0-323-52725-5.00014-9.
3. **Biswajit Mukherjee**, Samrat Chakraborty, Laboni Mondal, Ankan Choudhury, Bhabani Sankar Satapathy, Sanchari Bhattacharya. Antisense oligonucleotide-mediated target specific gene silencing : design, delivery strategies and therapeutic applications. In book: Biotargets and drug delivery approaches. Taylor & Francis Group, 6000 Broken Sound Parkway NW.
4. **Roy K**, Advances in QSAR Modeling. Applications in Pharmaceutical, Chemical, Food, Agricultural and Environmental Sciences. Springer, 2017, <http://www.springer.com/in/book/9783319568492>.

**Other Achievements**

**Prof. K. Roy**, Editorial Advisory Board Member: *Journal of Molecular Graphics and Modeling* (2017 onwards), Elsevier.

**Three Refresher Courses have been conducted by QIP nodal Cell (Pharmacy), Dept. of Pharm. Tech. JU on following topics :**

1. "Drug Targeting: Various Approaches and Advantages" From (30th March, 2017 – 12th April, 2017).
2. "Pharmaceutical Research and Development from Bench to Bedside" (May 03, 2017 to May 16, 2017)
3. "Role OF Biotechnology in Pharmacy" (May 17, 2017 to May 30, 2017)

**Awards and Achievements (2016-17)**

- The Association of Pharmaceutical Teachers of India (APTI) Award - Dr. L. V. G. Nargund of Nargund Foundation, Bengaluru, Prof. C. J. Shishoo award for outstanding contribution in Research in Pharmaceutical Sciences-2016 (September 2016) to Prof. Biswajit Mukherjee.
- Dr. P.C. Dutta Memorial Award given by Botanical Society of Bengal to Prof. S.C. Mandal (2017)

**Department of Pharmaceutical Technology runs few Centres and one Schools:**

- (i) Centre for Advance Research in Pharmaceutical Sciences (funded by Dr. V. Ravichandran Endowment trust)
- (ii) Bioequivalence Study Centre
- (iii) School of Natural Product Studies, besides, one Contract Research organization

**Ongoing Projects (2016-2017)**

1. **DST Purse II Sanctioning Authority: DST**

Targeted drug delivery to prostate cancer cells by using antibody conjugated nanoparticles as drug carrier.

**Rs. 1 crore**

2. **UPE II Sanctioning authority: UGC**

On Drug Delivery and Natural Products

**Rs. 2.2 crores**

3. **UGC SAP CAS I project Rs. 1.76 crores**

**Individual Ongoing Project:**

4. **Prof. K. Roy** "In silico modeling of property/toxicity/activity of nanomaterials using chemometric tools" granted by CSIR (2017)
5. **Prof. Biswajit Mukherjee** "Targeted delivery of Doxorubicin to Breast cancer cells by using Antibody conjugated nanoparticles as Drug carrier" granted by ICMR (2013-2018)
6. **Prof. Biswajit Mukherjee** "Pulmonary delivery of mucoadhesive nanoparticles of an antifungal agent using dry powder inhaler" granted by DST (2015-2018)
7. **Prof. Biswajit Mukherjee**, "Ribavirin nanoliposomes for targeting peripheral nervous system" granted by UGC (2015-2020)
8. **Prof. Biswajit Mukherjee** "Nanocapsulated Betulinic acid and analogue.... Cancer chemotherapy" granted by DBT (2016-2021)
9. **Prof. Biswajit Mukherjee** "Role of carnosine on aging-induced brain regional serotonin and amyloid beta in mammals" granted by DBT (2017-2022)

**Foreign Team Visits and Invited Lectures Delivered:**

1. A visit by a group of undergraduate, post graduate students, research scholars, faculty members from East West University, Dhaka, Bangladesh
2. A visit by a group of undergraduate, post graduate students, research scholars, faculty members from University of Dhaka, Dhaka, Bangladesh
3. A visit by a group of faculty from University of Rhode Island, USA
4. A pharmacy faculty team from Thailand
5. Oration lecture by Prof. Norio Miyoshi, Research Centre for Development in Far-infrared Region, University of Fukui, Japan.
6. Invited lecture given by Dr. Swati Biswas, BIT, Hyderabad
7. Visit and lecture given by Angela L. Slitt, University of Rhode Island, USA
8. Invited lecture delivered by Dr. Sandeep Roy, Novartis, USA
9. Invited lecture delivered by Shantanu Panja, Pfizer, India
10. Invited lecture delivered by Bedadyuti Chakraborty, Head, Biotechnology Division, Dr. Reddy's Laboratory, Hyderabad, India.
11. Invited lecture delivered by Dr. Chinmoy Patra, Research Scientist, Agarkar Research Institute, India.
12. Invited lecture delivered by Dr. Ashok Rakshit, JUOPAA, USA.

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**Prof. L. K. Ghosh**

**1. Articles Published in Journals:**

- i) "Gastroretentive extended release of metformin from methacrylamide-g-gellan and tamarind seed gum composite matrix", Priyadarshini R., Nandi G., Changder A., Chowdhury S., Chakraborty S., Ghosh L. K., *Carbohydrate Polymers*, 137: 100–110 (2016).
- ii) "Formulation and Optimization of Controlled Release 5-Fluoro-Uracil Tablets for Colonic Delivery", Moumita Das, Bijaya Ghosh, Swapnoleena Sen, L.K. Ghosh, *Journal of Young Pharmacist*; 9(2):192-196 (2017).
- iii) "Sustained release gastroretentive tablet of metformin hydrochloride based on poly (acrylic acid)-grafted-gellan"; Debjani Sarkar, Gouranga Nandi, Abhijit Changder, Prasenjit Hudati, Sayani Sarkar, Lakshmi Kanta Ghosh, *International Journal of Biological Macromolecules*; 96 (2017) 137-148.

**2. Seminar/Workshop/Conference/Symposium Attended:**

- i) Chaired the Second Academic Session of International Conference On "Higher Education, Universities and excellence: The Bengal Narrative." Organized by Centre for Studies and Rehabilitation of Differently Abled Persons and WBCUPA, Jadavpur University Main Campus. On 21st December, 2016
- ii) Chaired the Second Academic Session of One Day National Seminar On "Science, Technology and Disability: A National Perspective." Organized by Centre for Studies and Rehabilitation of Differently Abled Persons, Jadavpur University Main Campus. On 31st March, 2017.

**3. External Member:**

- i) Selected as the External member in the Board of Sushruta School of Medical & Paramedical Sciences, under Assam University, Silchar on 3<sup>rd</sup> March, 2017.

**4. New University Affiliation and Old University Accreditation:**

- i) Appointed as an Expert in connection with the inspection of college affiliated to Maulana Abul Kalam Azad University of Technology (MAKAUT), West Bengal.
- ii) Visited Netaji Subhas Chandra Bose Institute of Pharmacy as an academic expert for inspection as appointed by MAKAUT on 18.03.2016.
- iii) Visited Institute of Chemical Technology, Mumbai as a Member of UGC Expert Committee, 30th December, 2016 to 1st January, 2017.
- iv) Visited Nitte University as a Member Of UGC Expert Committee, 18-20 January, 2017
- v) Visited Dayanand Sagar University as a Member of UGC Expert committee, 6-7 February, 2017
- vii) Visited Jamia Hamdard University as a Member of UGC Expert Committee ,10-12 April, 2017.

## POWER ENGINEERING

### (SALT LAKE CAMPUS)

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#### 1. A. Courses Offered :

Name of the Course	Duration of Course	No. of Students Enrolled
Bachelor of Power Engineering:	4 years	47 students in each batch
Master of Power Engineering:	4 semesters	18 students in each batch
PhD(Engg.):		Presently 18 registered research scholars

#### 2. A. Area of Research Activities : (Broad Areas)

Combustion modeling and diagnostics, energy, atomization, computational and experimental fluid dynamics and heat transfer, microfluidics, biological fluid flow, energy studies, heat transfer using nanofluid, experimental aerodynamics, hydro power, wind power, applied superconductivity in electrical machines, power system optimization, power economics, soft computing techniques, application of nanofluids in power engineering, economic power generation, pollution engineering, optimized modeling of deregulated electricity market in economic aspect on the context of Indian electricity market scenario, real-time & embedded systems.

#### 2. B. Major Research Project : (Departmental /Individual along with the names of Co-ordinator(s)/ Investigator(s)-Name of the Project- Funding Agency)

Departmental Research Scheme (DRS) under UGC Special Assistance Programme Co ordinator: Dr. Ranjan Ganguly Dy. Co ordinator: Dr. Apurba K. Santra-Distributed Power Generation-University Grants Commission

PI. : Prof. Amitava Datta C.I. : Dr. Ranjan Ganguly -Modeling of Spray Combustion in Gas Turbine Combustor considering Thermal Radiation and Soot Formation with Experimental Validation at different Spray Condition and Air Flow Distribution-Gas Turbine Research Establishment, Govt. of India, under GATET scheme

C.I.: Prof. Amitava Datta-Modeling and Experimental Validation of Spray Formation by Disintegration of Annular Swirling Liquid Sheets for Design of Advanced Fuel Injectors for Gas Turbine Combustors-Gas Turbine Research Establishment, Govt. of India, under GATET scheme

PI.: Prof. Amitava Gupta-Development of discrete optimal controller for a load following pressurized water reactor (PWR) module-Board of Research in Nuclear Sciences(BRNS) of the DAE, Govt. of India

PI.: Prof. Ranjan Ganguly C.I.: Amitava Datta–Study of condensation in presence of noncondensable gases: effects of surface wettability and flow parameters–Board of Research in Nuclear Sciences (BRNS) of the DAE, Govt. of India

PI: Prof. Ranjan Ganguly–Design of metal mesh for water harvesting from fog-laden air–TEQIP-II (JU)

**3. A. Invited Lectures Delivered/Session Chaired: (Name of the Teacher–Type of Participation–Name of the Seminar/Conference–Place–Duration)**

Niladri Chakraborty– Invited lecture National Workshop on Recent Advances and Developments in Energy Sectors (NWRADES-2016)–Mechanical Engg. Department, Jadavpur University, –3rd September, 2016

Niladri Chakraborty–Panel Expert–National Workshop on Recent Advances and Developments in Energy Sectors (NWRADES-2016)–Mechanical Engg. Department, Jadavpur University, –3rd September, 2016

Niladri Chakraborty–Key note address–Conference on Recent Advances in Smart-Grid and Power-Quality Issues (RASPI -2016)–Department of Electrical Engg., Kolaghat Engg. College–11 July to 15 July, 2016

Niladri Chakraborty–Invited lecture–TEQIP Supported Seminar–Department of Electrical Engg., Kolaghat Engg. College–28th June, 2016

Niladri Chakraborty–Invited lecture–Conference on Recent Advances in Smart-Grid and Power-Quality Issues (RASPI -2016)–Department of Electrical Engg., Kolaghat Engg. College–11 July to 15 July, 2016

Niladri Chakraborty–Invited lecture–Recent Trends in Energy and Power Sector–Elite College of Engineering and Technology

Niladri Chakraborty–Invited speaker–National Seminar on "Competitive Economics of Indian Thermal Power Generation"–Engineers' welfare forum, WBPDC, Swabhumi–25<sup>th</sup> September'2016

Niladri Chakraborty–Panel Expert in panel discussion–National Seminar on "Competitive Economics of Indian Thermal Power Generation"–Engineers' welfare forum, WBPDC, Swabhumi–25<sup>th</sup> September'2016

Niladri Chakraborty–Invited lecture–National Workshop on Shaping the Future of Indian Power Sector through Renewable Energy–Power Engg. Department, Jadavpur University, –8-9 September, 2016

Amitava Datta –Invited lecture & session chaired–International Conference on Sustainable Energy and Environmental Challenges–Centre of Innovative and Applied Bioprocessing, Mohali –26 – 28 February, 2017

Amitava Datta–Invited lecture–Workshop on Advances in Applications of Computational Fluid Dynamics–Mechanical Engg. Dept., NIT Silchar–8th Nov., 2016

Amitava Datta –Invited lecture & session chaired–International Workshop on Thermo-Fluid Sciences: Analysis and Applications–College of Engineering and Management, Kolaghat–1–3 October, 2016

### **Annual Report 2016-17**

Amitava Datta–Invited lecture–National Conference on Advances in Thermal Engineering–Mechanical Engg. Department, Jadavpur University –23-24 September, 2016

Amitava Datta–Invited lecture–National Workshop on Shaping the Future of Indian Power Sector through Renewable Energy–Power Engg. Department, Jadavpur University–8-9 September, 2016

Amitava Datta–Invited lecture–Lecture Session on Power Plant (LSPP-2016)–Mechanical Engg. Department, IEST Shibpur, –7<sup>th</sup> September, 2016

Amitava Datta–Invited lecture–National Workshop on Recent Advances and Developments in Energy Sectors (NWRADES-2016)–Mechanical Engg. Department, Jadavpur University, –3<sup>rd</sup> September, 2016

Amitava Gupta–Invited lecture–3<sup>rd</sup> Indo-German Dialogue on Excellence in Research and Education–IISER Pune–2016

Amitava Gupta–Invited lecture–Science Lecture Series–Consulate General of the Federal Republic of Germany, Kolkata–2016

Ranjan Ganguly–Invited lecture–Workshop on Advances in Applications of Computational Fluid Dynamics–Mechanical Engg. Dept., NIT Silchar–8<sup>th</sup> Nov., 2016

Ranjan Ganguly–Invited lecture–Short Term Course on Recent Advances in Thermal-Fluid Science and Engineering (RATFSE 2016)–Mechanical Engg. Dept., NIT Durgapur–26<sup>th</sup> September 2016

Ranjan Ganguly–Invited lecture–Short Term Course on Advances in Micro-system Technology–Mechanical Engg. Dept., NIT Durgapur–February 22, 2017

Ranjan Ganguly–Invited lecture–Workshop on Biomechanics, Implants and Related Medical Devices –School of Biomedical Engineering, IEST Shibpur–March 14, 2017

Bireswar Majumdar–Invited lecture–National Workshop on Shaping the Future of Indian Power Sector through Renewable Energy–Power Engg. Department, Jadavpur University, –8-9 September, 2016

### **3. B. Seminar/Workshop Conference/Symposium Attended: (Name of the Teacher–Name of the Paper Presented–Name of the Seminar–Place–Duration)**

Niladri Chakraborty–IEEE 1<sup>st</sup> International Conference on Power Electronics, Intelligent Control and Energy Systems (ICPEICES)–Delhi Technological University, New Delhi–4-6 July, 2016

A. K. Santra–Energy Management and Energy Efficiency–IIT Guwahati–23-27 May, 2016

Mr. Bhimsen Tudu–Workshop on “Computer vision: Concepts Trends & Application” Organized by Dept. of Printing Engg. Jadavpur University–Hotel DE Sonnet, Kolkata–31<sup>st</sup> March

Mr. Bhimsen Tudu–Seminar on “Advances in Welding Processes” Organized by Dept. of Power Engg. Jadavpur University–Dept. of Power Engg. Jadavpur University Kolkata, India–28<sup>th</sup> March

Mr. Bhimsen Tudu–“Frontiers in Energy Storage”, Organized by Dept. of Power Engg. Jadavpur University–Dept. of Power Engg., Jadavpur University–9<sup>th</sup> March, 2017

Mr. Bhimsen Tudu–Initiatives in Outcome Based Education and NBA Accreditation” under the Faculty & Staff Development Program of TEQIP-II, Jadavpur University–Hyatt Regency, Kolkata–March 6 – 8, 2017



Mr. Bhimsen Tudu–“Teaching Resources and Interactive Laboratory Simulation (TRAILS)” Organized by Centre for Digital Library & Documentation and School of Education Technology, Jadavpur University–Dr. H. L. Roy Auditorium, Jadavpur University–17<sup>th</sup> Aug, 2016

Mr. Bhimsen Tudu–Loss and Cost Minimization with Enhancement of Voltage Profile of Distribution Systems Using a Modified Differential Evolution Technique–International Conference on Soft Computing: Theories and Applications Organized by Amity University Rajasthan, Jaipur, India –Amity University Rajasthan, Jaipur, India–Dec -28-30, 2016

Sri Debashis Palit–Advanced Welding Process–Dept. of Power Engg., Jadavpur University–28<sup>th</sup> March, 2017

Smt. Gargi Konar–2 day 38<sup>th</sup> Training programme on “Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013” organized by Institute of Public Administration, Bangaluru–Hotel Vivanta, Dwaraka, New Delhi-110 075–May 26 & 27, 2016

Smt. Gargi Konar–“Initiatives in Outcome Based Education and NBA Accreditation” under the Faculty & Staff Development Program of TEQIP-II, Jadavpur University–Hyatt Regency, Kolkata–March 6 – 8, 2017

**3. C. Seminar/Workshop Conference/Symposium Organized: (Name of the Teacher–Name of the Seminar/Conf/Workshop–Place–Duration)**

Ms. Gargi Konar & Mr. Bhimsen Tudu–Shaping the Future of Power Sector through Renewable Energy and Role of Academia–Dept. of Power Engg., Jadavpur University–8-9 September, 2016

Prof. Ranjan Ganguly & Prof. Apurba K. Santra–Emerging Technology in Thermal Power–Dept. of Power Engg., Jadavpur University–4<sup>th</sup> October, 2016

Mr. Bhimsen Tudu–Workshop/training program on “PV-Wind-Battery based Hybrid distributed generation system”–Dept. of Power Engg., Jadavpur University–23<sup>rd</sup> February 2017

Prof. Amitava Datta & Prof. Ranjan Ganguly–Redefining Power Engineering Curriculum for the Emerging Demands of Industry and Academia–Dept. of Power Engg., Jadavpur University–15<sup>th</sup> March, 2017

Dr. Subrata Mondal & Sri Debashis Palit–Seminar - Frontiers in Energy Storage –Power Engg. Deptt., Jadavpur University –9<sup>th</sup> March, 2017

Dr. Subrata Mondal–Seminar - Advanced Welding Processes–Power Engg. Deptt., Jadavpur University –28<sup>th</sup> March, 2017

Prof. Ranjan Ganguly & Prof. Apurba K. Santra–Indo-UK workshop on Microfluidics for Affordable Healthcare–Power Engg. Deptt., Jadavpur University –January 20, 2017

Prof. Ranjana Chowdhury (Chemical) and Prof. Ranjan Ganguly–Revisiting Intellectual Property Rights in the Context of Recent Developments in Science & Technology–H.L. Roy Auditorium, JU Main Campus–October 20, 2016

**4. A. Books/Monographs etc. Published: (Name of the Teacher–Name of the Book–Name of the Publisher)**

A. Gupta, A.K. Chandra, P. Luksch–Real-time and distributed real-time systems : theory and applications–CRC Press, ISBN 978-1-4665-9847-8

A.Samanta, R.Ganguly, A.Datta, N.Modak–On-Chip Microfluidic Separation of Biological Entities in Field Flow Fractionation and Split Flow Thin Fractionation Devices, in *Fluid Mechanics and Fluid Power – Contemporary Research, Lecture Notes in Mechanical Engineering*, (eds.A.K. Saha et al.)–Springer

Atmadeep Bhattacharya and Amitava Datta –Syngas as SI Engine Fuel: Combustion Perspective, in *Combustion For Power Generation and Transportation*, (eds. A.K.Agarwal et al.)–Springer

**4. B. Articles Published in Journals: (Name of the Teacher, Name of ( Including National / International The Articles, Name of Journal, & Peer-reviewed Journals) Date of Publication, Volume)**

1. M. Basu, Quasi-oppositional differential evolution for optimal reactive power dispatch, *International Journal of Electrical Power & Energy Systems*, **78**, 29-40, 2016.
2. M. Basu, Group search optimization for combined heat and power economic dispatch, *International Journal of Electrical Power & Energy Systems*, **78**, 138–147, 2016.
3. M. Basu, Quasi-oppositional group search optimization for multi-area dynamic economic dispatch, *International Journal of Electrical Power & Energy Systems*, **78**, 356-367, 2016.
4. M. Basu, Kinetic gas molecule optimization for nonconvex economic dispatch problem, *International Journal of Electrical Power & Energy Systems*, **80**, 325-332, 2016.
5. M. Basu, Quasi-oppositional group search optimization for hydrothermal power system, *International Journal of Electrical Power & Energy Systems*, **81**, 324-335, 2016.
6. M. Basu, Group Search Optimization for Solution of Different Optimal Power Flow Problems, *Electric Power Components and Systems*, **44**(6), 606-615, 2016.
7. M. Basu, Multi-objective optimal reactive power dispatch using multi-objective differential evolution, *International Journal of Electrical Power & Energy Systems*, **82**, 213-224, 2016.
8. A. Samanta, R. Ganguly, A.Datta, N.Modak, Separation of magnetic beads in a hybrid continuous flow microfluidic device, *Journal of Magnetism and Magnetic Materials*, **427**, 300-305, 2017.
9. M. Mondal, A. Datta, Energy Transfer in Hydrogen Separation from Syngas using Pressure Swing Adsorption (PSA) Process: A Thermodynamic Model, *International Journal of Energy Research*, **41**(3), 448-458, 2017.
10. A. Bhattacharya, A. Datta, M. Wensing, Laminar Burning Velocity and Ignition Delay Time for Premixed Isooctane-air Flames with Syngas Addition, *Combustion Theory and Modeling*, **21**(2), 228-247, 2017.
11. M. Das, A. Chakraborty, A. Datta, A.K.Santra, Experimental Studies on Burning Characteristics of Methanol, Diesel and Sunflower Biodiesel Fuels, *Combustion Science and Technology*, **189**(2), 213-230, 2017.
12. A. Samanta, N. Modak, A. Datta, R. Ganguly, Operating Regimes of a Magnetic Split-flow Thin (SPLITT) Fractionation Microfluidic Device for Immunomagnetic Separation, *Microfluidics Nanofluidics*, **20**(6), 87, 2016.

13. P. Ghose, A. Datta, A. Mukhopadhyay, Prediction of Soot and Thermal Radiation in a model Gas Turbine Combustor burning Kerosene Fuel Spray at Different Swirl Levels, *Combustion Theory and Modeling*, **20**(3), 457-485, 2016.
14. J.M. Morrissette, P.S. Mahapatra, A. Ghosh, R. Ganguly, C.M. Megaridis, Rapid, self-driven liquid mixing on open-surface microfluidic platforms, *Scientific Reports*, **7**(1),1800, 2017.
15. P.K. Das, N. Islam, A.K. Santra, R. Ganguly, Experimental investigation of thermophysical properties of Al<sub>2</sub>O<sub>3</sub>-water nanofluid: Role of surfactants, *Journal of Molecular Liquids* **237**, 304-312, 2017.
16. V. Halder, N. Chakraborty, A novel evolutionary technique based on electrolocation principle of elephant nose fish and shark: fish electrolocation optimization, *Soft Computing*, **21**(14), 3827-3848, 2017.
17. A. Hazra, S. Das, M. Basu, An efficient fault diagnosis method for PV systems following string current, *Journal of Cleaner Production* **154**, 220-232, 2017.
18. B.J. Zhang, R. Ganguly, K.J. Kim, C.Y. Lee, Control of pool boiling heat transfer through photo-induced wettability change of titania nanotube arrayed surface, *International Communications in Heat and Mass Transfer*, **81**, 124-130, 2017.
19. S. Chatterjee, D. Bhowmik, A. Mukhopadhyay, R. Ganguly, Analysis of static and dynamic contact angles of ferrofluid droplets for magnetically actuated micropumps, *Lecture Notes in Mechanical Engineering*, Part F8, pp. 1341-1349, 2017.
20. D. Ray, A. Mukhopadhyay, R. Ganguly, Flow in thermomagnetic energy conversion loops, *Lecture Notes in Mechanical Engineering*, Part F8, 1585-1594, 2017.
21. U. Sen, S. Chatterjee, S. Sen, A. Mukhopadhyay, R. Ganguly, Dynamics of magnetic modulation of ferrofluid droplets for digital microfluidic applications, *Journal of Magnetism and Magnetic Materials*, **421**, 165-176, 2017.
22. D. Chakrabarty, S. Dutta, N. Chakraborty, R. Ganguly, Magnetically actuated transport of ferrofluid droplets over micro-coil array on a digital microfluidic platform, *Sensors and Actuators, B: Chemical*, **236**, pp. 367-377, 2016.
23. P.K. Das, A.K. Mallik, R. Ganguly, A.K. Santra, Synthesis and characterization of TiO<sub>2</sub>-water nanofluids with different surfactants, *International Communications in Heat and Mass Transfer*, **75**, 341-348, 2016.
24. S. Biswas Raha, K.K. Mandal, N. Chakraborty, Pareto-efficient double auction power transactions for economic reactive power dispatch, *Applied Energy*, **168**, 610-627, 2016.
25. C. Jena, M. Basu, C.K. Panigrahi, Improved Differential Evolution for Combined Heat and Power Economic Dispatch, *International Journal of Emerging Electric Power Systems*, **17**(2), 151-163, 2016.
26. T.P. Koukoravas, A. Ghosh, P.S. Mahapatra, R. Ganguly, C.M. Megaridis, Spatially-selective cooling by liquid jet impinging orthogonally on a wettability-patterned surface, *International Journal of Heat and Mass Transfer*, **95**, 142-152, 2016.
27. K. Roy, K.K. Mandal, A.C. Mandal, A.C., Modeling and managing of micro grid connected system using Improved Artificial Bee Colony algorithm, *International Journal of Electrical Power and Energy Systems*, **75**, 50-58, 2016.

28. C. Jena, M. Basu, C.K. Panigrahi, Differential evolution with Gaussian mutation for combined heat and power economic dispatch, *Soft Computing*, **20**(2), 681-688, 2016.
29. K. Halder, S. Das, S. Dasgupta, S. Banerjee, A. Gupta, Controller design for Networked Control Systems-An approach based on L2 induced norm, *Nonlinear Analysis: Hybrid Systems*, **19**, 134-145, 2016.

#### **8. Collaborative Programmes:**

1. Prof. Amitava Gupta collaborated with IIT Kanpur for the research guidance of M.Tech and PhD students
2. Dr. Ranjan Ganguly collaborated with Prof. C.M.Megaridis of University of Illinois, Chicago, USA, for the study of condensation on wettability patterned surfaces
3. Dr. Ranjan Ganguly collaborated with NTPC Ltd. for the study of fog harvesting from cooling tower
4. Prof. Niladri Chakraborty is collaborating with NTPC Limited for possible Academic Tie Up between Jadavpur University and NTPC Limited
5. Prof. Niladri Chakraborty is collaborating with COAL INDIA Limited for possible Academic Tie Up between Jadavpur University and Coal India Limited
6. Prof. Niladri Chakraborty is further developing Collaboration with National Physical Laboratory, New Delhi Limited for Environmental Research with Jadavpur University
7. Prof. Niladri Chakraborty is developing Collaboration with Central Mining and Fuel Research Institute, Dhanbad for Joint Research Activity with Jadavpur University
8. Prof. Niladri Chakraborty is developing Collaboration with WBPDC, Balreswar Plant for Water Consumption Pattern Analysis of Coal Based Power Plants in West Bengal

#### **9. Major Achievements by Faculty Members**

- Dr. Ranjan Ganguly is acting as Adjunct Associate Professor at the Mechanical and Industrial Engineering Department of University of Illinois at Chicago.
- Prof. Ranjan Ganguly visited Mechanical and Industrial Engineering Department of University of Illinois at Chicago from June to July, 2016, for a research collaboration under the invitation from UIC.
- Prof. Amitava Gupta is acting as Adjunct Professor of IIT Kanpur (IDP in Nuclear Engg.)
- Prof. Amitava Gupta attended a Training Series for Nuclear Security at Texas A&M University on July 3-9, 2016, on invitation from the Department of State of the United States Government.
- Best Poster Award at Microfluidics, Liquid Handling and Lab on a Chip 2016, "Magnetically Manipulated Sample Handling System on Digital Microfluidic Platforms", Debiprasad Chakrabarty, Susovan Dutta, Niladri Chakraborty, Ranjan Ganguly.
- Prof. Niladri Chakraborty provided consultancy to Emami Paper Limited along with Professor A. Datta & Prof. R. Ganguly for Energy Audit of the whole Paper Mill through IIPC, JU
- Prof. Niladri Chakraborty provided consultancy to Emami Paper Limited for investigating the root cause of extra loss of the station transformer of the Paper Mill through IIPC, JU

- Prof. Nildari Chakraborty provided consultancy to Heaven Architect for estimation of the power load and design vetting of the Shramik Bhavan at Asansol, West Bengal for ADDA through IIPC, JU
- Prof. Nildari Chakraborty provided consultancy to Reform Consulting Limited, Kolkata as Advisor on Curriculum Design for SAP based modules through Jadavpur University
- The Department is recognized by MNRE, Govt. of India as an Institute in the National Network of Testing of Small Hydro Plants at site. Prof. Bireswar Majumdar is the team leader in conducting the tests
- Prof. Amitava Datta has served as expert in the NAAC peer team for the evaluation of University and college
- Prof. Amitava Datta has served as the Chairman of the Core Expert Committee of West Bengal Joint Entrance Examination Board
- Prof. Amitava Datta acted as Member in the Joint Working Group on Combustion formed by GTRE, DRDO, Govt. of India

#### **Patents, Patent Applications and Invention Disclosures**

1. Chatterjee, S., Mahapatra, P.S., Sen, U., Ganguly, R., Megaridis, C.M., "A method and device for moving and distributing aqueous liquids at high rates on porous, nonwoven substrates," Tech ID: 65/013,631, Disclosure filed at OTM of UIC on 18.11.2016

### **PRINTING ENGINEERING**

#### **(SALT LAKE CAMPUS)**

Phone : + 91-33-2335-0408  
Int. : 6189  
H.O.D. : Prof. Kanai Ch. Paul  
E-mail : hod@pe.jusl.ac.in  
hodprinting@jadavpuruniversity.in

#### **1. A. Courses Offered:**

- BE (Printing), 4 years, intake: 31+Lateral Entry in 2<sup>nd</sup> year
- M E in Printing Engineering & Graphic Communication
- Ph. D. (Engineering), presently 6 Scholars

#### **1. B. No. of Faculty Members:** 08 full time, 02 visiting

#### **2. A. Area of Research Activities:**

Surface Coating, Material Science, Digital Imaging, Colour Science, Security Printing, Digital image processing, Digital Halftoning, non-impact printing, Packaging, Ink Technology etc.

**2. B. Major Research Project:**

- i) DST-PURSE programme co-ordinated by HOD (funded by GOI)
- ii) Indo-French Collaborative Research Project “Pack-Mark”, P.I.: Dr Swati Bandyopadhyay

**3. A. Invited Lectures Delivered/ Session Chaired:**

Prof. A. K. Pal, Chaired a session on the Workshop “ **Computer Vision: Concepts, Trends and Application**” held on 31<sup>st</sup> March 2017 at Hotel SONET, Salt Lake, Kolkata.

**3. B. Seminar/Workshop/Conference/Symposium Attended:**

By Dr. Arpitam Chatterjee and Dr. Shilpi Naskar:

- Two-day national seminar on “Shaping the Future of Indian Power Sector through Renewable Energy” at the Department of Power Engineering, Jadavpur University Salt Lake Campus, Kolkata, 09 – 10 September, 2016.
- Three day workshop on “Initiative in Outcome Based Education and NBA Accreditation” at Hyatt Regency, Kolkata , 06 – 08 March, 2017.
- One day workshop on “Sensor Systems for Agricultural Application” at Hotel Sonnet, Block: DD, Plot no. 8, Sector I, Kolkata, 15th March, 2017.
- One day seminar on “Internet-of-Things (IoT): Ecosystem and Applications” at Jadavpur University, Sat Lake Campus, Kolkata, 28<sup>th</sup> March, 2017.

**3. C. Seminar/Workshop/Conference/Symposium Organized:**

One Day workshop on Workshop “ **Computer Vision: Concepts, Trends and Application**” held on 31<sup>st</sup> March 2017 at Hotel SONET, Salt Lake, Kolkata under TEQIP II workshop grant. Convenor: Prof. Kanai Chandra Paul, Joint Conveners: Dr. Arpitam Chatterjee and Dr. Shilpi Naskar

**3. D. Orientation Courses/Refresher Courses Attended:**

**Ms Mahasweta Mondal** attended an Orientation Course conducted by HRDC, Mumbai University at Mumbai 6<sup>th</sup> January 2017-2<sup>nd</sup> February 2017.

**4. Publications in International Journals and Conferences:**

**A. International Journals:**

- 1) Kundu, Pradeep, Kiran Pal, A.; “Some Novel Methods of Ordered Dither”, Acta Graphica, ISSN: 0353-4707, 26(2015)4, Pages: 5-10
- 2) Kundu, Pradeep, PhD Thesis, “A Novel Approach to Non-Halftone Binary Image Transformations, Digital Halftoning and Color Halftone Proofing” Degree awarded April 2017.
- 3) G. Mukherjee, A. Chatterjee, B. Tudu: Color feature based approach towards maturity discrimination of medicinal plants: Case study with Kalmegh (*Andrographis paniculata*), Computational Science and Engineering – Deyasi et al. (Eds), Taylor & Francis Group, ISBN 978-1-138-02983-5, pp. 99 – 103, 2017.
- 4) D. Mandal, A. Chatterjee, B. Tudu: Identification of commercially available turmeric powders using color projection features, Computational Science and Engineering – Deyasi et al. (Eds), Taylor & Francis Group, ISBN 978-1-138-02983-5, pp. 95 – 98, 2017.



- 5) S. K. Mondal, A. Chatterjee, B. Tudu: Image contrast enhancement using a crossover-included hybridartificial bee colony optimization, Computer, Communication and Electrical Technology – Guha, Chakraborty&Dutta (Eds), Taylor & Francis Group, ISBN 978-1-138-03157-9, pp. 49 – 53, 2017.
- 6) S.Naskar, K.C.Paul, and A.K.Pal, Analysis of the thermal behavior of gravure inks: comparing experimental results and numerical methods, Journal of print and media technology research Vol IV,2015, DOI 10.14622/JPMTR-1411

**4. B. International Conferences:**

- 1) G. Mukherjee, A. Chatterjee, B. Tudu: Study on the potential of combined GLCM featurestowards medicinal plant classification, Proc. 2016 2nd International Conference on Control, Instrumentation, Energy & Communication (CIEC), pp. 98 – 102, 2016.
- 2) S. K. Mondal, A. Chatterjee& B. Tudu, A Hybrid Particle Swarm Optimization and Artificial Bee Colony algorithm for Image Contrast Enhancement in: Proc. of 2<sup>nd</sup> International Conference on Computing & Communication System (I3CS 2016), 2016.
- 3) P.Das, K.C.Paul and A.Chatterjee, Optimizing Luminance and Chrominance Filtered Channels by Binary Genetic Algorithm(BGA) to generate color Halftone Image, Proceedings of IEEE sponsored Third International Conference on Image Information Processing, December, Simla,2015,pp439-443

**5. Collaborative Programmes:**

- i) Collaborative Programme of KMC for Modernisation of printing presses under the co-ordinatorship of Dr. K.C.Paul & Prof. Dr. A.K.Pal.
- ii) Collaborative Programme of Modernisation of WB Govt. presses under the co-ordinatorship of Prof. Dr. A.K.Pal & Dr K.C.Paul
- iii) Collaborative Programme of Indian Institute of Packaging, Kolkata regarding ‘PG Diploma in Packaging Technology’ under the co-ordinatorship of Prof. A.K.Pal & Dr. K.C.Paul

**6. Major Achievements:**

- Research activities by the faculties of the department in the field of Coating technology, Paper technology, Ink technology, Material Sciences, Electronic Publishing, Colour Sciences, Rheology, Non-impact printing etc published several research papers in the field.
- Research papers published by UG students at National Level Conference organized by Anna University.
- Prof. Dr. Arun Kiran Pal is acting as Technical Expert in Standing Working Committee of Ministry of Finance, Department of Economic Affairs, Govt. of India.
- Dr. K.C.Paul is acting as a expert member of Technical Expert Committee of KMC, Govt. of West Bengal.

## PRODUCTION ENGINEERING

Phone : + 91-33-2414-6153  
Int. : 2457-2319  
H.O.D. : Dr. Debmalya Banerjee  
E-mail : hod@production.jdvu.ac.in  
hodproduction@jadavpuruniversity.in

### 1. A. Courses Offered:

- a. Bachelor of Production Engineering: 4 – years, No. of Students - 49 in each year
- b. Master of Production Engineering: 2– years , No. of Students - 13 in each year
- c. Ph.D. (Engg)

### 1. B. Number of Faculty Members : 11

**2. A. Area of Research Activities :** Ergonomics, Computer Integrated Manufacturing, Industrial Engg., Robotics, Sensors, Computer Vision, Microprocessor Applications, Mechatronics, Laser Beam Machining, Engineering Graphics, Computer Graphics, Production Management, Tribology/ Reliability/ Terotechnology/ Operations Management, Operations Research, Project Management, Soft Computing, Management Development Programme, Adv. Manufacturing Technology (Non-Traditional Machining (NTM) Processes) / Machine Tool Systems/ Advanced Machining, LASER, ECDM, EDM, Concurrent Engineering, TQM, Thermal Engineering, Inspection & Quality Control, Maintenance Management & Terotechnology, Decision Making Techniques, Production Technology, Advanced Machining Processes, Engineering Graphics/Computer Graphics/ CAD-CAM Tribology/ Artificial Intelligence, Robotics, CNC M/c, Automation.

### 2. B. Major Research Project :

1. Prof. B. Bhattacharyya PI. and Prof. B.N. Doloi Co-PI. of ongoing Project title: “Development of Wire Electrochemical Machining (WECM) Setup for generation of micro features.”, funded by DST NewDelhi (Rs. 53,82,000/-)

### 3. A. Invited Lectures Delivered/Sessions Chaired:

1. Prof. Bijan Sarkar delivered an invited talk at the Faculty Development Programme (FDP) organized by BMS College of Engineering, Bangalore- 560 019 during March 17-18, 2017
2. Prof. Bijan Sarkar acted as an external expert for Ph.D Programme of Department of Business Management, University of Calcutta, on March 10, 2017 at 3.00 p.m. in Kolkata
3. Prof. Bijan Sarkar delivered a lecture in the 6<sup>th</sup> Indian School of Logic and its Applications (ISLA) workshop held during August 23-27, 2016 at Darshan Bhavan Auditorium, Jadavpur University.

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4. Prof. Bijan Sarkar was invited to chair a Technical Session on “Frontiers in Optimization : Theory & Applications (FOTA 2016)” organized by The Operational Research Society of India (ORSI) & Heritage Institute of Technology, Kolkata on 24th November 2016 in Kolkata
5. Prof. Bijan Sarkar delivered an Expert Lecture on “Advanced Joining Technologies – 2016 “ in the workshop organized by National Institute of Technology (NIT), Silchar, Assam-788 010 on 19th October 2016
6. Prof. Bijan Sarkar delivered an Expert Lecture on “Research Methodology “ in the course work organized by MCKV Institute of Engineering, Liluah, Howrah – 711 204 on 3rd September & 10th September 2016 at 2-6 pm both the days
7. Prof. Bijan Sarkar delivered an Expert Lecture on “Research Methodology” in Ph.D Course work organized by Heritage Institute of Technology, Kolkata on October 18 & November 08, 2016 at 4-6 pm for both the days
8. Prof. Bijan Sarkar delivered lecture as GUEST SPEAKER in the National Conference entitled “RESEARCH INITIATIVES IN SCIENCE & TECHNOLOGY-2016” organized by Camellia School of Engineering & Technology, Nadibhag, Kazipara, Barasat, Kolkata 700 124 on 12th May 2016.
9. Prof. A.S. Kuar delivered an lecture on “A Study on Laser Cutting and Micro-drilling Process”, National Workshop on Laser Material Processing Technology (NWLMP-2016), Production Engg. Dept., Jadavpur University, 27<sup>th</sup> September, 2016.
10. Prof. B. Doloi acted as “Chairman of Technical Session” of 6<sup>th</sup> International and 27<sup>th</sup> AIMTDR Conference, Govt. College of Engg., Pune 12<sup>th</sup> to 14<sup>th</sup> December, 2016.
11. Prof. B. Doloi delivered lecture on “Laser Marking on Engineering Materials”, National Workshop on Laser Material Processing Technology (NWLMP-2016), Production Engg. Dept., Jadavpur University, 27<sup>th</sup> September, 2016.
12. Prof. B. Doloi delivered an lecture on “Hybrid Subtractive Manufacturing Processes: Possibilities and Challenges”, National Workshop on Hybrid Manufacturing Technology (HMT-2017). Production Engg. Dept., Jadavpur University, 8<sup>th</sup> March 2017.
13. Prof. B. Doloi delivered lecture on “Curriculum of Production Engineering Discipline: Past, Present and Future”, Workshop on Curriculum Development 2017, Production Engg. Dept., Jadavpur University, 9<sup>th</sup> March 2017
14. Prof. B. Doloi delivered lecture on “Laser Beam Machining Process :An Overview”, Workshop on Advanced Machining Processes, Mechanical Engg. Dept., Jadavpur University 22<sup>nd</sup> March 2017.
15. Prof. B. Doloi delivered lecture on “Advances in Machining Processes”, Short Term course on Recent Advances in Manufacturing Engineering (RAME-2016), VSSUT, Odisha, 18<sup>th</sup> to 23<sup>rd</sup> April, 2016
16. Prof. B. Doloi delivered lecture on “Laser Beam Micro-Machining Processes for Micro-Manufacturing Applications”, Short Term course on Recent Advances in Manufacturing Engineering (RAME-2016), VSSUT, Odisha, 18<sup>th</sup> to 23<sup>rd</sup> April, 2016
17. Prof. B. Doloi delivered lecture on “Advances in Manufacturing: Rapid Response Manufacturing: A Concurrent Engineering Approach”, National Seminar on Recent Trends and Future Advancements in Manufacturing Technology (RTFAMT-2016), SVIST, Kolkata 23<sup>rd</sup> April, 2016
18. Prof. B. Doloi delivered lecture on “Advances in Electrochemical Discharge Micro-Machining Technology”, National Workshop on Micro-Machining Technology (MMT-2016) IIT BHU, 17<sup>th</sup> June, 2016

19. Prof. B. Doloi delivered lecture on “Recent Advances in Electrochemical Discharge Micro-Machining”, National Seminar on Micro-Machining (MM-2016) MCKVIE, Kolkata, 13<sup>th</sup> to 15<sup>th</sup> Sept., 2016
20. Prof. B. Doloi delivered lecture on “Advances in Ultrasonic Machining for generating meso and micro features”, National Seminar on Micro-Machining (MM-2016), MCKVIE, Kolkata 13<sup>th</sup> to 15<sup>th</sup> Sept., 2016
21. Prof. B. Doloi delivered lecture on “Laser Micro-Machining Processes for Manufacturing Applications”, Short Term Course on Advances in Mechanical Engineering (AME 2016) Heritage Institute of Technology, Kolkata, 27<sup>th</sup> July, 2016
22. Prof. B. Doloi delivered lecture on “Rapid Prototyping and Rapid Tooling for Investment Casting: Rapid Response Manufacturing Approach “, National Workshop on Investment Casting (NWIC 2016), CSIR-CMERI, Durgapur, 1<sup>st</sup> Sept, 2016

**3. B. Seminar/Workshop/Conference/Symposium Attended:**

1. Dr. B.R. Sarkar attended TEQIP-II sponsored workshop Organised by Jadavpur University on “Initiatives in Outcome Based Education and NBA Accreditation” during 6<sup>th</sup>-8<sup>th</sup> March, 2017 at Hyatt Regency, Kolkata.
2. Prof. A.S. Kuar attended TEQIP-II sponsored workshop Organised by Jadavpur University on “Initiatives in Outcome Based Education and NBA Accreditation” during 6<sup>th</sup>-8<sup>th</sup> March, 2017 at Hyatt Regency, Kolkata.
3. Prof. S. Sarkar attended TEQIP-II sponsored workshop Organised by Jadavpur University on “Initiatives in Outcome Based Education and NBA Accreditation” during 6<sup>th</sup>-8<sup>th</sup> March, 2017 at Hyatt Regency, Kolkata.
4. Prof. B. Doloi presented a research paper on “ Parametric analysis and optimization of ultrasonic machining on hydroxyapatite bio-ceramics”, 6<sup>th</sup> International and 27<sup>th</sup> AIMTDR Conference, Govt. College of Engg., Pune, 12<sup>th</sup> to 14<sup>th</sup> December, 2016
5. Prof. B. Doloi attended workshop, “Tribology Frontiers Workshop 2016”, IEST Shibpur, Howrah, 3<sup>rd</sup> to 4<sup>th</sup> August, 2016

**3. C. Seminar/Workshop/Conference/Symposium Organized:**

1. Prof. B. Doloi organized One Day Workshop on “National Workshop on Laser Material Processing Technology (NWLMPPT-2016)”, at Production Engg. Dept., Jadavpur University , 27<sup>th</sup> September, 2016
2. Prof. B. Doloi organized One Day Workshop on “National Workshop on Hybrid Manufacturing Technology (HMT-2017)”, at Production Engg. Dept., Jadavpur University, 8<sup>th</sup> March 2017
3. Prof. D. Banerjee organized One Day Workshop on “Curriculum of Production Engineering Discipline: Past, Present and Future”, Production Engg. Dept., Jadavpur University, 9<sup>th</sup> March 2017

**4. A. Books/Monographs etc. Published :**

1. Roy N, Kuar AS, Mitra S. Underwater pulsed laser beam cutting with a case study. Microfabrication and Precision Engineering: Research and Development; 2016. p. 189-212. ISBN: 978-0-85709-485-8

2. Roy N, Kuar AS, Mitra S., Laser Beam Micro-cutting, Non-traditional Micromachining Processes- Fundamentals and Applications Springer ebook ISBN 978-3-319-52009-4, Hardcover ISBN 978-3-319-52008-7, 2016. p. 253-274
3. S. Das, B. Doloi, B. Bhattacharyya, Recent Advancement on Ultrasonic Micro Machining (USMM) Process, Non-traditional Micromachining Processes- Fundamentals and Applications Springer ebook ISBN 978-3-319-52009-4, Hardcover ISBN 978-3-319-52008-7, DOI 10.1007/978-3-319-52009-4.
4. G. Kibria, B. Doloi, B. Bhattacharyya, Laser Micro-turning Process of Aluminium Oxide Ceramic Using Pulsed Nd:YAG Laser, Non-traditional Micromachining Processes- Fundamentals and Applications, Springer ebook ISBN 978-3-319-52009-4, Hardcover ISBN 978-3-319-52008-7, DOI 10.1007/978-3-319-52009-4.
5. A.Sen , B. Doloi, B. Bhattacharyya, Fiber Laser Micro-machining of Engineering Materials, Non-traditional Micromachining Processes- Fundamentals and Applications, Springer, ebook ISBN 978-3-319-52009-4, Hardcover ISBN 978-3-319-52008-7, DOI 10.1007/978-3-319-52009-4.
6. V. Rathod , B. Doloi, B. Bhattacharyya, Electrochemical Micromachining (EMM): Fundamentals and Applications, Non-traditional Micromachining Processes- Fundamentals and Applications, Springer, ebook ISBN 978-3-319-52009-4, Hardcover ISBN 978-3-319-52008-7, DOI 10.1007/978-3-319-52009-4).
7. B.R. Sarkar, B. Doloi, B. Bhattacharyya, Electrochemical Discharge Micro-machining of Engineering Materials, Non-traditional Micromachining Processes- Fundamentals and Applications, Springer, ebook ISBN 978-3-319-52009-4, Hardcover ISBN 978-3-319-52008-7, DOI 10.1007/978-3-319-52009-4).

**4. B. Articles Published in Journals: (Including National/International & Peer-reviewed Journals)**

1. Roy N, Kuar AS, Mitra S, Das A. Submerged pulsed Nd:YAG laser beam cutting of Inconel 625 superalloy: Experimental investigation. *Lasers Eng* 2016;35(1-4):151-171.
2. Prakash S, Acherjee B, Kuar AS, Mitra S. Robust parameters design and optimization of an underwater Nd:YAG laser microchanneling process using the taguchi method. *Lasers Eng* 2016;33(1-3):87-102.
3. Acherjee B, Maity D, Kuar AS. An approach to select the optimal process parameters of laser transmission welding using firefly algorithm. *Int J Innovative Comput Appl* 2016;7(3):163-178.
4. Dey B, Bairagi B, Sarkar B, Sanyal SK. Multi objective performance analysis: A novel multi-criteria decision making approach for a supply chain. *Comput Ind Eng* 2016;94:105-124.
5. Das D, Bhattacharya S, Sarkar B. Decision-based design-driven material selection: A normative-prescriptive approach for simultaneous selection of material and geometric variables in gear design. *Mater Des* 2016;92:787-793.
6. Bakshi T, Sinharay A, Sarkar B, Sanyal SK. Introduction to soft-set theoretic solution of project selection problem. *Benchmarking* 2016;23(7):1643-1657.
7. Ghosh A, Mal P, Majumdar A, Banerjee D. Optimization of knitted fabric comfort and UV protection using desirability function. *J Eng Fibers Fabr* 2016;11(4):20-28.
8. Samanta A, Sekh M, Sarkar S. Influence of different control strategies in wire electrical discharge machining of varying height job. *Int J Adv Manuf Technol* 2016:1-11.



9. Selvakumar G, Bravilin Jiju K, Sarkar S, Mitra S. Enhancing die corner accuracy through trim cut in WEDM. *Int J Adv Manuf Technol* 2016;83(5-8):791-803.
10. Das S, Doloi B, Bhattacharyya B. Fabrication of stepped hole on zirconia bioceramics by ultrasonic machining. *Mach Sci Technol* 2016;20(4):681-700.
11. Das S, Kumar S, Doloi B, Bhattacharyya B. Experimental studies of ultrasonic machining on hydroxyapatite bio-ceramics. *Int J Adv Manuf Technol* 2016;86(1-4):829-839.
12. Ghosh T, Doloi B, Dan PK. Applying soft-computing techniques in solving dynamic multi-objective layout problems in cellular manufacturing system. *Int J Adv Manuf Technol* 2016;86(1-4):237-257.
13. Ghosh T, Doloi B, Dan PK. An Immune Genetic algorithm for inter-cell layout problem in cellular manufacturing system. *Prod Eng* 2016;10(2):157-174.
14. Kibria G, Doloi B, Bhattacharyya B. Generation of defined micro-turning surface roughness on Al<sub>2</sub>O<sub>3</sub> ceramic by pulsed Nd:YAG laser micro-turning process. *Lasers Eng* 2016;35(1-4):227-238.
15. Sen A, Doloi B, Bhattacharyya B. Fibre laser microchanneling of polymethyl methacrylate (PMMA). *Lasers Eng* 2016;35(1-4):123-138.
16. Roy N, Kuar AS, Mitra S. Underwater pulsed laser beam cutting with a case study. *Microfabrication and Precision Engineering: Research and Development*; 2016. p. 189-212.
17. Das Adhikary D, Bose GK, Jana DK, Bose D, Mitra S. Availability and cost-centered preventive maintenance scheduling of continuous operating series systems using multi-objective genetic algorithm: A case study. *Qual Eng* 2016;28(3):352-357.
18. Selvakumar G, Bravilin Jiju K, Sarkar S, Mitra S. Enhancing die corner accuracy through trim cut in WEDM. *Int J Adv Manuf Technol* 2016;83(5-8):791-803.
19. Roy N, Kuar AS, Mitra S, Das A. Submerged pulsed Nd:YAG laser beam cutting of Inconel 625 superalloy: Experimental investigation. *Lasers Eng* 2016;35(1-4):151-171.
20. Prakash S, Acherjee B, Kuar AS, Mitra S. Robust parameters design and optimization of an underwater Nd:YAG laser microchanneling process using the taguchi method. *Lasers Eng* 2016;33(1-3):87-102.
21. Boral S, Chakraborty S. A case-based reasoning approach for non-traditional machining processes selection. *Adv Prod Eng Manag* 2016;11(4):311-323.
22. Chakraborty S, Prasad K. A QFD-based expert system for industrial truck selection in manufacturing organizations. *J Manuf Technol Manage* 2016;27(6):800-817.
23. Karande P, Zavadskas EK, Chakraborty S. A study on the ranking performance of some MCDM methods for industrial robot selection problems. *Int J Ind Eng Comput* 2016;7(3):399-422.
24. Prasad K, Chakraborty S. A knowledge-based system for end mill selection. *Advances in Production Engineering and Management* 2016;11(1):38-48.
25. Ranjan R, Chatterjee P, Chakraborty S. Performance evaluation of Indian states in tourism using an integrated PROMETHEE-GAIA approach. *Opsearch* 2016;53(1):63-84.
26. Ranjan R, Chatterjee P, Chakraborty S. Performance evaluation of Indian Railway zones using DEMATEL and VIKOR methods. *Benchmarking* 2016;23(1):78-95.
27. Dwivedi R, Chakraborty S. Development of a strategic management tool in a thermal power plant using ABC and BSC models. *Sib J Manage* 2016;11(1):81-97.



28. Khandekar AV, Chakraborty S. Application of fuzzy axiomatic design principles for selection of non-traditional machining processes. *Int J Adv Manuf Technol* 2016;83(1-4):529-543.
29. Dey S, Chakraborty S. A study on the machinability of some metal alloys using grey topsis method. *Decis Sci Lett* 2016;5(1):31-41.
30. Prasad K, Chakraborty S. A QFD-based decision making model for computer-aided design software selection. *Int J Ind Eng Manage* 2016;7(2):49-58.
31. Khandekar AV, Chakraborty S. Personnel selection using fuzzy axiomatic design principles. *Bus Theory Pract* 2016;17(3):251-260.
32. Chatterjee P, Chakraborty S. A comparative analysis of VIKOR method and its variants. *Decis Sci Lett* 2016;5(4):469-486.
33. Prasad K, Chakraborty S. A quality function deployment-based model for cutting fluid selection. *Adv Tribol* 2016;2016.
34. Kibria G, Bhattacharyya B. Microelectrical discharge machining of Ti-6Al-4V: Implementation of innovative machining strategies. *Microfabrication and Precision Engineering: Research and Development*; 2016. p. 99-142.
35. Das S, Doloi B, Bhattacharyya B. Fabrication of stepped hole on zirconia bioceramics by ultrasonic machining. *Mach Sci Technol* 2016;20(4):681-700.
36. Anasane SS, Bhattacharyya B. Experimental investigation on suitability of electrolytes for electrochemical micromachining of titanium. *Int J Adv Manuf Technol* 2016;86(5-8):2147-2160.
37. Das S, Kumar S, Doloi B, Bhattacharyya B. Experimental studies of ultrasonic machining on hydroxyapatite bio-ceramics. *Int J Adv Manuf Technol* 2016;86(1-4):829-839.
38. Ghoshal B, Bhattacharyya B. Electrochemical micromachining of microchannel using optimum scan feed rate. *J Manuf Processes* 2016;23:258-268.
39. Anasane SS, Bhattacharyya B. Experimental investigation into fabrication of microfeatures on titanium by electrochemical micromachining. *Adv Manuf* 2016;4(2):167-177.
40. Kibria G, Doloi B, Bhattacharyya B. Generation of defined micro-turning surface roughness on Al<sub>2</sub>O<sub>3</sub> ceramic by pulsed Nd:YAG laser micro-turning process. *Lasers Eng* 2016;35(1-4):227-238.
41. Sen A, Doloi B, Bhattacharyya B. Fibre laser microchanneling of polymethyl methacrylate (PMMA). *Lasers Eng* 2016;35(1-4):123-138.

## **6. Major Achievements:**

1. Prof. Bijan Sarkar has been nominated as CONVENOR of the Production Engineering Divisional Subcommittee of West Bengal State Centre, IE (INDIA) for the sessions 2016-2017 and 2017-2018.
2. Prof. Bijan Sarkar has been invited as a member by the Doctoral Scrutiny Committee (DSC) in 14th Senate meeting for Ph.D programme in Mechanical Engineering Department, NIT, and Patna in respect of two research scholars.
3. Prof. Bijan Sarkar was invited to attend Ph.D Committee meeting (Management) of Maulana Abul Kalam Azad University of Technology (formerly known as WBUT), Salt lake, Kolkata-700 064 on September 27, 2016.

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4. Prof.Bijan Sarkar was invited to conduct the viva- voce examination of Ph.D degree at National Institute of technology (NIT), Rourkella-769 008, Odisha on 28 December 2016.
5. Prof.Bijan Sarkar have been reelected uncontested as the **Hon. Secretary** of the Operational Research Society of India (ORSI) for the calendar years 2017-18.
6. Prof.Bijan Sarkar was invited to act a member in the Selection Board constituted by Recruitment & Assessment Centre of Defense Research & Development Organization (DRDO) for Recruitment of Scientists/Engineers in Bangalore – 560 001 on 28-09-2016 to 01-10-2016.
7. Prof.Bijan Sarkar has been selected as an **Associate Editor** of the Operational Research Society of India (ORSI)'s official journal **OPSEARCH** with immediate effect (from 29th November 2016 to 31st December 2019).
8. Prof. Bijan Sarkar was invited to conduct the viva- voce examination of M.Tech degree at I.I.T., Kharagpur on 4th May 2016.
9. Prof. Bijan Sarkar was invited to act as guest faculty of the M.Phil course in the School of Cognitive Science, Jadavpur University for the session 2015-17.

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SECTION B

[ACADEMIC REPORT. 1.04.2016 TO 31.03.2017]

FACULTY COUNCIL OF SCIENCE

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D E P A R T M E N T S

***Annual Report 2016-17***

**Annual Report 2016-17**

**CHEMISTRY**

Phone & Fax : + 91-33-2414 6223  
+ 91 336 2457 2267  
Int. : 2457-2267  
2457-2147(Inorganic)/ 2104 (Organic)/  
2458(Physical)/2453 (Radio Chemistry)  
H.O.D. : Prof. Kalyan Kumar Das  
E-mail : hodjuchemistry@gmail.com  
hod@chemistry.jdvu.ac.in  
hod.chemistry@jadavpuruniversity.in

**1. A. Courses Offered:**

Name of the Course	Duration of the Course	No. of Students
B.Sc.	3 years	63 + 61 + 58
M.Sc. (Day)	2 years	40 × 2
M.Sc. (Evening)	3 years	35 × 3

**B. Number of Faculty Members:**

Professor	Reader / Associate Professor	Assistant Professor
22	04	11

**2. A. Area Research Activities:**

**Prof. Kalyan Kumar Das**

- Spectroscopic features of small molecules using Configuration Interaction calculations.
- Ab initio based quantum mechanical calculations on: Molecular Electronics, Nanosensors and Protein-Drug interaction.

**Prof. Samaresh Bhattacharya**

Coordination chemistry of the platinum group of metals: Synthesis, characterization and exploration of catalytic potential

**Prof. Rina Ghosh**

- Development of regio-, chemo- and stereoselective methods in organic synthesis with special reference to carbohydrate field
- Synthesis of oligosaccharides related to bacterial polysaccharide
- Studies on Chemosensors
- Studies on anti-thyroidal compounds isolable from bamboo-shoot (Collaborative)

**Professor Ambikesh Mahapatra**

Kinetic and mechanistic studies of reduction reactions of transition metal complexes by different reducing agents of biochemical importance in different micellar & reverse micellar environments. Investigations on effect of nanoparticle, polymer-surfactant interaction & mixed micelles on redox & hydrolytic reactions involving transition metal complexes and fluorophores.

**Prof. Chandan Kumar Mondal**

Dynamical study of real and model quantum system.

**Prof. Chittaranjan Sinha**

Coordination Chemistry, Ion and molecular Sensor, Metal complexes as medicine, Photoluminescence, Photochromism, Electrochemistry, Computation

**Prof. Subratanath Koner**

Coordination Chemistry, Heterogeneous Catalysis, Molecular Magnetism, Mesoporous Materials

**Prof. Umesh Chandra Halder**

- a. Physico-chemical modifications of globular proteins and studies on their effect on protein folding and studies on molecular interactions during amorphous or amyloid fibril formation. Our study will be helpful to develop the molecule useful for prevention of protein aggregation responsible for neurodegenerative diseases like Parkinson and Alzheimer's diseases.
- b. Studies on interactions of proteins with small molecules including different drugs, peptides etc.
- c. Purification, characterization and structure determination of novel serine proteases and their protein inhibitors for their commercial applications.
- d. Developments of nanoparticles based system and their influence on structure, function and aggregation of proteins and also the targeted drug deliver.
- e. Purification and structure determination of a silica leaching protein" Bioremediase, a unique protein from a novel bacterium BhKI, ushering a new hope in concrete technology".

**Prof. Nitin Chattopadhyay**

Photochemistry, Biophysical chemistry, Surface chemistry, Steady-state and time-resolved fluorometric study of various photophysical and photochemical processes in homogeneous as well as microheterogeneous environments, Binding of drugs with relevant biological targets like proteins, DNA etc., Fluorescence sensing, Polymer photophysics, Theoretical modeling and simulations of photophysical and/or photochemical observations.

**Prof. Mahammad Ali**

Molecule based magnets: 3d, and 3d-4f complexes with SMM, SCM or SIM behavior; Homogeneous and Heterogeneous Catalysis; Molecular Sensors; Polyoxometallates.

**Prof. Swapan Kumar Bhattacharya**

Catalysis, Electrochemistry, Physical Chemistry

**Prof. Gourhari Maiti**

Multi-component reactions for the synthesis of bioactive heterocyclic compounds; Development of reagents and methodologies towards the synthesis of heterocyclic molecules of biological importance; Lewis acid mediated various organic transformations; Synthesis of small heterocyclic molecules of biological importance by using organocatalyst.

**Prof. Soumen Ghosh**

Surface and Biophysical Chemistry

**Prof. Jana Prakash Naskar**

Coordination Chemistry



**Prof. Kajal Krishna Rajak**

Synthesis, structural characterization of luminescent metal (especially of Zinc, Rhenium, Rhodium, Iridium etc.) complexes.

**Prof. Sujoy Baitalik**

Photophysics and Photochemistry of Coordination Compounds; Recognition and Sensing of Selected Ions

**Dr. Tanurima Bhaumik**

Synthetic Organic Chemistry

**Dr. Partha Pratim Parui**

Spectroscopy, Analysis of different self-assembled system, Fluorescence sensing

**Dr. Shouvik Chattopadhyay**

Inorganic Chemistry

**Dr. Suman Das**

Biophysical chemistry

**Dr. Arup Gayen**

Heterogeneous catalysis

**Dr. Amrita Saha**

Coordination Chemistry

**Dr. Partha Roy**

Inorganic Chemistry

**Dr. Tapan Kumar Mondal**

- i. Synthesis and characterization of new redox non-innocent azoimine and diimine functionalized heterocyclic ligands and their transition metal complexes.
- ii. Coordination compound of transition metal ions with heterocyclic ligands and study their chemical reactivity through experiments and theoretical studies.
- iii. Synthesis and exploration of potential application of cyclometalated complexes of Platinum Group Metals
- iv. Development of new optical and electrochemical sensors for selective detection of metal ions.

**Dr. Umasish Jana**

- a) Iron-catalyzed intramolecular alkyne-carbonyl metathesis for the synthesis of structurally diverse small organic molecules
- b) Metal-catalyzed domino reaction for the synthesis of benzofused heterocycles
- c) Iron-catalyzed carbon-carbon bond formation via direct substitution of alcohols
- d) Iron-catalyzed synthesis of heterocycles *via* multicomponent coupling (MCRs) reaction.

**Mr. Bibhuti Bhushan Show**

Thin film semiconductors: Synthesis, Characterization and their applications in the field of Photoelectrochemical Cells (PEC) (Solid-Liquid junctions), Solar Cells (Solid-Solid junctions), Photochemical Catalysis, Electrocatalysis and Photo Switching device fabrication.

**Dr. Debajyoti Ghoshal**

Coordination Polymers

**Dr. Saurabh Das**

Area of Research: Bio-inorganic Chemistry, Chemical Biology

- A) Mimicking anthracycline anticancer drugs with hydroxy-9,10-anthraquinones and their metal complexes. The metal complexes of hydroxyanthraquinones (purpurin, carminic acid) were shown to be active on carcinoma cell lines. Efficacy of the complexes was attributed to their cellular uptake. Mechanism of action of complexes was their ability to bind DNA better and act as topoisomerase inhibitors.
- B) 5-nitroimidazoles are broad spectrum antibiotics with potential cure for protozoan, bacterial and fungal infections. They are effective agents in cancer therapy having roles in chemo- and radiotherapy (as radiosensitizers). The compounds are neurotoxic on prolonged use. Effort was made to suitably modify established 5-nitroimidazoles through complex formation so as to control neurotoxic side effects. Generation of the nitro radical anion was regulated to strike the correct balance between efficacy and toxic side effects since  $\text{NO}_2^{\cdot-}$  is associated with both.
- C)  $\text{Cu}^{\text{II}}$  and  $\text{Co}^{\text{II}}$  complexes of 2-(2-hydroxyphenylazo)-indole-3'-acetic acid was synthesized to see the role of metal ions on azo toxicity. Complexes were characterized; DFT calculations based on spectroscopic evidence suggest 1:2:: $\text{M}^{\text{II}}$ :HPIA. Enzyme assay on the reductive cleavage of the azo bond shows complexes formed less amines than HPIA. Since the complexes restrict reduction of the azo bond and has comparable binding with DNA it could be less cytotoxic. *Cis* and *trans* HPIA and complexes were treated to normal HEK293T cells; activity was comparable at low concentration. When compounds were treated to human colon carcinoma HCT116, ALL MOLT-4 human leukemia and MCF-7 breast cancer cells complexes were better than *cis* or *trans* HPIA. Studies revealed complexes of HPIA with  $\text{Cu}^{\text{II}}$  and  $\text{Co}^{\text{II}}$  target carcinoma cells better than HPIA.

**B. Major Research Project:**

**Prof. Samaresh Bhattacharya**

Complexes of platinum metals with azo and imine ligands: Synthesis, characterization and catalytic application in the transformation of environmentally hazardous species 746(Sanc.)/ST/P/S&T/2G-4/2013. WB-DSTRs.16.1 lakhs(approx) From 11/2013 to 11/2016. Completed

Ru, Rh and Pd complexes of soft ligands: Synthesis, characterization and exploration of catalytic properties. 01(2788)/14/EMR-II. CSIRRs.7.5 lakhs(approx). From 10/2014 to 09/2017. Ongoing

**Prof. Rina Ghosh**

1. As PI, "Synthesis of oligosaccharides .....bacterial antigens", CSIR, Scheme No. No.02/0186/14/EMR-II, Total Rs. 8.5 Lacs + amount for scholar. Oct 2014-Sept. 2017.
2. As PI in collaboration. "Studies on Anti-thyroidal .....bamboo-shoots of north east.... Thyroid disruption" DBT-Twin No. BT/471/NE/TBP/2013; My component: 6.75 Lacs; Jan 2015-still continuing.

**Dr. Subratanath Koner**

UGC sponsored project: Synthesis, characterization and catalytic applications of metal complex functionalized silica-based mesoporous solids

**Prof. Chittaranjan Sinha**

- (a) "Azo (-N=N-) and imine (-C=N-) functionalized sulfamethoxazole and their metal complexes: Spectral, structural, photophysical, redox characterization and biochemical activities" Sanctioned by UGC Major Research Project Scheme, No. F.42-333/2013(SR)
- (b) "Exploration of bio-medical potentiality of thiosemicarbazone functionalised sulfonamides, their metal complexes and *In Silico* approach to correlate the drug-likeness" Sanctioned by Department of Science & Technology, State Science Council, West Bengal, Kolkata; Scheme No. Scheme No. 228/1(10)/(Sanc.)/ST/P/S&T/9G-16/2012.
- (c) "Micro-structure controlled photochromism of azoimidazoles: Effect of micelle, reverse micelle, emulsifiers, nanocarbons (NCs) and nanoparticles (NPs)" Sanctioned by the Council of Scientific and Industrial Research, New Delhi; Sanction No. 01(2731)/13/EMR-II.

**Prof. Nitin Chattopadhyay**

Departmental/Individual Name of the Project Project no. Funding Agency  
Individual Photophysics of 1,2-dicarbonyls : Is S<sub>2</sub> emission a common phenomenon for this class of compounds? 01(2807)/14/EMR-II. C.S.I.R., Govt. India.  
Individual Unusual fluorescence anisotropies of probes in protic solvents: A new horizon towards solvation. EMR/2016/001087. D.S.T., Govt. India.

**Dr. Partha Roy**

- (i) DST, New Delhi (SERB) sponsored project (2014-17), sanction amount: Rs. 22.7 lac; Title: Development of New Fluorescent Chemosensors for Zinc(II); sanction order no. SB/FT/CS-163/2012 dated 23/05/2014.
- (ii) DST, New Delhi (SERB) sponsored project (2013-17), sanction amount: 42 lac;  
**Title :** Development of transition metal complexes as catalysts for C-H activation and C-C bond formation: homogeneous vs. heterogeneous media; sanction order no. SB/EMEQ-065/2013 dated 09/07/2013.

**Prof. Kajal Krishna Rajak**

Sl. No.	Title of the Project	Funding Agency	PI
1	Coordination Chemistry of Rhenium and Zinc incorporating Polydentate Ligands: Synthesis, Structure, Characterization, Optical Properties, Reactivity and DFT Studies	SERB, New Delhi.	Prof. Kajal Krishna Rajak
2	Chemistry of Rhenium Incorporating Polydentate Ligands: Synthesis, Characterization, Optical Properties and DFT Studies.	DST, Govt of West Bengal.	Prof. Kajal Krishna Rajak

**Dr. Suman Das**

UGC Sponsored Major Project entitled "Binding of flavanoids to duplex and triplex nucleic acid structures: Biophysical and thermodynamic approach" MRP-MAJOR-CHEM-2013-37991; UGC Reference No. F. 43-243/2014(SR), UGC, Govt. of India.

**Dr. Arup Gayen**

Individual centric DST SERB sponsored project "Tailored nanostructure and nanocomposite oxide materials for steam and dry reforming of methane" (File No. EMR/2016/001811 dated 26.12.2016)

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**Dr. Amrita Saha**

Project entitled "Design and Synthesis of organic Fluorescent Probes for Detection of Zinc (II) Ion", DST, SERB, India (Sanction No. SB/FT/CS-102/2014, dated-18.07.2015).

**Prof. Mahammad Ali**

Design and Synthesis of fluorescent molecular sensors for heavy metal ion recognition. DST New Delhi. ~43L 2013-16. Completed

Copper Complexes in Biomimetics and Oxidation Catalysis. DST West Bengal ~12L 2016-18. Ongoing

**Dr. Tapan Kumar Mondal**

- i. Novel Transition Metal Complexes with Redox Noninnocent Ligands: Spectroelectrochemistry, Electron Distribution and Reactivity (SERB, New Delhi) (No. SB/EMEQ-242/2013; Project amount: Rs. 46,50,000/-; Present status: Ongoing).
- ii. Novel cyclometalated complexes of platinum group metals: Structure, electroluminescence and catalytic aspects (SERB, New Delhi) (No. YSS/2015/001533; Project amount: Rs. 31,91,250/-; Present status: Ongoing).
- iii. Development of new optical and electrochemical sensors for efficient detection of metal ions (CSIR, New Delhi) (No. 01(2831)/15/EMR-II); Project amount: Rs. 6,00,000/-; Present status: Ongoing).

**Dr. Debajyoti Ghoshal**

Sl. No.	Departmental/ Individual Name of Project	Funding Agency
1.	Individual : Design strategies of macrocyclic ligand based self assembly of d <sup>10</sup> metal system: photoluminescence property and biological activity.	DRDO
2.	Individual : Design of metal organic frameworks with carbon dioxide-philic core and hydrophobic antenna for the selective adsorption of carbon dioxide.	SERB

**Dr. Saurabh Das**

Name of the Project: Exploration of small hydroxy-9, 10-anthraquinones and their metal complexes as effective anticancer agents. Funding Agency: Department of Science & Technology, Govt. of W.B. [794(Sanc.)1(10) ST/P/S&T/9G-23/2013].

Name of the Project: Synthesis, characterization, DNA binding of 5-nitro-imidazole based transition metal complexes to investigate their radiosensitizing attributes.

Funding Agency: UGC-DAE CSR, KC Collaborative Research Scheme (Research Project) [UGC-DAE-CSR-KC/CRS/13/RC03/0886RCS].

**Dr. Soumen Ghosh**

Name of the Project - Colloidal and Solution Behaviour ..... Solvent

Funding Agency - Council of Scientific and Industrial Research, Govt. of India

**Prof. Sujoy Baitalik**

Sl No. Title of the Project

1. Platinum Metal-based Light-Harvesting Assemblies with Polyheterocyclic Ligands: Designing of Functional Materials  
Amount sanctioned : 46.9 L Funding Agency : DST-SERB (File No. EMR/2015/001163  
Duration : 30.1.2016 -ongoing

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Sl No. Title of the Project

2. Synthesis and Properties of Multimetallic Ruthenium(II) and Osmium (II) Complexes of Tridentate ligands : The Quest for Long Lived Excited State at Room Temperature  
Amount sanctioned : 12.0 L Funding Agency : CSIR (Project No: 01(2766)/13/EMR-II)  
Duration : 01.11.2013 -31.12.2016(Completed)

**3. A. Invited lectures Delivered/ Session Chaired:**

**Prof. Samaresh Bhattacharya**

Delivered Invited Lectures at: Ghatal College; 5<sup>th</sup> Symposium on Advanced Biological Inorganic Chemistry (SABIC-2017); Belur Vidyamandira; Visva Bharati; Gangarampur College; Kalyani University; University of Calcutta.

Session Chaired at: IISER-Kolkata; St. Xavier's College – Kolkata.

**Dr. Soumen Ghosh**

- i) Invited Speaker in the Dept of Chemical Engineering, National Cheng Kung University, Taiwan as well as at the 2016 Annual Meeting of Taiwanese Colloid and Interface Society, Dept. of Chemical Engineering, National Taiwan University, Taipei, **Taiwan** from June 20 - 26, 2016.
- ii) Acting as a Chairperson in one day State Level Seminar on “Trends in Surface Science and Related Areas (TSSRA-XIII)”, August 20, 2016 held in Dept. of Chemistry, Sree Chaitanya College, Habra – 743263.

**Prof. Nitin Chattopadhyay**

Name of the Teacher/Type of Participants/Name of the Seminar/Conference/Place/Duration  
Teachers, research scholars and P.G. students, Science Academies' Lecture workshop on “Chemistry and Biology Interface”, Vidyasagar University, April 21-22, 2016

**Prof. Swapan Kumar Bhattacharya**

Chaired a session of National Seminar on ‘Emerging Trends in Chemistry’ on 15<sup>th</sup> February, 2017 organised by Department of Chemistry, Jadavpur University, Kolkata-700032, WB, India.

**Prof. Chittaranjan Sinha**

- (a) Delivered an Invited Talk in 6<sup>th</sup> International Science Conference held on 23-25<sup>th</sup> December, 2016 in New Delhi jointly organised by Dr. R. M. L. Hospital & PGIMER, New Delhi and World Science Congress. Title of Talk : Design of Chemosensor and Applications of Fluorescence Analysis of Zn<sup>2+</sup>.
- (b) Chairman of a session of National Conference on Recent Development & Applications in Chemical Sciences (RDACS-2016) on 20-21 May, 2016 jointly organised by Department of Chemistry, NIT-Agartala.
- (c) Delivered an Invited Talk Speaker on “Fluorenyl Schiff base serves as AIEE turn-on fluorescent probe for Al<sup>3+</sup> and photovoltaic effect” in National Conference on Recent Development & Applications in Chemical Sciences (RDACS-2016) on 20-21 May, 2016 jointly organised by Department of Chemistry, NIT-Agartala.
- (d) Advisory Member of Golden Jubilee year celebration of Dept. of Chemistry, Utkal Univ and National Conference on ‘RECENT ADVANCES IN MATERIALS CHEMISTRY’ (RAMC 2017), February 24-26, 2017.

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- (e) Advisory Member and Keynote Speaker of The National Seminar on - "Recent Advances on Multifunctional Material (RA2M-2017)" organized by Haldia Institute of Technology, Purba Medinipur held on 3-4 Feb. 2017.

**Dr. Partha Pratim Parui**

DBT sponsored 3-day seminar at Moulana Azad College on 28-30th March, 2017. Topic of Invited lecture: Bio-thiols detection: application in living species

**Prof. Subratanath Koner**

"Heterogeneous Catalysis over Porous Metal Organic Framework", at Inorganic and Physical Chemistry Department, Ghent University, Belgium.

**Dr. Suman Das**

- Invited Lecture delivered in the "International Conference on Emerging Trends in Nanomaterials Science & Technology (ICETNMST - 2017)": during 4 – 6 January 2017 organized by Science & Humanities Department, National Institute of Technology Nagaland.
- Invited Lecture delivered in Annual Seminar organized by the Department of Chemistry and Department of Food and Nutrition of Behala College, Kolkata on 28<sup>th</sup> January, 2017.

**Dr. Arup Gayen**

- Invited lecture in the National Seminar on "Emerging trends in Chemistry" organized by the Department of Chemistry, Jadavpur University held on February 15, 2017.
- Invited lecture in the National Conference on "Recent trends in Chemistry" held at the Department of Chemistry, Sikkim Manipal Institute of Technology, February 17-18, 2017.

**Dr. Debajyoti Ghoshal**

Name of the Paper Presented/Name of the Seminar/Place/Duration

Design of coordination polymers: From porous material to electronic devices. Global Congress & Expo on Material Science & Nanoscience, Dubai, UAE. 24-26 October, 2016

Design of mixed ligand coordination polymer: From selective gas adsorbing materials to electronic devices. 5th Symposium on Advanced Biological Inorganic Chemistry, IACS, Kolkata-32. 7-11 January, 2017

X-ray crystallography: A pathfinder for the exploration of chemical and physical property of coordination polymers. Special Winter School in Chemical Science and Technology at UGC-HRDC section, University of Calcutta. University of Calcutta, 4<sup>th</sup> February, 2017

**Dr. Saurabh Das**

- Type of Participation: Invited Talk

Name of the Seminar/Conference: Trends in Surface Science and Related Areas

Organizer: Indian Society for Surface Science & Technology and Sree Chaitanya College, Habra, North 24 Parganas. Date: August 20<sup>th</sup>, 2016.

- Type of Participation: Invited Talk

Name of the Seminar/Conference: 5<sup>th</sup> International Symposium on Advanced Biological Inorganic Chemistry (SABIC).

Organizer: Tata Institute of fundamental Research, Mumbai & Indian Association for the Cultivation of Science, Kolkata.

Place: Hotel Stadel, Yuva Bharati Krirangan, Salt Lake, Kolkata. Date: 7-11 January, 2017.



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**Prof. Sujoy Baitalik**

1. Delivered an invited lecture in a National Seminar on Recent Advances in Chemical Sciences and Applications organized by Department of Chemistry, Vidyasagar College for Women, University of Calcutta, Kolkata on January 6-7, 2017.
2. Delivered an invited lecture in UGC sponsored Special Winter School in Chemical Science and Technology at the University of Calcutta on February 7, 2017.
3. Delivered an invited lecture in a two day Symposium organized by Department of Inorganic Chemistry, Indian Association for the Cultivation of Science (IACS), Kolkata during March 07-08, 2017.
4. Chaired a session in a National Seminar on Current Recent Advances in Chemical Sciences and Applications organized by Department of Chemistry, Vidyasagar College for Women, University of Calcutta, Kolkata on January 6 and 7, 2017.

**B. Seminar/ Workshop / Conference/ Symposium Attended:**

**Prof. Umesh Chandra Halder**

- i) "National Seminar on Advances in Chemical Science and Technology "Organized by Jadavpur University and Bankim Sardar College ( held on December 12 & 13, 2016)— Attended
- ii) National Seminar on "Emerging Trends in Chemistry" organized by Department of Chemistry, Jadavpur University, Kolkata-700032 (February 15, 2017) — Attended and presented two posters.

Title of the Posters:

- i) Microwave induced conformational change and aggregation of bovine  $\alpha$ -lactoglobulin.— Jishnu Chakraborty and Umesh Chandra Halder.
- ii) Multispectroscopic analysis and molecular modeling to investigate the binding of  $\alpha$ -lactoglobulin with curcumin derivatives.—S. Maity, S. Pal, S. Sardar, H. Parvej and U. C. Halder.

**Dr. Tanurima Bhaumik**

- i) Attended One day national seminar on "Recent advances in Life Science in the Light of Chemistry" organized by Department of Chemistry, Bethune College, Kolkata 700006 in collaboration with Royal Society of Chemistry on 9th September, 2016.
- ii) Poster presented in the 53<sup>rd</sup> Annual Convention of National Chemists 2016 (national conference) organized by Indian Chemical Society held at the GITAM University, Visakhapatnam 530045, Andhra Pradesh during December 27-29, 2016.
- iii) Poster presented in National Seminar on Emerging Trends in Chemistry 2017 organized by the Department of Chemistry, Jadavpur University on February 15, 2017.

**Prof. Chittaranjan Sinha**

- (a) Poster entitled, "Cyclodextrin encapsulated photoisomerisation of 1-alkyl-2- $\{(o$ -thioalkyl)phenyl-azo}imidazoles" by Debashis Mallick, Sayantan Pradhan, Chittaranjan Sinha\* presented in National Symposium on Recent Advances in Chemistry and Industry (2016, with special emphasis on Pharmaceutical Industry) held on 02-03 August, 2016 organised by the Indian Chemical Society in Meghnad Saha Auditorium, Rajabazar Science College, Kolkata.

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- (b) Invited Talk in the Department of Chemistry, Sant Gadge Baba Amravati University, Amravati in a workshop on "Photochemistry" during March 19 & 20, 2017.

**Dr. Soumen Ghosh**

National Seminar on "Emerging Trends in Chemistry", February 15, 2017 organized by Department of Chemistry, Jadavpur University, Kolkata – 700032.

**Dr. Chandan Kumar Mondal**

Emerging Trends in Chemistry, Department of Chemistry, Jadavpur University, on 15/2/2017.

**Dr. Partha Roy**

- (i) Poster Presentation on, "A ratiometric chemosensor for Al<sup>3+</sup> based on naphthalene platform: interpretation of molecular logic gates" by A. Roy, S. Dey, S. Halder, A. Bhattacharjee, D. Maity, A. Hazra and **P. Roy**, Emerging Trends in Chemistry held on February 15, 2017, J. U.
- (ii) Poster Presentation on, "A robust fluorescent chemosensor for aluminium ion detection based on a Schiff base ligand with an azo arm and application in a molecular logic gate" by A. Saha and **P. Roy**, 53rd Annual Convention of Chemists, held on December 27-29, 2016, GITAM University, Visakhapatnam.

**Dr. Shouvik Chattopadhyay**

Name of the poster Presented: Synthesis, Characterization, DFT study, Catechol oxidase and phenoxazinone synthase like activities of Mn(IV) and Co(III) Schiff base complexes

Name of the Seminar: Emerging Trends in Chemistry held at Dept. of Chemistry, J.U. on 15.2.17.

**Prof. Gourhari Maiti**

National seminar on Emerging Trends in Chemistry, February 15, 2017 and presented a poster P-13, organized by Department of Chemistry, Jadavpur University.

**Dr. Partha Pratim Parui**

Attended two national and one International seminar

**Prof. Kajal Krishna Rajak**

Sabic-2017, 5<sup>th</sup> symposium on Biological Inorganic Chemistry, January 7-11, 2017, The Stadel (Salt Lake Stadium), Kolkata, India.

**Prof. Rina Ghosh**

1. "Chemistry of Functional Materials of Current Interest (CFMCI-2016)" Organized by Department of Chemistry, J.U. on 16<sup>th</sup> March, 2016.
2. "19<sup>th</sup> CRSI National Symposium in Chemistry (CRSI NSC-19) & CRSI-GDChAngewandte Symposium" Organized by Department of Chemistry, University of North Bengal, West Bengal, India on 13-16 July, 2016. (Presented a paper as poster entitled "Convergent synthesis of the pentasaccharide related to *Escherichia coli* O120 based on sequential one-pot glycosylation reactions").
3. "CARBO-XXXI International Conference on "New Frontiers in Carbohydrate Chemistry & Biology" jointly organized by Department of Chemistry, University of Delhi and Association of Carbohydrate Chemists and Technologists, India (ACCTI) on 14<sup>th</sup> – 16<sup>st</sup> November, 2016 at University of Delhi, Delhi, India. (Presented a paper as poster

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entitled “Convergent synthesis of the tetrasaccharide repeating unit related *Bacillus anthracis*.”).

4. “Emerging Trends in Chemistry” Organized by Department of Chemistry, J.U. on 15<sup>th</sup> February, 2017. (Presented a paper as poster entitled “Efficient Perimidine based selective colorimetric and fluorescence chemosensor of Cu(II) ion”).
5. “CARBO-XXXI International Conference on “New Frontiers in Carbohydrate Chemistry & Biology” jointly organized by Department of Chemistry, University of Delhi and Association of Carbohydrate Chemists and Technologists, India (ACCTI) on 14–16 November, 2016 at University of Delhi, Delhi, India. (Presented a paper as poster entitled “Expedition route towards the synthesis of the tetrasaccharide repeating unit of *Streptococcus pneumonia* serotype 6A.”).

#### Dr. Suman Das

- a. Attended the “International Conference on Emerging Trends in Nanomaterials Science & Technology (ICETNMST - 2017)”: during 4–6 January 2017 organized by Science & Humanities Department, National Institute of Technology Nagaland.
- b. Attended the Annual Seminar organized by the Department of Chemistry and Department of Food and Nutrition of Behala College, Kolkata on 28<sup>th</sup> January, 2017.
- c. Attended the National Seminar on ‘Emerging trends in Chemistry’, at Jadavpur University on February 15, 2017.

#### Dr. Arup Gayen

Presented a poster in the National Seminar on “Recent Trends in Chemistry Research” organized by the Department of Chemistry, Visva-Bharati, Santiniketan during March 25-26, 2017.

#### Dr. Amrita Saha

- A. 53rd Annual Convention of Chemists, GITAM University, December 27–29, 2016.
- B. National Seminar on “Emerging Trends in Chemistry”, Jadavpur University, 15<sup>th</sup> Feb 2017.

#### Prof. Mahammad Ali

International lecture 2016 CAS Seminar, Dept. of Chem., J.U.

National lecture 2016 Calcutta University

National lecture 2016 Vidyasagar University

International lecture 2016 Indian Chemical Society, GITAM University, Visakhapatnam

National Poster Presented 2016 Gurudas College

International Poster Presented 2017 Manipal University

#### Prof. Swapan Kumar Bhattacharya

National Seminar on ‘Emerging Trends in Chemistry’ on 15<sup>th</sup> February, 2017 organised by Department of Chemistry, Jadavpur University, Kolkata-700032.

#### Dr. Tapan Kumar Mondal

- i. Three Day National Symposium on Chemistry and the Environment & National Convension of Chemistry Teachers (NCCT-2016), October 21-23, 2016, organized by Department of Chemistry, Raja N. L. Khan Women’s College, Midnapore

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Oral Presentation: "Design and synthesis of fluorescent chemosensors for efficient detection of Zinc(II): Application in live cell imaging".

- ii. 5<sup>th</sup> Symposium on Advanced Biological Inorganic Chemistry (SABIC 2017) held in Kolkata, January 7-11, 2017.

Poster presentation: "DESIGN AND SYNTHESIS OF NOVEL CYCLOMETALATED COMPLEXES OF RHODIUM(III): APPLICATION AS BIOMARKER".

- iii. International Symposium on Facets of Chemistry in Biology (FOCB-II), January 12, 2017; Organized by Department of Chemistry St. Xavier's College, Kolkata.

**Dr. Umasish Jana**

National Seminar on Emerging Trends in Chemistry, 15<sup>th</sup> February, 2017, Department of Chemistry, Jadavpur University.

**Mr. Bibhuti Bhushan Show**

National Attended 2016, National Seminar on Chemistry of functional Materials of Current Interest. Triguna Sen auditorium, Dept. of Chemistry, JU, under CAS II program

National Presented Papers 2016, 18th CRSI National Symposium in Chemistry, Institute of Nanoscience and technology and Punjab University, 05-07 February

National Presented Papers 2017, Emerging trends in Chemistry (ETC-2017) Under Centre for Advanced Studies II Program. Department of Chemistry, Jadavpur University, Kolkata

**Debajyoti Ghoshal**

Name of the Seminar

19th CRSI National Symposium in Chemistry. Place : University of North Bengal  
Duration : 14-16 July, 2016

Emerging Trends in Chemistry Place : Jadavpur University Duration : February 15, 2017

**Prof. Sujoy Baitalik**

1. Participated and presented a poster in the 5<sup>th</sup> International Symposium on Advanced Biological Inorganic Chemistry held in Kolkata during January 7-11, 2017.
2. Participated and presented a poster on a National Seminar on Emerging Trends in Chemistry organized by the Department of Chemistry, Jadavpur University, Kolkata, on February 15, 2017.

**C. Seminar/ Workshop Conference / Symposium Organized:**

**Prof. Chittaranjan Sinha**

Convener & Secretary, 6<sup>th</sup> International Science Conference on the title "To Save the Earth, Environment and Health" on 23-25th December, 2016 in New Delhi jointly organised by Dr. R. M. L. Hospital & PGIMER, New Delhi and World Science Congress.

**Dr. Suman Das**

Organized the National Seminar on "Emerging trends in Chemistry", at Jadavpur University on Wednesday, February 15, 2017.

**Dr. Amrita Saha**

Acted as co-convener in National Seminar on "Emerging Trends in Chemistry", Jadavpur University, 15<sup>th</sup> Feb 2017.

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**Prof. Sujoy Baitalik**

Organized a National Seminar on Emerging Trends in Chemistry (ETC-2017) under Centre for Advanced Studies II Program at the Department of Chemistry, Jadavpur University, Kolkata, on February 15, 2017.

**D. Orientation Courses/ Refresher Courses Attended:**

**Dr. Partha Pratim Parui**

Refresher course on "Teacher Educator" at department of Philosophy, Jadavpur University

**Dr. Shouvik Chattopadhyay**

Title of the course Role of biotechnology in Pharmacy; Duration: 2 weeks; Place: Dept. of Pharma Tech., JU

**4. A. Books/ Monographs etc. Published:**

**B. Articles Published in Journals:**

**Prof. Kalyan Kumar Das**

1. Noncovalent interaction assisted fullerene for the transportation of some brain anticancer drugs: a theoretical study, P.N. Samanta and K. K. Das, *J. Mole. Graph. Modelling* 72 (2017) 187-200.
2. 5-aminolevulinic acid functionalized boron-nitride and carbon nanotubes as drug delivery vehicles for skin anticancer drug: a theoretical study, P.N. Samanta and K. K. Das, *RSC Advances* 6 (2016) 92547-92559.
3. Comparative QM/MM studies of H<sub>2</sub> adsorption on lithium doped single walled armchair and zigzag nanotubes: SiCNT, GeCNT, and SnCNT, P.N. Samanta and K. K. Das, *Int. J. Quant. Chem.* 116 (2016) 1467-1476.
4. Effects of spin-orbit coupling on the electronic states and spectroscopic properties of tellurium monoxide molecule – A theoretical study, S. Chattopadhyaya, A. Nath and K.K. Das, *Comput. Theoret. Chem.* 1084 (2016) 75-87.
5. Effects of spin-orbit coupling on the electronic states and spectroscopic properties of diatomic SeS, S. Chattopadhyaya, A. Nath and K.K. Das, *J. Phys. B: At. Mol. Opt. Phys.* 49 (2016) 065101.
6. Thiosemicarbazone based chemo and fluorogenic sensor for Zn<sup>2+</sup> with CHEF and ESIPT behaviours: computational studies and cell imaging application, R. Bhowmick, R. Alam, T. Mistri, K. K. Das, A. Katarkar, K. Chaudhuri and M. Ali, *RSC Advances* 6 (2016) 11388-11399.
7. Prediction of binding modes and affinities of 4-substituted-2,3,5,6-tetrafluorobenzene sulfonamide inhibitors to the carbonic anhydrase receptor by docking and ONIOM calculations, P.N. Samanta and K. K. Das, *J. Mole. Graph. Modelling* 63 (2016) 38-48.
8. QM/MM Study of the Interaction between Zigzag SnC Nanotube and Small Toxic Gas Molecules, P.N. Samanta and K. K. Das, *Int. J. Quant. Chem.* 116 (2016) 411-420.

**Prof. Samaresh Bhattacharya**

1. Formation of acetone thiosemicarbazone complex of ruthenium via usual chelation and unexpected fragmentation : Characterization and catalytic application, P. Dhibar, P. Paul

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and S. Bhattacharya, *J. Ind Chem. Soc.* 2016, 93, 781-788. (Invited paper for Prof. M. C. Chattopadhyaya 70<sup>th</sup> Birth Anniversary Issue)

2. Ruthenium Carbonyl Complexes with 4-R-Benzaldehyde Thiosemicarbazone as an Ancillary Ligand: Synthesis and, Structural, Spectral and Electrochemical Properties. R. Deb, P. Paul and S. Bhattacharya, *Proc. Natl. Acad. Sci., India, Sect. A Phys. Sci.* 2016, 86, 551-559. (Invited article for a thematic issue on "Organometallics")
3. Di-ruthenium complexes having diphosphines and carbonyls: Formation, structure, and catalytic hydrogenation of alkynes. Mukherjee, P. Paul and S. Bhattacharya, *J. Organomet. Chem.* 2017, 834, 47-57.

#### Prof. Soumen Ghosh

1. Enhanced efficiency in dye-sensitized solar cells based on mesoporous titanium phosphate photoanode, K.-H. Park, S. Mondal, S. Ghosh, S. Das, and A. Bhaumik, *Microporous and Mesoporous Materials* 225 (2016) 255-260.
2. Interaction of myoglobin with cationic and nonionic surfactants in phosphate buffer media, S. Mondal, M. L. Raposo, G. Prieto and S. Ghosh, *J. Chem. & Eng. Data* 61 (2016) 1221-1228.
3. Cholesterol Aided Micelle to Vesicle Transition of a Cationic Gemini Surfactant (14-4-14) in Aqueous Medium, S. Mondal, A. Pan, S. Das, S. P. Moulik and S. Ghosh, *RSC Advances* 6 (2016) 26019-26025.
4. Stability of curcumin in different solvent and solution media: UV-visible and steady-state fluorescence spectral study, S. Mondal, S. Ghosh and S. P. Moulik, *J. Photochem. & Photobiology B: Bio.* 158 (2016) 212-218.
5. Detailed characterization of Lysozyme (Lyz) - surfactant (SDDS) interaction and the structural transitions, B. Mandal, S. Ghosh and S. P. Moulik, *New J. Chem.* 40 (2016) 4617-4624.
6. Interaction of cationic gemini surfactant tetramethylene-1,4 bis(dimethyl tetradecylammonium bromide) with anionic polyelectrolyte sodium carboxymethyl cellulose, with two different molar masses, in aqueous and aquo-organic (isopropanol) media", S. Das, S. Mondal, and S. Ghosh, *RSC Advances* 6 (2016) 30795-30803.
7. Formation of oil/water interface by mixed surface active ionic liquid-ethoxylated alkyl ether: energetics, microstructures, solvation dynamics, and antimicrobial activity, K. Kundu, S. Bardhan, S. Ghosh, S. K. Saha and B. K. Paul, *Chemistry Select* 1 (2016) 6406-6421.
8. Interaction of a cationic surfactant with an oppositely charged polymer, S. Ghosh, A. Mal, T. Chakraborty, G. Chandra De and D. G. Marangoni, *J. Surf. Sci. and Tech.* 32 (2016) 107-114.
9. Effect of curcumin on the binding of cationic, anionic and nonionic surfactants with myoglobin, S. Mondal and S. Ghosh, *J. Mole. Struc.* 1134 (2017) 292-297.
10. Physicochemical responses of lysozyme on interaction with the ionic liquid (IL), 1-butyl-3-methylimidazolium tetrafluoroborate [BMIM][BF<sub>4</sub>] in aqueous phosphate buffer medium, B. Mandal, S. Ghosh and S. P. Moulik, *Colloids and Surfaces A: Physicochem. & Eng. Aspects* 522 (2017) 266-271.

#### Dr. Subratanath Koner

1. D. Saha, D. K. Hazra, T. Maity and S. Koner, Heterometallic MOFs that Catalyze Two Different Reactions Sequentially, *Inorg. Chem.* 55, 5729-5731 (2016).



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2. T. Maity, S. Bhunia, S. Das and S. Koner, Heterogeneous O arylation of nitroarenes with substituted phenols over copper immobilized mesoporous silica catalyst, *RSC Adv.* **6**, 33380 - 33386 (2016).
3. S. Das, T. Maity and S. Koner, Heterogeneous sequential N arylation of N heterocycles over copper anchored mesoporous silica catalyst, *Appl. Catal. A: Gen.* **513**, 53–66 (2016).

**Prof. Chittaranjan Sinha**

- (a) U. Panda, S. Roy, D. Mallick, P. Dalapati, S. Biswas, N. B. Manik, A. Bhattacharyya, C. Sinha, "Aggregation induced emission enhancement of pyrene-appended Schiff base luminophore and its photovoltaic effect", *J. Luminescence* **175**(2016)44–49.
- (b) C. Patra, A. K. Bhanja, C. Sen, D. Ojha, D. Chattopadhyay, A. Mahapatra, C. Sinha, "Vanillinyl thioether Schiff base as a turn-on fluorescence sensor to Zn<sup>2+</sup> ion with living cell imaging" *Sensors and Actuators, B: Chemical*, **228** (2016) 287-294.
- (c) Datta, P., Sardar, D., Panda, U., Halder, A., Manik, N. B., Chen, C.-J., Sinha, C. "Coumarinyl azoimidazolyl complexes of osmium(II) hydridocarbonyls: Spectroscopic and structural characterization, oxidation catalysis, photovoltaic effect and density functional theory computation" *Applied Organometallic Chemistry*, 2016, **30**, 323–334.
- (d) C. Sen, D. Mallick, C. Patra, S. Roy, R. K. Sinha, R. Ghosh, J. A. Mondal, D. K. Palit and C. Sinha, "Spectroscopic characterization, photochromism and mesomorphism of cadmium(II)-1-alkyl-2-(arylo)imidazole complexes and DFT correlative studies" *Polyhedron* **117** (2016) 463–477.
- (e) U. Panda and C. Sinha, "A novel adenine appended Fluorescent chemosensor for Citrate and Phosphate ion sensing in aqueous medium" *J. Indian Chem. Soc.*, 2016, **93**, 703-709.
- (f) "In silico approach to the screening of sulfonamides as anti-tuberculosis drugs: future perspectives" by S. Pradhan and C. Sinha, *J. Ind. Chem. Soc.*, 2016, **93**, 1067-1084.
- (g) "Imine functionalized thioether Zn(II) turn-on fluorescent sensor and selective sequential logic operations with H<sub>2</sub>PO<sub>4</sub><sup>-</sup>, DFT computation and live cell imaging" by C. Patra, A. K. Bhanja, C. Sen, D. Ojha, D. Chattopadhyay, A. Mahapatra, and C. Sinha, *RSC Advances*, 2016, **6**, 53378 – 53388.
- (h) "The structural characterization and biological activity of sulfamethoxazolyl-azo-p-cresol, its copper(II) complex and their theoretical studies, N. Sahu, D. Das, S. Mondal, S. Roy, P. Dutta, N. Sepay, S. Gupta, E. Lo´pez-Torres and C. Sinha, *New J. Chem.*, 2016, **40**, 5019-5031.
- (i) "A New CuII Coordination Polymer: Structural Elucidation, EPR and Sensing Studies for Detection of Volatile Organic Solvents", K. Das, S. Mendiratta, A. Datta, M. J. Gajewska, E. Garribba, T. Akitsu, and C. Sinha\*, *Chemistry Select*, **1** (2016) 2192-2198.
- (j) "A rare doubly nitrate and phenoxido bridged trimetallic CuII complex: EPR, antiferromagnetic coupling and theoretical rationalization" A. Datta, K. Das, S. B. Mane, S. Mendiratta, M. S. El Fallah, E. Garribba, A. Bauz´a, A. Frontera, C. Hung and C. Sinha, *RSC Adv.*, 2016, **6**, 54856–54865.
- (k) "Halogen...Halogen Interactions in the Supramolecular Assembly of 2D Coordination Polymers and the CO<sub>2</sub> Sorption Behavior" Ahmed, F.; Roy, S.; Naskar, K.; Sinha, C.; Alam, S.; Kundu, S.; Vittal, J.; Mir, M., *Crystal Growth & Design*. 2016, **16**, 5514"5519.
- (l) "Coumarinyl thioether Schiff base as turn-on fluorescent Zn(II) sensor and the complex as chemosensor for the selective recognition of ATP along with its application in live

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- cell imaging” by C. Patra, A. K. Bhanja, A. Mahapatra, S. Mishra, K. Das Saha and C. Sinha, *RSC Adv.*, 2016,6, 76505-76513.
- (m) “Structural elucidation, EPR and magnetic interpretation of lanthanide (Ln = La, Nd, Sm) compounds with 4,40-bipyridine and 2-sulfoterephthalate” by A. Datta, K. Das, S. Mendiratta, C. Massera, E. Garribba, J. Huang, S. B. Mane, C. Sinha , M. S. El Fallah, *Inorg. Chim. Acta* 453 (2016) 128–134.
- (n) “Effect of micelle environment on the photochromism of 1-alkyl-2- $\{(o\text{-thioalkyl})\text{phenylazo}\}$ imidazole” by U. Panda, S. Jana, B. K. Sarkar, C. Sinha and D. Mallick, *J. Ind. Chem. Soc.*, 93 (2016) 613-620.
- (o) “Cu(I)-N heterocyclic carbene complexes: Synthesis, catalysis and DFT studies” J. Dinda, G. Roymahapatra, D. Sarkar, T. K. Mondal, S. S. Al-Deyab, C. Sinha, W. Hwang, *J. Mol. Struct.* 1127 (2017) 449 – 456.
- (p) “Synthesis and spectral characterization of some mixed ligand complexes of Cu<sup>II</sup> containing NNS and NN/NO/OO chelating ligands”, S. N. Nandi , S. Roy, K. Das, A. Datta and C. Sinha , *J. Ind. Chem. Soc.*, 93 (2016) 1253-1260.
- (q) “Effect of aromatic alcohols and carboxylic acids on light induced isomerisation of 1-alkyl-2- $\{(o\text{-thioalkyl})\text{phenylazo}\}$ imidazole” B. Chowdhuri, B. K. Sarkar, C. Sinha and D. Mallick, *J. Ind. Chem. Soc.*, 93 (2016) 1175-1182.
- (r) “Cation dependent charge transport in linear dicarboxylate based isotypical 1D coordination Polymers”, F. Ahmed, J. Datta, B. Dutta, K. Naskar, C. Sinha, S. Mafiz Alam, S. Kundu, P. P. Ray\*and M. H. Mir, *RSC Adv.*, 2017, 7, 10369–10375.
- (s) “A rare cobalt(III) paramagnetic derivative incorporating 1-alkyl-2- $\{(o\text{-thioalkyl})\text{phenylazo}\}$ imidazole (SMeaiNEt): EPR, redox and magnetic interpretation” by **S. Nandi**, K. Das, A. Datta, S. Roy, E. Garribba, T. Akitsu, C. Sinha, *Inorg. Chim. Acta*, 462 (2017) 75 – 81.
- (t) “Aggregation induced emission enhancement (AIEE) of fluorene appended Schiff base : a turn on fluorescent probe for Al<sup>3+</sup>, and its photovoltaic effect” U. Panda, S. Roy, D. Mallick, A. Layek, P. P. Ray and C. Sinha\*, *J. Luminescence* 181(2017)56–62.
- (u) “Spectroscopic characterization, antimicrobial activity, DFT computation and docking studies of sulfonamide Schiff bases” S. Mondal, S. M. Mandal, T. K. Mondal, C. Sinha, *J. Mol. Struct.* 1127 (2017) 557 – 567.
- (v) “Cation dependent charge transport in linear dicarboxylate based isotypical 1D coordination polymers” by F. Ahmed, J. Datta, B. Dutta, K. Naskar, C. Sinha, S. M. Alam, S. Kundu, P. P. Ray, M. H. Mir, *RSC Advances*, 7 (2017) 10369-10375.

### Prof. Rina Ghosh

1. Expeditious synthesis of the tetrasaccharide cap domain of the *Leishmania donovani* lipopolysaccharide using one-pot glycosylation reactions. M. M. Mukherjee, N. Basu, R. Ghosh, *RSC Adv.* **2016**, 6, 45112.
2. Efficient one-pot per-O-acetylation–thioglycosidation of native sugars, 4,6-O-arylidation and one-pot 4,6-O-benzylidation–acetylation of S-/O-glycosides catalyzed by Mg(OTf)<sub>2</sub>, Mukherjee, M. M.; Basu, N. Chaudhury, A; Ghosh, R. *RSC Adv.* **2016**, 6, 109301.

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3. Iron(III) chloride modulated selective 1,2-*trans* glycosylation based on glycosyl trichloroacetimidate donors and its application in orthogonal glycosylation. M. M. Mukherjee, N. Basu and R. Ghosh, *RSC Adv.*, **2016**, 6, 105589.
4. A target oriented expeditious approach towards synthesis of certain bacterial rare sugar derivatives, A. Chaudhury, R. Ghosh, *Org. Biomol. Chem.*, **2017**, 15, 1444.

**Prof. Umesh Chandra Halder**

- 1) "Insight into the co-solvent induced conformational changes and aggregation of bovine  $\beta$ -lactoglobulin"- S. Pal, S. Maity, S. Sardar, J. Chakraborty, U. C. Halder, *International Journal of Biological Macromolecules* 84 (2016) 121-134.
- 2) "New insight into the alcohol induced conformational change and aggregation of the alkaline unfolded state of bovine b-lactoglobulin"- S. Maity, S. Sardar, S. Pal, H. Parvej, J. Chakraborty and U. C. Halder, *RSC Adv.*, 6 (2016) 74409-74417.
- 3) "Facile synthesis and characterization of beta lactoglobulin-copper nanocomposites having antibacterial applications"-S. sardar, S. Maity, S. Pal, H. Parvej, N. Das, N. Sepay, M. Sarkar and U. C. Halder, *RSC Advances*, 6 (2016), 85340-85346.
- 4) Multispectroscopic analysis and molecular modeling to investigate the binding of beta lactoglobulin with curcumin derivatives: S. Maity, S. Pal, S. Sardar, N. Sepay, H. Parvej, J. Chakraborty and U. C. Halder, *RSC Adv.*, 2016, 6, 112175-112183.
- 5) 'Curcumin inhibits the Al(III) and Zn(II) induced amyloid fibrillation of b-lactoglobulin in vitro': S. Pal, S. Maity, S. Sardar, H. Parvej, N. Das, J. Chakraborty and U. C. Halder, *RSC Adv.*, 2016, 6, 111299-111307.
- 6) "LC-MS/MS assay for quantitation of enalapril and enalaprilat in plasma for bioequivalence study in Indian subjects" D. Halder, S. Dan, M. M. Pal, E. Biswas, N. Chatterjee, P. Sarkar, U. C. Halder & T. K. Pal, *Future Sci. OA* (2017) 10.4155/fsoa-2016-0071.

**Prof. Nitin Chattopadhyay**

1. P. Kundu, D. Banerjee, G. Maiti, N. Chattopadhyay, Dehydrogenation induced inhibition of intramolecular charge transfer in substituted pyrazoline analogue, *Phys. Chem. Chem. Phys.* **2017**, 19, 11937.
2. P. Kundu, S. Ghosh and N. Chattopadhyay, Exploration of photophysics of 2,22 -pyridil at room temperature and 77 K: A combined spectroscopic and quantum chemical approach, *Photochem. Photobiol. Sci.*, **2017**, 16, 159.
3. S. Das and N. Chattopadhyay, Unconventional modulation of fluorescence anisotropy of 3-hydroxyflavone in cationic micelles, *Colloid Interface Sci. Commun.*, **2017**, 16, 10.
4. M. Afzal, S. Ghosh and N. Chattopadhyay, Relocation of a biological photosensitizer from a non-ionic micellar carrier to DNA: A multispectroscopic investigation, *Biophys. Chem.*, **2016**, 219, 75.
5. M. Afzal, S. Ghosh, S. Das and N. Chattopadhyay, Endogenous activation-induced delivery of a bioactive photosensitizer from a micellar carrier to natural DNA, *J. Phys. Chem. B*, **2016**, 120, 11492.
6. A. Tiwari, I. Mondal, S. Ghosh, N. Chattopadhyay and U. Pal, Fabrication of mixed phase TiO<sub>2</sub> heterojunction nanorods and their enhance photoactivities, *Phys. Chem. Chem. Phys.*, **2016**, 18, 15260.

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7. P. Kundu and N. Chattopadhyay, Photophysics of  $\alpha$ -fural at room temperature and 77 K: Spectroscopic and quantum chemical studies, *J. Chem. Phys.*, **2016**, *144*, 234317.

**Prof. Gourhari Maiti**

- a) Cascade Metathesis Reactions for the Synthesis of Taxane and Isotaxane Derivatives C. Ma, A. Letort, R. Aouzal, A. Wilkes, G. Maiti, L. J. Farrugia, L. Ricard, *Chemistry–A European Journal* 2016, *22*, 6891-6898.
- b) Impact of Structural Modification on the Photophysical Response of Benzoquinoline Fluorophores, P. Kundu, S. Ghosh, R. Karmakar, G. Maiti, N. Chattopadhyay *Journal of fluorescence*, 2016, *26*, 845-854.
- c) One-pot efficient pseudo five components synthesis of 4,4'-(arylmethylene)bis(3-methyl-1-phenyl-1H-pyrazol-5-ols) at room temperature assisted by  $K_2CO_3$ . D. Banerjee and G. Maiti, *Synth. Commun.* 2017, *47*, 1006-1012.

**Prof. Ambikesh Mahapatra**

C. Patra, A. K. Bhanja, C. Sen, D. Ojha, D. Chattopadhyay, **A. Mahapatra**, C. Sinha, Vanillinyl thioether schiff base as a turn-on fluorescence sensor to  $Zn^{2+}$  ion with living cell imaging. *Sensors and Actuators B* 228, 2016.

A. Kundu and **A. Mahapatra**, TX-100 reverse micelles as microreactors for alkaline hydrolysis of tris(2,2'-bipyridine) iron(II) complex. *Ind J Chem*, 55A, 2016.

S. Rudra, S. Dasmandal, C. Patra, A. Kundu and **A. Mahapatra\***, Binding affinities of Schiff base Fe(II) complex with BSA and calf-thymus DNA : Spectroscopic investigations and molecular docking analysis. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 166, 2016.

C. Patra, A. K. Bhanja, C. Sen, D. Ojha, D. Chattopadhyay, **A. Mahapatra** and C. Sinha\*, Imine-functionalized thioether Zn(II) turn-on fluorescent sensor and its selective sequential logic operations with  $H_2PO_4^-$ , DFT computation and live cell imaging. *RSC Adv*, 6, 2016.

S. Dasmandal, D. Bhattacharyya, S. Rudra, B. K. Patel and **A. Mahapatra\***, Spectroscopic investigation on interaction of Toluidine Blue/ AOT/  $\gamma$ -Cyclodextrin ternary system. *J Luminescence*, 179, 2016.

C. Patra, A. K. Bhanja, **A. Mahapatra**, S. Mishra, K. Das Saha and C. Sinha, Coumarinyl thioether Schiff base as a turn-on fluorescent Zn(II) sensor and the complex as chemosensor for the selective recognition of ATP, along with its application in whole cell imaging. *RSC Adv*, 6, 2016.

S. Rudra, S. Dasmandal and A. Mahapatra, Binding interaction of sodium-N-dodecanoyl sarcosinate with hemoglobin and myoglobin: Physicochemical and spectroscopic studies with molecular docking analysis. *J Colloid and Interface Sc*, 496, 2017.

**Prof. Chandan Kr. Mondal**

1. Theoretical study of Zeno and anti-Zeno effects on photodissociation dynamics: A model approach, B. Nath and C. K. Mondal, *J. Theor. Comput. Chem.* 2016, *15*, 1650070.

**Prof. Swapan Kumar Bhattacharya**

- 1) Palladium and palladiumcopper alloy nanoparticles as superior catalyst for electrochemical oxidation of methanol for fuel cell applications, S. Roy Chowdhury, P. Mukherjee, S. K. Bhattacharya, *Int. J. Hydrogen energy* 41 (2016) 17072-17083.

### Annual Report 2016-17

- 2) Improved and Synergistic Catalysis of Single-pot-synthesized Pt-Ni Alloy Nanoparticles for Anodic Oxidation of Methanol in Alkali, S. Banik, A. Mahajan, S. Roy Chowdhury, S. K. Bhattacharya, *RSC Advances*, 2016, 6, 92490 – 92501
- 3) Ultrasound assisted formation of reduced graphene oxide-copper (II) oxide nanocomposite for energy storage applications, D. Majumdar, N. Baugh, S. K. Bhattacharya, *Colloids and surfaces A: physicochemical and engineering Aspects*, 512(2017)158-170
- 4) Improved Catalysis of Green-Synthesized Pd-Ag Alloy-Nanoparticles for Anodic Oxidation of Methanol in Alkali, S. Roy Chowdhury, S. Ghosh, S. K. Bhattacharya, *ElectrochimActa* 225(2017)310-321.
- 5) Synthesis, characterisation and electrochemical studies of Co(III) complex of (E)-4-(2-(4-Methoxy phenyl) Diazenyl) Benzene 1,3 Diol including antibacterial activity, S. Maity, P. K. Saha, S. K. Bhattacharya, *J. Appl. Chem.*, 9,1,2016.
- 6) Green synthesis and characterization of polyvinyl alcohol stabilized palladium nanoparticles: Effect of solvent on diameter and catalytic activity, S. Roy Chowdhury, P. S. Roy, S. K. Bhattacharya, *Adv. Nat. Sci.: Nanosci. Nanotechnol.* 8 (2017) 025002
- 7) Synthesis, Characterization and Electrochemical Study of Hydroxy- Functionalized Graphene/MnO<sub>2</sub> Nanocomposite, D. Majumdar, N. Baugh, S. K. Bhattacharya, *Mat. Today Proc.* 3 (2016) 3872-3877.

#### Dr. Partha Roy

- (i) S. Dey, S. Sarkar, D. Maity and P. Roy, Rhodamine based chemosensor for trivalent cations: Synthesis, spectral properties, secondary complex as sensor for arsenate and molecular logic gates, *Sensors & Actuators B: Chemical*, 2017, 246, 518–534.
- (ii) S. Halder, J. Mondal, J. Ortega-Castro, A. Frontera and P. Roy, A Ni-based MOF for selective detection and removal of Hg<sup>2+</sup> in aqueous medium: a facile strategy, *Dalton Transactions*, 2017, 46, 1943–1950.
- (iii) P. Ghosh, P. Roy, A. Ghosh, S. Jana, N. C. Murmu, S. K. Mukhopadhyay, P. Banerjee, Explosive and pollutant TNP detection by structurally flexible SOFs: DFT-D3, TD-DFT study and in vitro recognition, *Journal of Luminescence*, 2017, 185, 272–278.
- (iv) S. Halder, P. Ghosh, C. Rizzoli, P. Banerjee and P. Roy, Nitroaromatic explosives detection by a luminescent Cd(II) based metal organic framework, *Polyhedron*, 2017, 123, 217-225.
- (v) S. Halder, A. Dey, J. Ortega-Castro, A. Frontera, P. P. Ray and P. Roy, Irradiation Specified Conformational Change in Small Organic Compound and Its Effect on Electrical Properties, *Journal of Physical Chemistry C*, 2016, 120, 25557-25563.
- (vi) S. Halder, M. Das, K. Ghosh, A. Dey, B. B. Show, P. P. Ray and P. Roy, Development of a new Schiff-base semiconducting material for thin film active device and analysis of its charge transport mechanism, *Journal of Materials Science*, 2016, 51, 9394–9403.
- (vii) A. Roy, S. Dey and P. Roy, A ratiometric chemosensor for Al<sup>3+</sup> based on naphthalene-quinoline conjugate with the resultant complex as secondary sensor for F<sup>-</sup>: interpretation of molecular logic gates, *Sensors & Actuators B: Chemical*, 2016, 237, 628-642.
- (viii) S. Halder, A. Bhattacharjee, A. Roy, S. Chatterjee and P. Roy, Chromogenic and fluorescence sensing of pH with a Schiff-base molecule, *RSC Advances*, 2016, 6, 39118–39124.



**Annual Report 2016-17**

- (ix) K. Ghosh, S. Dey, S. Halder, A. Bhattacharjee, C. Rizzoli and P. Roy, A turn-on fluorescent chemosensor for Zn<sup>2+</sup> ion: X-ray structure and application in cell imaging study, *Journal of Molecular Structure*, 2016, 1118, 325-334.

**Dr. Shouvik Chattopadhyay**

1. Synthesis, characterization and photocatalytic activity of a dinuclear thiocyanate bridged cadmium(II) Schiff base complex; S. Roy, K. Harms, S. Chattopadhyay, *Polyhedron* 127 (2017) 471-477.
2. Synthesis, Characterization, DFT Study, Catechol Oxidase and Phenoxazinone Synthase Like Activities of Two New Manganese(IV) Schiff base complexes, N. Sarkar, K. Harms, A. Bauzá, A. Frontera, S. Chattopadhyay, *Chemistry Select*, *Chemistry Select* 2 (2017) 2975 - 2984.
3. Estimation of conventional C-H... $\pi$  (arene), unconventional C-H... $\pi$  (chelate) and C-H... $\pi$  (thiocyanate) interactions in hetero-nuclear nickel-cadmium complexes with a compartmental Schiff base: Novel example of a diamine bridged hetero-polynuclear complex having NiO<sub>2</sub>Cd core; S. Roy, M. G. B. Drew, A. Bauzá, A. Frontera, S. Chattopadhyay, *Dalton Trans.*, 46 (2017) 5384-5397.
4. The crucial role of chelate-chelate stacking interactions in the crystal structure of a square planar copper(II) complex; S. Jana, S. Khan, A. Bauzá, A. Frontera, S. Chattopadhyay, *J. Mol. Struct.* 1127 (2017) 355-360.
5. Exploration of photocatalytic activity of an end-on azide bridged one-dimensional cadmium(II) Schiff base complex for the degradation of organic dye in visible light; S. Roy, K. Harms, A. Bauzá, A. Frontera, S. Chattopadhyay, *Polyhedron* 121 (2017) 199-205.
6. Synthesis, characterization and phenoxazinone synthase mimicking activity of cobalt(III) Schiff base complexes; K. Ghosh, K. Harms, S. Chattopadhyay, *Polyhedron* 123 (2017) 162-175.
7. Two new manganese(III) complexes with salicylaldimine Schiff bases: Synthesis, structure, self-assembly and phenoxazinone synthase mimicking activity; N. Sarkar, M. Das, S. Chattopadhyay, *Inorg. Chim. Acta* 457 (2017) 19-28.
8. Observation of  $\pi$ -hole interactions in the solid state structures of three new copper(II) complexes with a tetradentate N<sub>4</sub> donor Schiff base: Exploration of their cytotoxicity against MDA-MB 468 cells; S. Khan, A. A. Masum, M. M. Islam, M. G. B. Drew, A. Bauzá, A. Frontera, S. Chattopadhyay, *Polyhedron* 123 (2017) 334-343.
9. Copper(II) pseudohalide complexes with isomeric N<sub>2</sub>O donor Schiff base ligands: Synthesis, characterization and molecular dynamics simulations of interactions with DNA; S. Jana, R. C. Santra, A. Frontera, M. G. B. Drew, J. Ortega-Castro, D. Fernández, S. Das, S. Chattopadhyay, *Chemistry Select* 3 (2016) 448-455.
10. Importance of chelate-chelate stacking interactions in crystal structures of square pyramidal copper(II) complexes with two distinct chelating bidentate ligands; S. Bhattacharya, S. Roy, K. Harms, A. Bauzá, A. Frontera, S. Chattopadhyay, *Inorg. Chim. Acta* 442 (2016) 16-23.
11. Anion dependent supramolecular architectures in Cu(II) complexes containing N<sub>2</sub>O-donor Schiff-base and 4,4'-bipyridine ligands: Structural analyses and theoretical



**Annual Report 2016-17**

- studies; P. Bhowmik, L. K. Das, A. Bauzá, A. Frontera, S. Chattopadhyay, A. Ghosh, *Inorg. Chim. Acta* 448 (2016) 26-33.
12. A combined experimental and computational study of supramolecular assemblies in two photoluminescent cadmium(II) complexes with halosalicylaldehyde Schiff bases; S. Roy, A. Bauzá, A. Frontera, S. Chattopadhyay, *Inorg. Chim. Acta* 450 (2016) 321-329.
  13. Theoretical study on the degree of delocalization of unpaired spin in two mixed valence copper(II/I) complexes with isomeric chelating diamines and iodide; S. Jana, S. Bhowmik, K. Harms, A. Bauzá, A. Frontera, S. Chattopadhyay, *Inorg. Chim. Acta* 451 (2016) 16-22.
  14. A combined experimental and theoretical study on two new dinuclear cadmium(II) Schiff base complexes with selenocyanate- $\kappa$ -Se; S. Roy, A. Bauzá, A. Frontera, S. Chattopadhyay, *Inorg. Chim. Acta* 453 (2016) 51-61.
  15. Iodide-bridged dinuclear copper(I) complex with cyanopyrazine and its conversion into bis(tetrazolato)copper(II) complex via [3 + 2] cycloaddition: synthesis, structure and self-assembly; S. Jana, K. Harms, S. Chattopadhyay, *J. Iran. Chem. Soc.* 13 (2016) 1713-1721.
  16. Tetrazolate bridged dinuclear photo-luminescent zinc(II) Schiff base complex prepared via 1,3- dipolar cycloaddition at ambient condition; S. Bhattacharya, S. Roy, S. Chattopadhyay, *J. Coord. Chem.* 69 (2016) 915-925.
  17. A zinc(II) amidine complex: tandem synthesis, structure, and self assembly; S. Roy, S. Bhattacharya, S. Chattopadhyay, *J. Coord. Chem.* 69 (2016) 112-122.
  18. Three mononuclear octahedral cobalt(III) complexes with salicylaldehyde Schiff bases: Synthesis, characterization, phenoxazinone synthase mimicking activity and DFT study on supramolecular interactions; K. Ghosh, S. Roy, A. Ghosh, A. Banerjee, A. Bauzá, A. Frontera, S. Chattopadhyay, *Polyhedron* 112 (2016) 6-17.
  19. A combined experimental and theoretical study on supramolecular assemblies in octahedral cobalt(III) salicylaldehyde complexes having pendant side arms; K. Ghosh, A. Banerjee, S. Roy, A. Bauzá, A. Frontera, S. Chattopadhyay, *Polyhedron* 112 (2016) 86-95.
  20. Two new hetero-dinuclear nickel(II)/zinc(II) complexes with compartmental Schiff bases: Synthesis, characterization and self assembly; A. Bhattacharyya, S. Roy, J. Chakraborty, S. Chattopadhyay, *Polyhedron* 112 (2016) 109-117.

**Dr. Partha Pratim Parui**

1. A simple interfacial pH detection method for cationic amphiphilic self-assemblies utilizing a Schiff-base molecule, Y. Sarkar, S. Das, A. Ray, S. K. Jewrajka, S. Hirota and P. P. Parui, *Analyst*, 2016, **141**, 2030.
2. A ratiometric solvent polarity sensing Schiff base molecule for estimating the interfacial polarity of versatile amphiphilic self-assemblies, R. Majumder, Y. Sarkar, S. Das, S. K. Jewrajka, A. Ray and P. P. Parui, *Analyst (communication)*, 2016, **141**, 3246.
3. A unique cysteine selective water soluble fluorescent probe operable in multiple sensing cycles for the detection of biogenic cysteine in multicellular living species, S. Das, Y. Sarkar, R. Majumder, S. Mukherjee, J. Bandyopadhyay, A. Ray and P. P. Parui, *New J. Chem.*, 2017, **41**, 1488.

**Prof. Kajal Krishna Rajak**

1. A novel fluorene based “turn on” fluorescent sensor for the determination of zinc and cadmium: experimental and theoretical studies along with live cell imaging, S. Basu Roy, J. Mondal, A. R. Khuda-Bukhsh and K. K. Rajak, : *New J. Chem.*, 2016, 40, 959.
2. A quinoline appended naphthalene derivative based AIE active “turn-on” fluorescent probe for the selective recognition of Al<sup>3+</sup> and colourimetric sensor for Cu<sup>2+</sup>: Experimental and computational studies, S. Basu Roy and K. K. Rajak, *Journal of Photochemistry and Photobiology A: Chemistry* 2017, 332, 505
3. A turn-off fluorescence sensor for cyanide detection which in turn inhibit 2-way ESIPT investigated by experimental and theoretical study, S. Basu Roy, A. Maity and K. K. Rajak, *Inorganic Chemistry Communications* 2017, 76 , 81

**Dr. Suman Das**

1. Pradhan, AB, Bhuiya, S, Lucy, H. and Das, S. (2017) *Int. J. Biol. Macromol* 95, 177-174.
2. Bhuiya, S, Lucy, H. Pradhan, AB and Das, S. (2017) *Int. J. Biol. Macromol* 95, 177-174.
3. Guhathakurta, B, Pradhan, AB. Das, S. Bandyopadhyay, N., Lu, L., Zhu, M. and Naskar, JP (2017) *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 173, 15, 740-748.
4. Pradhan, AB, Bhuiya, S, Tiwari R, Lucy, H. and Das, S. (2017) *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy* 170, 89-96.
5. Lucy, H., Bhuiya, S, Tiwari R, Pradhan, AB and Das, S. (2016) *RSC Adv* 6, 83551–83562.
6. Bandyopadhyay, N., Pradhan, A. B., Das, S., Lu L., Zhu M., Chowdhury S., Naskar, J. P. (2016) *J. Photochem. Photobiol. B*, 160, 336-346.
7. Pradhan, A B, Mondal H K, Haque, L, Bhuiya, S and Das, S (2016) *Int. J. Biol. Macromol* 86, 345-51.
8. Haque, L, Pradhan, A B, and Bhuiya, S and Das, S (2016) *J. Luminescence*, 173, 44-51.

**Dr. Arup Gayen**

1. Micro Structural, Optical and Magnetic Properties of Co–SiO<sub>2</sub> Nanocomposite Synthesized by Sol–Gel Technique, M. Saha, S. Mukherjee, A. Gayen and S. Mukherjee, *J. Inst. Eng. India Ser. D*, 2017, 98, 91.
2. Albumin matrix assisted wet chemical synthesis of nanocrystalline MFe<sub>2</sub>O<sub>4</sub> (M= Cu, Co and Zn) ferrites for visible light driven degradation of methylene blue by hydrogen peroxide, M. Saha, S. Mukherjee, S. Kumar, S. Dey and A. Gayen, *RSC Adv.*, 2016, 6, 58125.

**Dr. Amrita Saha**

1. A new end-on (1,1) azido bridged [Zn<sub>2</sub>(L)<sub>2</sub>(Na)<sub>3</sub>]<sub>n</sub> 1D chain derived from a trinuclear zinc complex: syntheses, crystal structures, photoluminescence properties and DFT study, S. Banerjee, and **A. Saha**, *Journal of Coordination Chemistry*, 2016, 69, 3092-3106.
2. Exploration of unconventional p–hole and C–H/ H–C types of supramolecular interactions in a trinuclear Cd(II) and a heteronuclear Cd(II)–Ni(II) complex and experimental evidence for preferential site selection of the ligand by 3d and 4d metal ions, S. Banerjee, A. Bauzá, A. Frontera and **A. Saha**, *RSC Advances*, 2016, 6, 39376-39386.

### Annual Report 2016-17

3. A robust fluorescent chemosensor for aluminium ion detection based on a Schiff base ligand with an azo arm and application in a molecular logic gate, S. Banerjee, Paula Brandão and **A. Saha**, *RSC Advances*, 2016, 6, 101924-101936.
4. Anion-dependent structural diversity of cadmium(II) complexes: synthesis, crystal structures, luminescence properties, and unusual C-H/ó supramolecular interactions involving ó-aromatic M<sub>2</sub>X<sub>2</sub> cores, N. Barman, S. Banerjee, P. Brandão, A. Bauzá, A. Frontera and **A. Saha**, *Journal of Coordination Chemistry*, 2016, 69, 1188-1205.

#### Prof. Mahammad Ali

1. A novel three-input monomolecular logic circuit on a rhodamine inspired bio-compatible bi-compartmental molecular platform, T. Mistri, R. Bhowmick, A. Katarkar, K. Chaudhuri, M. Ali, *Journal of Luminescence*, 2017, 185, 228.
2. Two [Mn<sub>3</sub>(μ<sub>3</sub>-O)]<sup>7+</sup> based Single Chain Magnets with different solvent ligation, M. Dolai, H. A. Molla, G. Rogez, M. Ali, *Polyhedron*, 2017, 127, 248.
3. A Smart Molecule for Selective Sensing of Nitric Oxide: Conversion of NO to HSNO; Relevance of Biological HSNO Formation, A. S. M. Islam, R. Bhowmick, K. Pal, A. Katarkar, K. Chaudhuri, M. Ali, *Inorganic Chemistry*, 2017, 56, 4324.
4. Oxime Based Selective Fluorescent Sensor for Arsenate Ion in a Greener Way with Bio-Imaging Application, M Dolai, A Rabiul, A Katarkar, K Chaudhuri, Ali Mahammad, *Analytical Sciences*, 2017, 32, 1295.
5. Synthesis, structural characterization and DFT calculation on a square-planar Ni(II) complex of a compartmental Schiff base ligand, S. Biswas, M. Dolai, A. Dutta, M. Ali, *J. Mol. Struct.*, 2016, 688, 1125.
6. Hydrothermal synthesis of two supramolecular inorganic-organic hybrid phosphomolybdates based on Ni(II) and Co(II) ions: structural diversity and heterogeneous catalytic activities, L. Paul, M. Dolai, A. Panja and M. Ali, *New J.Chem.*, 2016, 40, 6931.
7. A novel 8-hydroxyquinoline-pyrazole based highly sensitive and selective Al(III) sensor in a purely aqueous medium with intracellular application: experimental and computational studies, A. S. M. Islam, R. Bhowmick, H. Mohammad, A. Katarkar, K. Chaudhuri and M. Ali, *New J. Chem.*, 2016, 40, 4710.
8. Functionalized SBA-15 supported nickel (II)-oxime-imine catalysts for liquid phase oxidation of olefins under solvent-free conditions, L. Paul, B. Banerjee, A. Bhaumik, M. Ali, *J. Solid State Chemistry*, 2016, 237, 105.
9. Two new mononuclear cobalt(II) complexes of pyrazole-based ligands: synthesis, structures and magnetic studies, A. Jana, M. Dolai, B. K. Shaw, S. K. Saha, M. Ali, *Transition Met. Chem.* DOI 10.1007/s11243-016-0029-4, 2016, 41, 347.
10. Synthesis, structure, catalytic and magnetic properties of a pyrazole based five coordinated di-nuclear cobalt (II) complex, R. Alam, K. Pal, B.K. Shaw, M. Dolai, N. Pal, S.K. Saha, M. Ali, *Polyhedron*, 2016, 106, 84.
11. ESIPT blocked CHEF based differential dual sensor for Zn<sup>2+</sup> and Al<sup>3+</sup> in a pseudo-aqueous medium with intracellular bio-imaging applications and computational studies, R. Alam, T. Mistri, R. Bhowmick, A. Katarkar, K. Chaudhuri, M. Ali, *RSC Advances*, 2016, 6, 1268.

**Annual Report 2016-17**

12. Surfactant modulated aggregation induced enhancement of emission (AIEE)—a simple demonstration to maximize sensor activity, R. Bhowmick, A.S.M. Islam, A. Katarkar, K. Chaudhuri, M. Ali, *Analyst*, 2016, 141, 225.
13. A rhodamine embedded bio-compatible smart molecule mimicking a combinatorial logic circuit and 'key-pad lock' memory device for defending against information risk, T. Mistri, R. Alam, R. Bhowmick, A. Katarkar, K. Chaudhuri, M. Ali, *New J. Chem.*, 2016, 40, 330.
14. A thiosemicarbazone based chemo and fluorogenic sensor for Zn<sup>2+</sup> with CHEF and ESIPT behaviour: computational studies and cell imaging application, R. Bhowmick, R. Alam, T. Mistri, K.K. Das, A. Katarkar, K. Chaudhuri, M. Ali, *RSC Advances*, 2016, 6, 11388.

**Dr. Tapan Kumar Mondal**

1. S. Biswas, D. Sarkar, P. Roy, T. K. Mondal, Synthesis and characterization of a ruthenium complex with bis (diphenylphosphino)propane and thioether containing ONS donor ligand: Application in transfer hydrogenation of ketones, *Polyhedron* 131 (2017) 1-7.
2. S. Biswas, P. Roy, T.K. Mondal, Synthesis of palladium(II) complex with NNS donor Schiff base ligand via C-S bond cleavage: X-ray structure, electrochemistry and DFT computation, *J. Mol. Struct.* 1142 (2017) 110-115.
3. D. Sarkar, P. Ghosh, S. Gharami, T.K. Mondal, N. Murmu, A novel coumarin based molecular switch for the sequential detection of Al<sup>3+</sup> and F<sup>-</sup>: Application in lung cancer live cell imaging and construction of logic gate, *Sens. Actuators, B* 242 (2017) 338-346.
4. D. Ganguly, C. K. Jain, R. C. Santra, S. Roychoudhury, H. K. Majumder, T. K. Mondal, S. Das, Anticancer Activity of a Complex of Cu<sup>II</sup> with 2-(2-hydroxyphenylazo)-indole-3'-acetic Acid on three different Cancer Cell Lines: A Novel Feature for Azo Complexes, *Chemistry Select* 2 (2017)2044-2054.
5. P. Roy, A. Sau Mondal, A.K. Pramanik, T.K. Mondal, Ruthenium carbonyl complex of a redox non-innocent ONS donor azophenol ligand: Electrochemistry, photophysical property, electronic structure and catalytic activity towards oxidation of alcohols, *J. Organomet. Chem.* 828 (2017) 1-9.
6. S. Nandi, K. Das, A. Datta, D. Banerjee, S. Roy, T.K. Mondal, D. Mandal, P.K. Nanda, T. Akitsu, S. Tanaka, C. Sinha, Synthesis, spectral elucidation, electrochemistry and DFT interpretation of manganese(II)-thioalkyl-arylazoimidazole complex, *J. Mol. Struct.* 1133 (2017) 574-579.
7. J. Dinda, G. Roymahapatra, D. Sarkar, T. K. Mondal, S. S. Al-Deyab, C. Sinha, W. -S. Hwang, Cu(I)-N heterocyclic carbene complexes: Synthesis, catalysis and DFT studies, *J. Mol. Struct.* 1127 (2017) 449-456.
8. S. Mondal, S. M. Mandal, T. K. Mondal, C. Sinha, Spectroscopic characterization, antimicrobial activity, DFT computation and docking studies of sulfonamide Schiff bases, *J. Mol. Struct.* 1127 (2017) 557-567.
9. A. K. Pramanik, D. Sarkar, S. Biswas, T. K. Mondal, An octahedral nickel(II) complex of a hexadentate N<sub>2</sub>O<sub>2</sub>S<sub>2</sub> thioether ligand: synthesis, characterization, X-ray and electronic structure, *Transit. Met. Chem.* 41 (2016) 849-856.
10. S. Gharami, D. Sarkar, S. Acharyya, T. K. Mondal, A Phenanthraquinone Based Fluorescent Probe for Sequential Detection of Cu<sup>2+</sup> and SO<sub>3</sub><sup>2-</sup>, *J. Fluoresc.* 26 (2016) 2113-2118.
11. S. Biswas, S. Acharyya, D. Sarkar, S. Gharami, T. K. Mondal, Novel pyridyl based

**Annual Report 2016-17**

azo-derivative for theselective and colorimetricdetection of nickel(II), *Spectrochim. Acta Part A* 159 (2017) 157-162.

12. S. Biswas, P. Roy, D. Sarkar, T. K. Mondal, Ruthenium carbonyl complex bearing thioether containing Schiff base ligand: Structure, electrochemistry and catalytic activity, *Indian J. Chem. Sec. A*, 55A (2016) 929-937.
13. D. Sarkar, A. K. Pramanik, T. K. Mondal, Benzimidazole based ratiometric and colourimetric chemosensor for Ni(II), *Spectrochim. Acta Part A*, 153 (2016) 397-401.
14. D. Ganguly, R. C. Santra, T. K. Mondal, S. Das, Synthesis, characterization, photo physical properties of two isomeric forms of an azo dye supported by DFT calculations and their interaction with DNA, *Chemistry Select* 1 (2016) 970-978.
15. D. Mallick, U. Panda, S. Jana, C. Sen, T. K. Mondal, C. Sinha, Lead(II) complexes of 1-alkyl-2-(arylazo)imidazole: Synthesis, structure, photochromism and metallomesogenic properties, *Polyhedron* 117 (2016) 318-326.
16. B. Naskar, R. Modak, D. K. Maiti, S. K. Mandal, J. K. Biswas, T. K. Mondal, S. Goswami, Syntheses and non-covalent interactions of naphthalene-bearing Schiff base complexes of Zn(II), Co(III), Cu(II) and V(IV): Selective detection of Zn(II), *Polyhedron* 117 (2016) 834-846.
17. K. Aich, S. Das, S. Goswami, C. K. Quah, D. Sarkar, T. K. Mondal, H-K. Fun, Carbazole–benzimidazole based dyes for acid responsive ratiometric emissive switches, *New J. Chem.* 40 (2016) 6907-6915.
18. P. Ghorai, A. Chakraborty, A. Panja, T. K. Mondal, A. Saha, Mono- and di-nuclear nickel(II) complexes derived from NNO donor ligands: syntheses, crystal structures and magnetic studies of dinuclear analogues, *RSC. Adv.* 6 (2016) 36020-36030.
19. B. Mandal, S. Singha, S. K. Dey, S. Mazumdar, T. K. Mondal, P. Karmakar, S. Kumar, S. Das, Synthesis, crystal structure from PXRD of a  $Mn^{II}(\text{purp})_2$  complex, interaction with DNA at different temperatures and pH and lack of stimulated ROS formation by the complex, *RSC. Adv.* 6 (2016) 51520-51532.
20. S. Kundu, A. K. Pramanik, A. S. Mondal, T. K. Mondal, Ni(II) and Pd(II) complexes with new N,O donor thiophene appended Schiff base ligand: Synthesis, electrochemistry, X-ray structure and DFT calculation, *J. Mol. Struct.* 1116 (2016) 1-8.

**Dr. Umasish Jana**

1. Iron-catalyzed 1,5-enyne cycloisomerisation via 5-endo-dig cyclization for synthesis of 3-(inden-1-yl) indoles derivatives, S. Jalal, K. Paul and U. Jana, *Organic Letts.*, 2016, 18, 6512–6515.

**Mr. Bibhuti Bhushan Show**

1. Synthesis and characterization of cerium (IV) incorporated hydrous iron (III) oxide as an adsorbent for fluoride removal from water, K. Mukhopadhyay, A. Ghosh, S. K. Das, **B. Show**, P. Sasikumar, U. C. Ghosh, *RSC Adv.*, 2017, 7, 26037–26051.
2. Tuned synthesis and characterizational insight into  $\beta$ -cyclodextrin amended hydrous iron-zirconium hybrid oxide: a promising scavenger of fluoride in aqueous solution, I. Saha, S. Kanrar, K. Gupta, B. Show, D. Nandi, K. Biswas, B. Manna, D. Chatterjee and U. C. Ghosh, *RSC Adv.*, 2016, 6, 93842-93854.
3. Development of a new Schiff-base semiconducting material for thin film active device and



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analysis of its charge transport mechanism, *Journal of Materials Science*, S. Halder, M. Das, K. Ghosh, A. Dey, B. Show, P. P. Ray and P. Roy, *J Mater Sci.*, 2016, 51, 9394-9403.

4. N-acetylcysteine assisted synthesis of core-shell Ag<sub>2</sub>S with enhanced light transmission and diminished reflectance: Surface modifier for c-SiN<sub>x</sub> solar cells, S. Banerjee, B. Show, A. Kundu, J. Ganguly, U. Gangopadhyay, H. Saha, N. Mukherjee, *J IndEng Chem.*, 2016, 40, 54-61.
5.  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> nanospheres: Facile synthesis and highly efficient photo-degradation of organic dyes and surface activation by nano-Pt for enhanced methanol sensing, B. Show, N. Mukherjee and A. Mondal, *RSC Adv.*, 2016, 6, 75347-75358.
6. Mesoporous CuO-ZnO p-n heterojunction with high specific surface area for enhanced photocatalysis and electrochemical sensing, S. Chabri, A. Dhara, B. Show, D. Adak, A. Sinha and N. Mukherjee, *Catal. Sci. Technol.*, 2016, 6, 3238-3252.
7. Core-shell CuO-ZnO p-n heterojunction with high specific surface area for enhanced photoelectrochemical (PEC) energy conversion, A. Dhara, B. Show, A. Baral, S. Chabri, A. Sinha, N. R. Bandyopadhyay, N. Mukherjee, *Solar Energy*, 2016, 136, 327-332.

#### Dr. Debajyoti Ghoshal

1. Multifunctional mixed ligand metal organic frameworks: X-ray structure, adsorption, luminescence and electrical conductivity with theoretical correlation, *Crys. Eng. Comm.*, 20<sup>th</sup> June, 2016, 18.
2. Reversible Phase Transformation in Three Dynamic Mixed-Ligand Metal–Organic Frameworks: Synthesis, Structure, and Sorption Study, *Crys. Growth & Design*, 18<sup>th</sup> July, 2016, 16.
3. Azo Functionalized 5-Nitro-1,3-benzenedicarboxylate Based Coordination Polymers with Different Dimensionality and Functionality, *Crys. Growth & Design*, 1<sup>st</sup> August, 2016, 16.
4. Eye-Catching Dual-Fluorescent Dynamic Metal–Organic Framework Senses Traces of Water: Experimental Findings and Theoretical Correlation, *Chem.-A Euro. J.*, 10<sup>th</sup> October, 2016, 22.
5. Construction of five dicyanamide based coordination polymers with diverse dimensionality: Synthesis, characterization and photoluminescence study, *Polyhedron*, 15<sup>th</sup> October, 2016, 117.
6. Syntheses and characterization of three diphenyl phosphate based Cu(II) complexes and the effect of non-covalent interactions on their supramolecular framework, *J. Chem. Sci.*, 23<sup>rd</sup> November, 2016, 128.
7. Hydrogen Uptake by an Inclined Polycatenated Dynamic Metal–Organic Framework Based Material, *Inorg. Chem.*, 28<sup>th</sup> December, 2016, 56.
8. Sulfonic Group Functionalized Mixed Ligand Coordination Polymers: Synthesis, Characterization, Water Sorption, and Proton Conduction Studies, *Inorg. Chem.*, 17<sup>th</sup> January, 2017, 56.

#### Dr. Saurabh Das

- i) Effect of Nickel-dihydroxyanthraquinonesulfonate complex formation on its biochemical behavior, P. S. Guin and S. Das, *Russian Journal of Physical Chemistry A*, 2016, **90**, 876.
- ii) Copper(II) pseudohalide complexes with isomeric N<sub>2</sub>O donor Schiff base ligands: Synthesis, characterization and molecular dynamics simulations of interactions with



### Annual Report 2016-17

- DNA, S. Jana, R. C. Santra, A. Frontera, M. G. B. Drew, J. Ortega-Castro, D. Fernández, S. Das, S. Chattopadhyay, *ChemistrySelect*, 2016 **1**, 448.
- iii) Synthesis, characterization, photo physical properties of two isomeric forms of an azo dye supported by DFT calculations and their interaction with DNA, D. Ganguly, R. C. Santra, T. K. Mondal, S. Das, *ChemistrySelect*, 2016, **1**, 970.
- iv) Synthesis, crystal structure from PXRD of a  $Mn^{II}(\text{purp})_2$  complex, interaction with DNA at different temperatures and pH and lack of stimulated ROS formation by the complex, B. Mandal, S. Singha, S. K. Dey, S. Mazumdar, T. K. Mondal, P. Karmakar, S. Kumar, S. Das, *RSC Adv.*, 2016, **6**, 51520.
- v) Molecular diversity in several pyridyl based Cu(II) complexes: biophysical interaction and redox triggered fluorescence switch, S. Adhikari, A. Sahana, B. Kumari, D. Ganguly, S. Das, P. P. Banerjee, G. Banerjee, A. Chattopadhyay, M. Fondo, J. S. Matalobos, P. Brandão, V. Félix and D. Das, *New J. Chem.*, 2016, **40**, 10378.
- vi) The water fraction of *Calendula officinalis* hydroethanol extract stimulates *in vitro* and *in vivo* Proliferation of dermal fibroblasts in wound healing, M. Dinda, S. Mazumdar, S. Das, D. Ganguly, U. B. Dasgupta, A. Dutta, K. Jana, P. Karmakar, *Phytotherapy Research*, 2016, **30**,1696.
- vii) The biological *in vitro* effect and selectivity shown by a  $Co^{II}$  complex of 2-(2-hydroxyphenylazo)-indole-3-acetic acid on three distinctly different cancer cells, D. Ganguly, C. K. Jain, R. C. Santra, S. Roychoudhury, H. K. Majumder, S. Das, *RSC Adv.*, 2016, **6**, 114906.
- viii) Design, Synthesis and *in vitro* Anticancer Activity of a Cu(II) Complex of Carminic Acid: A Novel Small Molecule Inhibitor of Human DNA Topoisomerase I and Topoisomerase II, P. Das, C. K. Jain, S. Roychoudhury, H. K. Majumder, S. Das, *ChemistrySelect*, 2016, **1**, 6623.
- ix) Anticancer Activity of a Complex of  $Cu^{II}$  with 2-(2-hydroxyphenylazo)-indole-3-acetic Acid on three different Cancer Cell Lines: A Novel Feature for Azo Complexes, D. Ganguly, C. K. Jain, R. C. Santra, S. Roychoudhury, H. K. Majumder, T. K. Mondal, S. Das, *ChemistrySelect*, 2017, **2**, 2044.

### Prof. Sujoy Baitalik

1. Bar, M.; Maity, D.; Das, S.; Baitalik, S.\* "Demonstration of Intramolecular Energy Transfer in Asymmetric Bimetallic Ruthenium(II) Complexes" *Dalton Trans.* 2016, **45**, 17241-17253.
2. Mondal, D.; Bar, M.; Mukherjee, S.; Baitalik, S.\* "Design of Ru(II) Complexes Based on Anthraimidazoledione Functionalized Terpyridine Ligand for Improvement of Room Temperature Luminescence Characteristics and Recognition of Selective Anions: Experimental and DFT/TD-DFT Study" *Inorg. Chem.* 2016, **55**, 9707-9724.
3. Mardanya, S.; Karmakar, S.; Mondal, D.; Baitalik, S.\* "Homo-and Heterobimetallic Ruthenium(II) and Osmium (II) Complexes Based on a Pyrene-Biimidazolate Spacer as Efficient DNA-Binding Probes in the Near-Infrared Domain" *Inorg. Chem.* 2016, **55**, 3475-3489.
4. Karmakar, S.; Mardanya, S.; Maity, D.; Baitalik, S.\* "Polypyridyl-Imidazole Based Os(II) Complex as Optical Chemosensor for Anions and Cations and Multi-Readout Molecular Logic Gates and Memory Device: Experimental and DFT/TDDFT Study" *Sens. Actuators B* 2016, **226**, 388-402.

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5. Mondal, D.; Baitalik, S.\* “Design of Ruthenium Biimidazole Anthraquinone Dyads to Demonstrate Photoinduced Electron Transfer: Combined Experimental and DFT/ TD DFT Investigations” *ChemistrySelect*, 2016, 1, 1318-1328.
6. Mondal, D; Pal, P.; Baitalik, S.\* “Anthraquinone-biimidazole Based Ruthenium (II) Complexes as Selective Multichannel Anion Sensors and Multi-Readout Molecular Logic Gates and Memory Devices: Combined Experimental and DFT/TD-DFT Study” *Sens. Actuators B* 2017, 242, 746-769.
7. Mardanya, S.; Mondal, D.; Karmakar S.; Baitalik, S.\* “Smart Ruthenium and Osmium Complexes Mimic the Complicated Functions of Traffic Signal and Memory Device” *Sens. Actuators B* 2017, 239, 635-641.
8. Karmakar, S.; Nandi, M.; Mukherjee, S.; Baitalik, S.\* “Polypyridyl-Imidazole Based Smart Ru(II) Complex Mimicking Advanced Boolean and Fuzzy Logic Functions” *Inorg. Chim. Acta.* 2017, 454, 76-88 (Invited Article).
9. Bar, M.; Maity, D.; Das. K.; Baitalik, S.\* “Asymmetric Bimetallic Ruthenium(II) Complexes Selectively Sense Cyanide in Water Through Significant Modulation of their Ground and Excited State Properties” *Sens. Actuators B*, DOI: 0.1016/j.snb.2017.05.025.

#### 5. Collaborative Programmes:

##### Prof. Rina Ghosh

As PI in collaboration, Project entitled “Studies on Anti-thyroidal .....bamboo-shoots of north east.... Thyroid disruption” DBT-Twin No. BT/471/NE/TBP/2013; My component: 6.75 Lacs; Jan 2015-still continuing.

##### Prof. Chittaranjan Sinha

(a) Prof. Elena Lopez Torres,

Departamento de Química Inorgánica, c) Francisco Tomás y Valiente, 7, Universidad Autónoma de Madrid, Cantoblanco, 28049-Madrid, Spain.

(b) Prof. Dr. Takashiro Akitsu

Department of Chemistry, Faculty of Science, Tokyo University of Science 1-3 Kagurazaka, Shinjuku-ku, Tokyo 162-8601, Japan

##### Dr. Amrita Saha

Dr. Antonio Frontera

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##### Mr. Bibhuti Bhushan Show

IEST, Shibpur, Presidency University and Visva-bharati, Santiniketan.

##### Dr. Partha Roy

Scientific collaboration with

- (i) Dr. Partha Pratim Ray, Dept. of Physics, Jadavpur University
- (ii) Dr. Corrado Rizzoli, b Universita' degli Studi di Parma, Dipartimento S.C.V.S.A., Parco Area delle Scienze 17/A, I-43124 Parma, Ital

**Annual Report 2016-17**

- (iii) Dr. Antonio Frontera, Departament de Química, Universitat de les Illes Balears, Crta. de Valldemossa km 7.5, 07122 Palma de Mallorca, Balears, Spain

**Dr. Debajyoti Ghoshal**

Debajyoti Ghoshal has collaboration with Dr. Swapan Chakrabarty of Department of Chemistry, University of Calcutta *for the theoretical study of the MOF based water sensors, designed by his group. He also has intra-University collaboration with Dr. P. P. Ray, Department of Physics, Jadaupur University for the electrical properties of the MOF.*

**6. Major Achievements:**

**Prof. Nitin Chattopadhyay**

Member of the Editorial Board of Biophysical Chemistry Journal.

**Prof. Chittaranjan Sinha**

Elected as Honorary Secretary of Indian Chemical Society.

**Prof. Soumen Ghosh**

- i) Joint Secretary of Indian Society for Surface Science and Technology,
- ii) Funding from Ministry of Science and Technology, Taiwan to deliver lectures in National Cheng Kung University and National Taiwan University.

**Prof. Subratanath Koner**

Visiting Professor, Ghent University, Belgium

**Dr. Debajyoti Ghoshal**

The work of the MOF based water sensor was *published in Chemistry - A European Journal and that paper is identified as VIP paper and highlighted as back cover of that prestigious journal.*

**Prof. Sujoy Baitalik**

Elected Fellow of the West Bengal Academy of Science & Technology in the year 2016 for the notable contribution in the field of Inorganic Chemistry and Inorganic Photochemistry.

## Annual Report 2016-17

### GEOGRAPHY

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The Department of Geography under the Faculty of Science is offering under graduate degree in Geography. The first session of students were admitted in 2015-16 sessions. This has been a long standing vision of the Faculty of Science which has ultimately become fruitful. The Department has a vision to make it one of the best departments in West Bengal for which several plans and programmes are being chalked out like preparations of the most updated syllabus in Geography under the science faculty and students will be offered science subsidiary subjects allied to Geography. The Department also plans to develop a state of art Remote Sensing and GIS laboratory for the students so that they can have access to the most updated knowledge of this branch of Geography which is emerging as a potential area of recruitment. The Department has prepared a detailed proposal for initiating the Post Graduate degree course in Geography from the academic year 2018-19 to accommodate the first batch of graduate students from the Department as well as for external candidates. Future plans also include of offering a diploma course in Remote Sensing and GIS. The Department is hosted in the third and fourth floor of the Megnad Saha Bhavan (Integrated Science Building).

#### 1. A. Courses Offered:

Name of the Course	Duration of the Course	No. of Students
1. B.Sc in Geography	3 years	20 (In each year)
2. PhD in Geography		15

#### B. Number of Faculty Members:

Professor - 01      Assistant Professor -01

#### 2. A. Area Research Activities

##### Dr. Lakshmi Sivaramakrishnan:

Urban and Regional Planning, Rural development, Environmental Assessments, Gender Issues, Urbanization and related aspects

##### Dr. Debajit Datta:

Natural Resource Management, Political Ecology, Urbanization and Rural Change, Sustainable Tourism

#### B. Major Research Project

##### Debajit Datta

1. Research project titled 'Assessment of Ecological Sustainability of Urban and Peri-Urban Agriculture in Kolkata Metropolitan Area' as Principal Investigator amounting Rs. 10,00000/- funded as Start-up Research Grant under UGC-BSR Faculty Research Promotion Scheme since March, 2017

### C. Minor Research Project

#### Debajit Datta

1. Research project titled 'Delineation of Urban and Peri-Urban Agricultural Areas in Kolkata Metropolitan Area Based on Crop Type and Crop Health' as Principal Investigator amounting Rs. 50,000/- funded by Jadavpur University Research Grant since December, 2016

#### 3. A. Invited Lectures Delivered/ Session Chaired:

#### Lakshmi Sivaramakrishnan

1. Delivered a lecture at the UGC-HRDC, University of Calcutta, Department of Anthropology on 16<sup>th</sup> February 2017 in the RC in **Behavioural Sciences** on "Indian culture through its Festivals and Food"
2. Delivered the Silver Jubilee Lecture at the A Two-Day National Seminar on Geography: A Science of Man and Environment organized by the Foundation of Practicing Geographers on 24<sup>th</sup> February 2017 on "Rural, Urban or Rurban: The Context with Indian Settlement Classification"
3. Delivered a lecture at IEST, Shibpur in Research Methodology Workshop on "Writing a Research Report and Evaluation of Research" on 9.3.17
4. Delivered a lecture on "Recent trends in Urban Research" at Department of Geography, North Eastern Hill University on Urban Research and Recent Trends in UGC SAP DRS III National Seminar cum Workshop on Research and Research Methodology in Geography, 24-25<sup>th</sup> March 2017.

#### Debajit Datta

1. Delivered the SP Chatterjee Memorial Lecture at Sripat Singh College, Murshidabad on 22 February, 2017 on 'An Appraisal of the Mangrove Management Alternatives in Village-fringe Forests of Indian Sunderbans: Resilient Initiatives or Short-term Nature Exploitations?'

#### B. Seminar/ Workshop/Conference/Symposium Attended:

#### Lakshmi Sivaramakrishnan

##### Name of Conference

##### Venue

##### Date

International Symposium on Challenges of Urbanisation and Planning in China and India Discussant in Panel Discussion I on Urbanisation : Process and patterns Department of Geography. **Venue** University of Calcutta **Date** 2-3<sup>rd</sup> January 2017

Special invited Lecture Strengthening Rural Urban Linkages with ICT in Rural Areas for Rural Development Co-Chairperson of Plenary Session I Prof. Sunil Munsri Memorial Lecture Chairperson of Technical session V : Social Infrastructure : Education , Health and Human Growth Pattern. Department of Geography and Disaster Management **Venue** Tripura University **Date** 5-7<sup>th</sup> January 2017

Kolkata Urban Observatory Workshop, UK-India Joint network on Sustainable Cities and Urbanisation in India. **Venue** The Park , Kolkata **Date** 7-8 March 2017

#### Debajit Datta

##### Name of the Paper Presented/Name of Seminar/ Conference/Place/Duration

Analyzing the impacts of human livelihood practices on ecological health of the wetlands in Ichhamati floodplains (As a co-author with J Gayen). National Seminar on 'Changing

### **Annual Report 2016-17**

Physico-cultural Landscape: Threats and Opportunities', Department of Geography, University of Calcutta 30 March, 2017

Analyzing the role and performance of NGOs in facilitating organic farming in Kolkata Metropolitan Area, India(As a co-author with S Mazumder)

International Conference on Environment and Ecology, Department of Botany, St. Xavier's College, Ranchi, 28 March, 2017

Assessment of water quality of floodplain wetlands of river Ichhamati(As a co-author with J Gayen). 2nd International Seminar on 'Environment and Society: Historical Perspective and Contextual Reality', Department of Geography, University of Burdwan 27 March, 2017

Community based mangrove management towards ecosystem sustainability and resilient livelihoods in Indian Sunderbans, International Seminar and 48th Regional Science Conference on 'Rural Habitat, Institutions and Development: Changing Nature and Challenges', Department of Geography and Disaster Management, Tripura University 5-7 January, 2017

Effects of unsustainable livelihood practices on ecological health of the wetlands in Ichhamati floodplains(As a co-author with J Gayen) International Seminar and 48th Regional Science Conference on 'Rural Habitat, Institutions and Development: Changing Nature and Challenges' Department of Geography and Disaster Management, Tripura University. 5-7 January, 2017

Ethnic Identity Politics and Women: A Study of Koch-Rajbanshi Sovereignty Movements in North Bengal(As a co-author with C Sengupta) National Seminar on 'Women Empowerment: A Third World Perspective', Department of Geography, Sivanath Sastri College, Kolkata. 5 September, 2016

#### **C. Seminar/ Workshop/Conferences/Symposium Organized**

##### **Lakshmi Sivaramakrishnan and Debajit Datta**

1. One day Lecture in Human Geography on 12<sup>th</sup> August 2016  
Speaker: Prof. Ramesh Dhussa  
Department for the Study of Culture and Society  
Drake University  
Des Moines, IA 50311
2. One day Lecture in Physical Geography on 4<sup>th</sup> January 2017  
Speaker: Dr. Chandana Mitra  
Department of Geosciences  
Auburn University  
Auburn, Alabama, USA
3. One day lecture on Economic Geography on 17<sup>th</sup> February 2017  
Speaker: Dr. Anis Chattopadhyay  
Retired Professor of Geography,  
Former Director of Public Instruction (DPI) & Ex-Officio Secretary,  
Higher Education Department, Government of West Bengal.



#### 4. A. Books/ Monographs etc. Published:

##### Lakshmi Sivaramakrishnan

1. Estimating Water Budget Through Water Balance Method in Alluvial Damodar Fan-Delta: A Study in Semi-critical Pandua Block of West Bengal” in Neo-Thinking on Ganges-Brahmaputra Basin Geomorphology in Das, B.C., Ghosh, S., Islam, A., Ismail, M. (Eds.) 2016 ISBN 978-3-319-26443-1, pp 115- 128 (as co author with Arijit Mazumder)

##### Debajit Datta

1. Applying social media and mobile freeware in social science research: problems and prospects. In: Ray DS, Ray SK, Mandal S, Mukhopadhyay K, Bandopadhyay S (Eds.) (2017) *Relevance and Impact of Free and Open Source Software in the Era of Globalization*. Madhav Books (P) Ltd., New Delhi. ISBN: 978-93-80615-35-6 (As a coauthor with D Chatterjee)
2. Ethnic conflicts in urban spaces: contested geographies of Koch-Rajbanshi identity politics in West Bengal and Assam. In: Bardhan M (Ed.) (2016) *Changing Urban Scenario and Emerging Conflicts in Post-globalization India*. Pakhirakash Prokashani, Kolkata. ISBN: 978-81-929234-8-2 (As a coauthor with C Sengupta)

#### B. Articles Published in Journals

##### Lakshmi Sivaramakrishnan

1. Inter Block Disparity in the Levels of Social Development: A Case Study of Barddhaman District , Geographical Review of India , Volume 78, No.3 , September 2016 , pp 245 -255, co author A. Bhattacharyya
2. “Rajpur Sonarpur Municipality and Its sphere of Influence”, Geographical Review of India , Volume 78, No.4 , December 2016 , pp 345 -365, co author S. Mazumder

##### Debajit Datta

1. Forest structure and soil properties of mangrove ecosystems under different management scenarios: Experiences from the intensely humanized landscape of Indian Sunderban. *Ocean and Coastal Management* 140(2017):22-33 (Elsevier, Impact Factor: 1.696) (Coauthor: S Deb)

#### 6. Major Achievements

:

##### Lakshmi Sivaramakrishnan

Subject Expert member of the Syllabus Revision committee under CBCS formed by Higher Education Council , Government of West Bengal and prepared the syllabus for Geography for Under Graduate level under CBCS

## GEOLOGICAL SCIENCES

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### 1. A. Courses Offered

Name of the Course	Duration of Course	No of Students Enrolled
1. B.Sc. in Geological Sciences	3 Years	115
2. M.Sc. in Applied Geology	2 Years	64
3. Ph.D.		44

<b>B. Number of Faculty Members</b>	Total - 20
	Professor – 11
	Associate Professor – 2
	Assistant Professor – 7

### 1. Area of Research Activities

#### a) Structural Geology Group

This Department has been recognized as one of the outstanding centers for experimental structural geology at the international level. Using analogue model experiments the Structural Group have dealt with a number of fundamental problems on the mechanics of small-scale deformational structures, such as refolded folds, boudinage structures and lineation patterns, leading to new genetic models for the aforesaid structures.

A line of studies investigates physical factors that control thrust localization in convergent tectonic settings. Using field observations from the Eastern Himalaya, coupled with scaled model experiments the location of the Main Central thrust has been interpreted in the framework of Indo-Asia collision. This work also explains the mechanics of bi-vergent tectonic wedges. Another line of work deals with the origin of thermal plumes and jets under varying hydrodynamic conditions. The study provides a map for plumes of contrasting ascent behavior. Recognizing deformation mechanism is an important step in rheological analysis of tectonites, especially in the context of strain localization. Based on systematic field observations and petrographic analyses, a study has been carried out to show the deformation mechanisms involved in the evolution of Daling thrust in the Himalaya. An important direction of the present work concerns applications of quantum mechanical calculations to estimate the physical behavior of silicates and oxides under extreme conditions.

Slope stability analysis of hill region of Karseong of Darjeeling Himalaya. Study is being carried out with the help of geophysical and geological investigation. 2D and 3D Numerical modeling will also be performed to understand the nature of slope failure in specific cases.

An attempt is also being made to understand the kinematics of structures developed in layered medium. Rocks are mainly layered in nature. Layering may be of different in type. Sedimentary rocks are made of layers of different composition but with various thicknesses. On the other hand, the gneissic rocks have layers of alternate composition with uniform thicknesses. In this study the development of structures are investigated in such layered medium in both compressional and extensional field.

**b) Ore Geology and Igneous Petrology Group**

The Economic Geology Group of this Department engaged in physico-chemical and chronological evolution of polymetallic mineralization in the Singhbhum shear zone. The methodologies adopted for such study includes 1) Field investigation, 2) Detailed petrography and mineral chemistry; 3) Whole rock geochemistry; 4) Fluid inclusion studies; 5) Chemical dating of selected minerals; 6) Use of conventional (sulfur) and non-conventional (boron) isotope.

Prof. S.K. Mondol and his students and collaborators have been conducting research in the field of ore geology, petrology and geochemistry of ultramafic-mafic rocks in the Indian Shield. These research projects involve petrology, geochemistry, mineralogy and isotopic studies of the ultramafic-mafic rocks and the related ores (such as platinum-group elements, chromite and Ni-Cu-sulfides) in both extrusive (e.g., komatiites and flood basalts) and intrusive systems (e.g., layered intrusions and ophiolitic complexes) in space and time. In addition, we are involved in addressing the issues related to chemical evolution of the Earth's mantle using PGE as geochemical tracers and Pt-Os isotopic systematics.

Work of Prof. T.K. Baidya and his group worked on the iron ores in eastern India. Both titaniferous magnetite ores and sedimentary iron ores associated with Banded Iron Formation (BIF) have been investigated. Titaniferous magnetite ores have been studied in the Saltora-Mejia sector of Bankura district (W.B.), Panrkidih area of Purulia district (W.B.) and Ramchandrapur-Tiludi sector of Purulia and Bankura.

**c) Metamorphic Petrology Group**

The Metamorphic Petrology Group has their focus of major research upon the Precambrian metamorphic belts of Eastern Ghats, Singhbhum, Chotanagpur, South India, Central India and Rajasthan.

Systematic studies of the porphyritic granite from center towards the margin of the granite body were carried out to understand the deformation pattern. Microstructural study was carried out and shows evidence of intracrystalline deformation with formation of sweeping to patchy undulose extinction, deformation lamellae, deformation twinning.

Crustal evolution of the crystalline basement rocks from parts of the Eastern Ghats Belt, Chotanagpur Granite Gneiss Complex, Mahakoshal group of central India and Southern Granulite Terrane have been investigated in detail. The focus of these study was to integrate, field relations among the rocks, textural and thermodynamic modeling of some key metamorphic assemblages, and isotopic analyses of some radiogenic and non-radiogenic minerals.

**d) Sedimentology Group**

The sedimentology group of this department had relied upon their state-of-art field studies to unravel the evolutionary history of any depositional basin within the sequence stratigraphic framework from years. But recent developed expertise in the field of geochemistry as well as remote sensing, in alliance with the field study, enables the group to explore new horizons. Though the sedimentology group of this department always paid much devotion on Precambrian formations, their recent endeavor also includes Phanerozoic as well as Quaternary formations of India.

The Group is actively working in Vindhyan, Cuddapah, Bagalkot and Marwar basin at present. One of the major objectives is to search for distinctiveness of Precambrian sedimentation systems. The group established uniqueness within Proterozoic fluvial systems through detailed facies and architectural analysis as well as paleohydrological studies across different Purana Basins of India;

A new front has been initiated recently by the group members in the Darjeeling Himalaya region. Remote Sensing was taken recourse to with help of digitized versions of toposheets and the results have been compared with those of the field observations. Digitization of varied kinds of aerial and linear morphometric parameters creates a robust document of occult neotectonic imprints in landform and drainage of the Subhimalayan zone in the Darjeeling District, India.

**e) Palaeontology Group**

The Paleontology Group of this Department has been actively engaged in the study of macroscopic fossils of the Kutch area, as reflected from recent publications. The current focus of their research is concerned with the genus *Choffatia* (Siemiradzki), which is an important Callovian ammonite in Kutch biostratigraphy. Several species of the genus were described by the early workers. However, they did not recognize intraspecific variability and sexual dimorphism in terms of the modern concepts.

Traces of predation by drilling gastropods and peeling crabs provide interesting insights about predator-prey interaction in ecological as well as evolutionary time. We have estimated the intensity of predation (both drilling and peeling) on recent terebrid gastropods from the Indian subcontinent. Similar evidence of intense naticid drilling predation occurs on scaphopod prey from a turritelline-dominated assemblage (TDA) which lies below the K-T boundary sections in Rajahmundry.

The Micropalaeontology research group is working on the marsh areas of Sunderban, Saurashtra coast and fjords areas of Arctic. Both the studies have a multiproxy approach such as microfossil especially foraminifera, sedimentology and stable isotopes that will help to reconstruct the climatic and biotic history from the Late Quaternary to Recent.

**f) Geophysics and Hydrogeology**

This research group at the Department of Geological Sciences deals with varied geophysical studies of groundwater issues, seismic hazards and magnetic properties of rocks. In a recent this group has conducted geoelectric vertical electric soundings (VES) with maximum electrode spacing of 1200 m in coastal main land region of south 24 Parganas and the resistivity layers parameters obtained from VES studies throw light on the facies change in subsurface lithology. This VES investigation aimed at mapping out the saline-water bearing zone overlying a fresh-water bearing zone. The Geophysics group of our Department has undertaken a project entitled “Magnetic and mineralogical studies of some granite gneiss and associated intrusive bodies in and around Bankura and Purulia, West Bengal”. The main objectives of the project are to identify the magnetic remanence carrier and to unravel the magnetisation history of the rocks and its tectonic implications, and finally to determine the palaeopole positions of rocks under consideration.

Combined paleomagnetis and magnetic anisotropy analyses have been carried out on the Proterozoic volcano-sedimentary rocks of the Singhbhum Group including the Dalma lava in parts of the eastern Indian Shield. The study focuses on the following:

- i. to identify the magnetic remanence carrier,
- ii. to assess a possibility of palaeomagnetic determinations using magnetic anisotropy (MA) characteristics.
- iii. to unravel the magnetization history of the rocks and its tectonic implications,
- iv. to determine the palaeopole positions of the studied rocks.

**g) Engineering Geology Group**

Flume base experimental work carried out to generate new data on local scour and sediment transport in fluvial flow at the vicinity to hydraulic structures like in long contraction and pier scour embedded within that for silt - clay mixed cohesive sediment beds are being carried out through a collaborative programme with the Department of Aerospace and Applied Mechanics of IEST, Shibpur, Howrah, WB. Research on the problems related to slope instability in urbanized hilly terrain of Himalaya are also in progress. Research studies are also being carried out on characterization of major mechanical properties of dominant bivalves of eastern coast of India.

**h) Multidisciplinary Research**

The current trend in geosciences shows that the cutting-edge researches demand a multidisciplinary approach, as reflected from recent publications at the international level where workers from varied disciplines participate in handling a geoscience issue. With this changing scenario, the Department of Geological Sciences proposed to undertake a multidisciplinary research work under the proposed FIST programme. Understanding the evolution of Precambrian crustal masses is one of the challenging issues in earth science research. Some projects are upcoming and already recommended by the UGC related to rock mechanics, fluvial hydraulics, slope stability and soil erosion, pertinent to the problems in the multidisciplinary arena of engineering geology, civil and environmental engineering.

**2. A Major Ongoing Research Programmes in the Department are:**

<b>Sr. No.</b>	<b>Research Programme</b>	<b>Sanctioned Grant (in Lacs of Rupees)</b>
1.	DST- FIST	210
2.	CAS (Phase VI)	131
3.	DST (Purse - II )	29
4.	UPE II	03

(Energy, Environment and Climate Change)

**3. B Major Research Project (Stared / Ongoing) -**

<b>P.I. of The Project</b>	<b>Title of the Project</b>	<b>Sponsoring Agency</b>
Prof. Pulak Sengupta	Petrological evolution.....of South India	CSIR
Prof. Pulak Sengupta	Uranium, copper.....mineralization, SPSZ	BRNS
Prof. Pulak Sengupta	Physico-chemical .....Indian shield.	BRNS-DAE, Govt. of India.
Prof. Subir Sarkar	A Synthesis..... A Field Guide	Springer Geology
Prof. Subir Sarkar	Evaluation of land and sea.....of Kutch	CSIR
Prof. Sanjoy Sanyal	Physico-chemical and deformational control of Rare Earth - Rare Metal (REE-RM)	BRNS-AMD
Prof. Dipak C Pal	Radiation damage and damage-controlled alteration haloes in minerals:	UPE-II
Prof. Dipak C Pal	Alteration types..... polymetallic deposits in and around Khetri, Rajasthan;	DST (Purse-II)
Dr. Supriya Mondal	Magnetic Anisotropy..... Chotanagpur Gneissic Complexes of Eastern India	DST (Purse-II)

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Dr. Sadhana M Chatterjee	Study of emplacement.....Delhi Fold Belt, Rajasthan	DST
Dr. Anupam Ghosh	Teleconnections Sub-Polar North .....Atlantic and Southern Indian Ocean.	DST
Dr. Anupam Ghosh	Palaeoenvironmental .....Svalbard region based on multi-proxy approach	NCAOR, (MOES)
Dr. Susanta Chaudhuri	Study on Local Scour ... experimental approach	UGC
Dr. Susanta Chaudhuri	Flume study on bridge pier scour embedded .....mixed sediment	JURG
Dr. Sunipa Mandal	GIS Techniques ..... Subhimalayan zone in Kalimpong-Jaigaon	UGC
Dr. Sunipa Mandal	Palaeogeography ..... in Eastern Himalayas	UPE-II
Dr. Sunipa Mandal	Palaeoclimate.....Siwalik Group In Eastern Himalayas	CAS (Phase-VI)
Dr. Tridib Kumar Mondal	Fabric analysis ..... implications for upper crustal fluid flow”,	DST (SERB)

#### 4. A Invited Lectures Delivered / Session Chaired

##### Dr. Anupam Ghosh

- Invited lecture delivered at Seminar: *Introduction to Microfossils*; Place: Department of Geology, Asutosh College; on 27-05-2016.
- Session Chaired in the Seminar Society of Exploration Geophysicists-Jadavpur University Student Chapter Honorary South and East Asia Lecture; Place: Department of Geological Sciences, Jadavpur University, on 21-02-2017.

##### Prof. Pulak Sengupta

- National Seminar, Plenary Lecture, IIT Kharagpur, 23<sup>rd</sup> October, 2016, duration 45 min
- As resource person under Inspire program, 2016 at KIIT, Bhubaneswar

##### Prof. Subir Sarkar

- Chaired a Plenary session in the National seminar of “Indian Association of Sedimentology held at BHU, Banaras 11-14<sup>th</sup> November, 2016
- Delivered lecture on “ Glimpses on Proterozoic life” in Istanbul Technical University, 19<sup>th</sup> October, 2016
- Delivered invited lectures and guided ONGC Geologists in fieldwork during training entitled “Field geological mapping in sedimentary terrain for ONGC officials” organized by Regional training Institute, Geological Survey of India, Govt. of India, 18<sup>th</sup> to 31<sup>st</sup> March, 2017

##### Prof. Subrata Karmakar

- Invited lecture delivered entitled “990-940 Ma metamorphic event of CGGC and its implication” at State Science Congress, Presidency University, Kolkata, 2016.

##### Dr. Tridib Kumar Mondal

- Received invitation from Geological Society of India to take one day workshop on “**Mohr circle simplified**” at annual meeting of Geological Society of India



### 3. B Seminar/ Workshop/Conferences/ Symposium Attended

#### Dr. Anupam Ghosh

- A comparative study of marsh foraminiferal assemblages along the east coast of India, 24<sup>th</sup> West Bengal State Science and Technology Congress, Bankura, Christian College, Bankura, 7-8<sup>th</sup> November, 2016
- A study of population dynamics of marsh foraminifera of stressed mangrove ecosystem along the coastal regions of India, Humboldt Kolleg 'Earth and Material Sciences for Sustainable Societal Developments', Raichak, West Bengal, 13<sup>th</sup>- 15<sup>th</sup> January, 2017.

#### Prof. Dipak C Pal

- Baidya AS, Banerjee A, **Pal DC**, Upadhyay D (2016) Multiple genetic types of garnet from the Khetri copper belt: evidence from mode of occurrences, texture and geochemistry. National seminar on "Development in geosciences in the past decade-emerging trends for the future and impact on society" held in IIT, Kharagpur in October, 2016. p. 23
- Baidya AS, Sen A, **Pal DC**, Upadhyay D (2016) Mode of occurrences, texture and major and trace element geochemistry of pyrite from the Madan-Kudan copper deposit, Khetri Copper Belt, Rajasthan, India: clues to the ore-forming process. National seminar on "Development in geosciences in the past decade- emerging trends for the future and impact on society" held in IIT, Kharagpur in October, 2016. p. 25
- Ozha MK, **Pal DC**, Mishra B (2016) Alteration of uraninite and its implication for chemical dating- an example from northwestern India. Goldschmidt, conference held on Yokohama, Japan during 26<sup>th</sup> June-1<sup>st</sup> July. p. 2412
- Sahoo D, Pruseth KL, Upadhyay D, **Pal DC**, Banerjee R, Gupta S (2016) Na-metasomatism and uranium mineralization in Palnad basin, Andhrapradesh India: implication for uranium transport in Na-zirconosilicate complexes. Goldschmidt, held on Yokohama, Japan during 26<sup>th</sup> June-1<sup>st</sup> July. p. 2689

#### Prof. Pulak Sengupta

- Annual meeting of SEMI, International Seminar, 2016 2. National seminar organized by IIT Kgp, 2016.
- Roy Choudhury, S., Mukherjee, S., Dey, A., Sanyal, S., **Sengupta, P.**, 2016. Reaction textures in some calc-silicate enclaves from the Chotanagpur granite gneissic complex, and their implications. *In: International Conference on Electron Microscopy and 37<sup>th</sup> Annual Meeting of the Electron Microscope Society of India. 2-4 June 2016. Varanasi, India, Abstract volume. pp. 84-85.*
- Das, Satabdi; Sanyal, Sanjoy; Karmakar, Subrata; **Sengupta, Pulak** (2016) Petrology of a suite of Deformed Alkaline rocks in Kankarkhari area of Purulia district, West Bengal: Evidence of intra-continental suturing in parts of Eastern Indian Shield during Neoproterozoic time. International conference on Electron Microscopy & XXXVII Annual Meeting of EMSI (2-4 June), Varanasi, India, Abstract Volume- pp. 85-86
- Roy Choudhury, S., Dey, A, Mukherjee, S., Sanyal, S. and **Sengupta, P.** 2017. Occurrence of fluoro-vesuvianite and fluoro-titanite in a suite of calc silicate rocks: evidence of fluorine rich aqueous fluid metasomatism from north eastern parts of Chotanagpur Gneissic Complex, India. *In: Humboldt Kolleg 'Earth and Material Sciences*

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for Sustainable Societal Developments' 13th – 15th January, 2017; Raichak, WB. Abstract Volume, ISBN-978-93-82549-29-1. pp-53

- Das, Satabdi; Roy, Nita; Sen, Prabhati; Sanyal, Sanjoy; Karmakar, Subrata; **Sengupta, Pulak**; Sengupta, Shyamal Kr. (2017) Evidence of extensive alkali metasomatism along North Purulia Shear Zone (NPSZ) near Lanka- Nawadih area in the southern parts of Chhotanagpur Gneissic Complex of East Indian shield. Humboldt Kolleg 'Earth and Material Sciences for Sustainable Societal Developments' (13 – 15 January), Raichak, India, Abstract Volume- pp. 50-51, ISBN-978-93-82549-29-1
- Das, Enakshi; Lahiri, Nivedita; Karmakar, Subrata; Karmakar, Shreya; **Sengupta, Pulak** (2017) Metamorphic evolution of dioritic rocks from Araku valley of Eastern Ghats Belt, India: A petrological and thermobarometric investigation. Humboldt Kolleg 'Earth and Material Sciences for Sustainable Societal Developments' (13 – 15 January), Raichak, India, Abstract Volume- pp. 47-48, ISBN-978-93-82549-29-1

#### **Dr. Sadhana M. Chatterjee**

- **Sadhana M. Chatterjee** (2017) Does Phulad Shear Zone represents a terrain boundary? Humboldt Kolleg on Earth and Material Sciences, Raichak, West Bengal, 13<sup>th</sup> to 15<sup>th</sup> January 2017.
- **Sadhana M. Chatterjee**, Alip Roy, Subhrajyoti Das and Arpan Bhattacharya (2016) Deformation pattern in the porphyritic granite from the western part of South Delhi Fold Belt and its implications. National Conference on "Rock Deformation and Structure", 18<sup>th</sup> to 20<sup>th</sup> November 2016

#### **Prof. Sanjoy Sanyal**

- Humboldt Kolleg International Conference on 'Earth and material sciences for sustainable societal developments, January,13<sup>th</sup>-15<sup>th</sup>,2017,Raichak,West Bengal.
- Roy Choudhury,S., Mukherjee,S., Dey,A., **Sanyal,S.** and Sengupta,P.,2016: Reaction textures in some calc-silicate enclaves from the Chotanagpur Granite Gneissic Complex and their implications. In: Conference Abstract Volume on 'International Conference of Electron Microscopy, June 2nd-4th ,2016, Benaras Hindu University,Benaras, pp.84-85, (Oral presentation by first author).
- Karmakar,S.,**Sanyal,S.** and Sengupta,P.,2016: Origin of metasomatic sapphirine from corundum bearing anorthosites from Sittampundi Layered Complex,Tamil Nadu,India. In: Conference Abstract Volume on 'International Conference of Electron Microscopy, June 2nd-4th,2016, Benaras Hindu University,Benaras, pp.86, (Oral presentation by first author).
- Das,S.,**Sanyal,S.**,Karmakar,S. and Sengupta,P.,2016: Petrology of a suite of alkaline rocks in Kankarkhari area of Purulia district,West Bengal:evidence of intra-continental suturing in parts of Eastern Indian shield during Neoproterozoic time. In: Conference Abstract Volume on 'International Conference of Electron Microscopy, June 2nd-4th,2016, Benaras Hindu University,Benaras, pp.85-86, (Oral presentation by first author).
- Kole,L.,**Sanyal,S.**and Sengupta,P.,2016: Textural modeling of a high-pressure mafic granulite from parts of the Chotanagpur Granite Gneiss Complex (CGGC),India: evidence for rapid exhumation of a former lower crust. In: Conference Abstract Volume

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on 'International Conference of Electron Microscopy, June 2nd-4th,2016, Benaras Hindu University,Benaras, pp.146-147, (Poster presentation).

- Karmakar,S.,Chakrabarty,A.,**Sanyal,S.** and Sengupta,P.,2017: Petrology of Quartz-Sillimanite veins and host garnet-cordierite granulite of unknown origin from Makrohar Granulite Belt,Central India: evidence for Al-mobility. In: Humboldt Kolleg Conference Abstract Volume on ' Earth and material sciences for sustainable societal developments, January,13<sup>th</sup>-15<sup>th</sup>,2017,Raichak,West Bengal, pp.40.
- Talukdar,M.,Kole,L.,Sengupta,P. and **Sanyal,S.**,2017: Scapolite pseudomorphism in mafic-ultramafic granulites from Mahadevi Layered Complex,Tamil Nadu,India. In: Humboldt Kolleg Conference Abstract Volume on ' Earth and material sciences for sustainable societal developments, January,13<sup>th</sup>-15<sup>th</sup>,2017,Raichak,West Bengal, pp.42-43.
- Ray,S.,Dasgupta,N.,**Sanyal,S.** and Sengupta,P.,2017: Chemical reconstitution of clay minerals from Beldihi-Malti area,Purulia,West Bengal. In: Humboldt Kolleg Conference Abstract Volume on ' Earth and material sciences for sustainable societal developments, January,13<sup>th</sup>-15<sup>th</sup>,2017,Raichak,West Bengal, pp.44-45.
- Das,S.,Roy,N.,Sen,P.,**Sanyal,S.**,Karmakar,S.,Sengupta,P.,Sengupta,S.K.,2017: Evidence of extensive alkali metasomatism along North Purulia Shear Zone(NPSZ) near Lanka-Nawadih area in the southern parts of Chotanagpur Gneissic Complex of East Indian shield. In: Humboldt Kolleg Conference Abstract Volume on ' Earth and material sciences for sustainable societal developments, January,13<sup>th</sup>-15<sup>th</sup>,2017,Raichak,West Bengal, pp. 50-51.

#### **Prof. Subrata Karmakar**

- Humboldt Kolleg International Conference on ' Earth and material sciences for sustainable societal developments, January,13<sup>th</sup>-15<sup>th</sup>,2017,Raichak,West Bengal.
- Das, Satabdi; Sanyal, Sanjoy; **Karmakar, Subrata**; Sengupta, Pulak (2016) Petrology of a suite of Deformed Alkaline rocks in Kankarkhari area of Purulia district, West Bengal: Evidence of intra-continental suturing in parts of Eastern Indian Shield during Neoproterozoic time. International conference on Electron Microscopy & XXXVII Annual Meeting of EMSI (2-4 June), Varanasi, India, Abstract Volume- pp. 85-86
- Das, Satabdi; Roy, Nita; Sen, Prabhati; Sanyal, Sanjoy; **Karmakar, Subrata**; Sengupta, Pulak; Sengupta, Shyamal Kr. (2017) Evidence of extensive alkali metasomatism along North Purulia Shear Zone (NPSZ) near Lanka- Nawadih area in the southern parts of Chhotanagpur Gneissic Complex of East Indian shield. Humboldt Kolleg 'Earth and Material Sciences for Sustainable Societal Developments' (13 – 15 January), Raichak, India, Abstract Volume- pp. 50-51, ISBN-978-93-82549-29-1
- Das, Enakshi; Lahiri, Nivedita; **Karmakar, Subrata**; Karmakar, Shreya; Sengupta, Pulak (2017) Metamorphic evolution of dioritic rocks from Araku valley of Eastern Ghats Belt, India: A petrological and thermobarometric investigation. Humboldt Kolleg 'Earth and Material Sciences for Sustainable Societal Developments' (13 – 15 January), Raichak, India, Abstract Volume- pp. 47-48, ISBN-978-93-82549-29-1.

#### **Dr. Soumik Mukhopadhyay**

- Archaean microbial mat related structures: a pathway to the evolution of life. National Seminar on Recent Advances and Challenges in Geochemistry, Environmental and Sedimentary Geology. Aligarh, India, February 27, 2017.

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- Sequence architecture of the terrestrial interval at the base of Bagalkot Group – Influence of basin-margin faulting. National Seminar on Recent Advances and Challenges in Geochemistry, Environmental and Sedimentary Geology. Aligarh, India, , February 27, 2017.
- Controls on cyclic sedimentation within the Neoproterozoic Sirbu Shale, Vindhyan Basin, central India. National Conference & Field Workshop on Precambrians of India. Jhansi, India, November 22-24, 2016.
- Evolution of the terrestrial succession at the base of the Neoproterozoic Badami Group, Karnataka, India. National Conference & Field Workshop on Precambrians of India. Jhansi, India, November 22-24, 2016.
- Sedimentation rate - a key factor in sequence building: case study from Kundargi Formation, Bagalkot Basin, India. National Conference & Field Workshop on Precambrians of India. Jhansi, India, November 22-24, 2016.

#### **Dr. Sunipa Mandal**

- **Mandal, S.**, Sarkar,S., 2016. Mineralogy and geochemistry of the Mio-Pliocene Siwalik sediments of North Bengal and their implications. Abstract volume of National conference and 33rd Convention of Indian Association of Sedimentologists with emphasis on Energy Resources and Climatic Change, p.75; Benaras Hindu University (12-14 November, 2016) (Oral Presentation).
- **Mandal, S.**, Sarkar,S., 2017. Landform, drainage and sediment in Darjeeling-Jalpaiguri Sub-Himalayas and adjacent piedmont with neotectonic underpinning, Humboldt Kolleg, p.33., “Earth and Material Sciences for Sustainable Societal Developments” (13 – 15 January, 2017), Raichak, India, ISBN-978-93-82549-29-1 (Poster presentation).
- Koner, A., **Mandal, S.**, Choudhuri, A., Sarkar, S., 2017. Palaeoenvironmental sea-change across the western Jhuran-Bhuj boundary around Ghuneri, Kutch, India. Humboldt Kolleg, p.49., “Earth and Material Sciences for Sustainable Societal Developments” (13 – 15 January, 2017), Raichak, India, ISBN-978-93-82549-29-1 (Poster presentation).
- Samanta, P., Mukhopadhyay, **S.**, **Mandal, S.**, Sarkar, S., 2016. Controls on Cyclic Sedimentation within the Neoproterozoic Sirbu Shale, Vindhyan basin, Central India. National Seminar on “Recent Advances and Challenges in Geochemistry, Environmental and Sedimentary Geology”, Jhansi University (21-24 November, 2016) (Oral Presentation).

#### **Dr. Supriya Mondal**

- The Magnetic Susceptibility (Ms) Mapping of Road Dust from Kolkata City to Infer the Degree of Environmental Pollution. - Rimhim Maity, Punyotoya Paul, Debesh Gain, **Supriya Mondal**, Sashwat Kumar Singh, The Frontiers in Earth and Climate Science, Bengaluru, 2016.
- Petrology and Crystallization History of the Volcanic Rocks from the Mid-Proterozoic Dalma Formation, Singbhum District, Jharkhand, India.- Saurodeep Chatterjee, Tapan Kr. Baidya, Debesh Gain, **Supriya Mondal**, The Frontiers in Earth and Climate Science, Bengaluru, 2016.
- An Overview of the Metamorphic control on Magnetic Fabrics in the Charnockite Belt of Southern India at Krishnagiri and Dharmapuri Region, Tamil Nadu, India.-Saurodeep

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Chatterjee, Debesh Gain and **Supriya Mondal**, National Seminar on Rock Deformation and Structures Under the aegis of Structural Geology & Tectonic Study Group of India, November, 2016.

- Magneto-mineralogy and magnetic susceptibility study of Gneissic rocks and associated intrusive from Bankura and Purulia, West Bengal, India,-Debesh Gain, Saurodeep Chatterjee and **Supriya Mondal**, Ist Triennial Congress of FIGA (Federation of Indian Geosciences Association), 53<sup>rd</sup> Annual Convention of IGU (Indian Geophysical Union) and 34<sup>th</sup> Annual Convention of AHI (Association for Hydrologists in India), November, 2016.
- Magneto-mineralogy and interpretation of AMS fabrics of the Balugaon Anorthosite Massif, Eastern Ghats Belt, India.- Saurodeep Chatterjee, Debesh Gain and **Supriya Mondal**, IGU 52<sup>nd</sup> Annual Convention, November, 2015.
- Petrography and Micro-Structural Studies from a Selected cross-section of the Mid-Proterozoic Dalma Formation in and around Tatanagar-Chandil Area, Singhbhum District, Jharkhand, India.- Saurodeep Chatterjee, Tapan Kr. Baidya and **Supriya Mondal**, Seminar Abstract Volume Of Development In Geosciences In The Past Decade- Emerging Trends For The Future And Impact On Society (Dgpd-Etfis).
- Characterization of Magnetic-Mineralogy and the Interpretation of the Magnetic Fabrics along the Galudih-Banduan Section of the Dalma Formation, Singhbhum District, Jharkhand, India.-Saurodeep Chatterjee and **Supriya Mondal**, 1<sup>st</sup> Triennial Congress of FIGA (Federation of Indian Geosciences Association), 53<sup>rd</sup> Annual Convention of IGU (Indian Geophysical Union) and 34<sup>th</sup> Annual Convention of AHI (Association for Hydrologists in India), November, 2016.
- Magneto-mineralogy and Structural Implications of the Magnetic Fabrics from the Rocks of Govindapur area, Dhanbad, Jharkhand, India.-Punyotoya Paul, **Supriya Mondal**, Saurodeep Chatterjee, Debesh Gain, Rimjhim Maity, National Seminar on Rock Deformation and Structures Under the aegis of Structural Geology & Tectonic Study Group of India, November, 2016.
- Magnetic Susceptibility of Road dust from Kolkata relationship to Road Traffic. Sucheta Das, **Supriya Mondal**, Dipankar Buragohain and Utsha Dasgupta. A paper presented in the Regional Science & Technology Congress-2016, Presidency Division, W.B. held during 13<sup>th</sup> & 14<sup>th</sup> November, 2016 at National Institute of Technical Teachers Training & Research, Kolkata.

#### **Dr. Susanta Chaudhuri**

- **Chaudhuri, S.**, and Debnath, K. (2016). "Sediment removal processes from an evolving scour hole around bridge piers in clay-sand mixed cohesive sediment." Conference proceeding – International Conference on Developments in Geosciences in the Past Decade – Emerging Trends for the Future and Impact on Society, IIT KGP, pp.24.
- **Chaudhuri, S.**, Debnath, K., Manik, M. K. (2016). "Flume study on contraction scours in clay – sand mixed cohesive bed." HYDRO-16 INTERNATIONAL, 21<sup>st</sup> International Conference on Hydraulics, Water Resources and River Engineering, CWPRS, Pune, pp.29.

#### **Dr. Tridib Kumar Mondal**

- One day workshop on "Modern methods of fabric analysis in deformed rocks" at annual meeting of Geological Society of India.



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- Oral Presentation- Mondal, T. K., Ghosh, A., Fabric analysis of the Chitradurga granite (west Dharwar craton, South India) Implications for regional deformation. Annual general board meeting-2016, Geological Society of India, IIT Kharagpur.

#### **3. C Seminar/Workshop/Conference/Symposium Organized:**

##### **Dr. Anupam Ghosh**

- Workshop on Petroleum Geosciences organized by American Association of Petroleum Geologists-Jadavpur University Student Chapter Workshop, Place: Prof. S. Deb Memorial Hall, Geological Sciences, Jadavpur University, Duration: 11-07-2016 to 12-07-2016.

##### **Prof. Pulak Sengupta**

- Organized the International Seminar “HUMBOLDT KOLLEG”, Convener, 13-15<sup>th</sup> January, 2017

##### **Prof. Sanjoy Sanyal**

- Humboldt Kolleg International Conference on ‘Earth and material sciences for sustainable societal developments, January, 13<sup>th</sup>-15<sup>th</sup>, 2017, Raichak, West Bengal as Treasurer.

##### **Prof. Subrata Karmakar**

- Humboldt Kolleg International Conference on ‘Earth and material sciences for sustainable societal developments, January, 13<sup>th</sup>-15<sup>th</sup>, 2017, Raichak, West Bengal as Advisory Committee Member.

#### **4. A. Books/Monographs etc. Published**

##### **Dr. Anupam Ghosh**

Name of the Book: Applications of foraminifera, testate amoebae and tintinnids in estuarine palaeoecology. In: Weckström, Saunders, KM. Gell, PA. and Skillbeck CG eds.: Application of palaeoenvironmental techniques in estuarine studies. Name of the Publisher: Springer, Dordrecht.

##### **Dr. Tridib Kumar Mondal**

Mamtani, M.A., Mondal, T.K., Lahiri, S., Renjith, A.R., Bhatt, S. (2016). Workshop Manual 1. MOHR CIRCLE SIMPLIFIED (authors: Mondal, T.K., Lahiri, S. and Mamtani, M.A.) (Research Gate; DOI: 10.13140/RG.2.2.10334.64320)

#### **4. B. Articles Published in Journals**

##### **Dr. Anupam Ghosh**

The morphology and evolution of tidal sand bodies in the macrotidal Gulf of Khambhat, western India, *Sedimentary Geology*, 2016, vol.77, pp.714-730.

Quantitative Salinity Reconstructions of the Baltic Sea during the Mid-Holocene, *Boreas*, 2017, vol. 46(1), pp.100-110

##### **Prof. Dipak C Pal**

Baidya AS, Paul J, **Pal DC**, Upadhyay D (2017) Mode of occurrences and geochemistry of amphibole in the Kolihan-Chandmari copper deposits, Rajasthan, India: insight into the ore-forming process. **Ore Geology Reviews**, V. 31 (80), p. 1092-110.

**Pal DC**, Chowdhury T (2016) Radiation damage-controlled localization of alteration haloes in albite: implications for alteration types and patterns vis-à-vis mineralization and element mobilization. **Mineralogy and Petrology**, V. 110 (6), p.823-843.



**Prof. Pulak Sengupta**

Metasomatic alteration of chromite from parts of the Late Archaean Sittampundi Layered Magmatic Complex (SLC), Tamil Nadu, India, *Ore.Geol.Rev* , 2017 (in press) Moumita Talukdar, Sanjoy Sanyal, **Pulak Sengupta**

Element Mobility and Behaviour of Zircon during HT Metasomatism of Ferroan Basic Granulite at Ayyarmalai, South India: Evidence for Polyphase Neoproterozoic Crustal Growth and Multiple Metamorphism in the Northeastern Madurai Province. *J. Petrology*, 2016, 57 (9): 1729-1774, M. M. Raith, S. Brandt, **P. Sengupta**, J. Berndt, T. John, C. Srikantappa

Reaction textures, pressure–temperature paths and chemical dates of monazite from a new suite of sapphirine–spinel granulites from parts of the Eastern Ghats Province, India: insights into the final amalgamation of India and East Antarctica during the formation of Rodinia. 2017, *Geol. Soc. London* (in press), Enakshi Das, Subrata Karmakar, Anindita Dey, Shreya Karmakar and **Pulak Sengupta**.

Deciphering Sedimentary Provenance and Timing of Sedimentation From a Suite of Metapelites From the Chotanagpur Granite Gneissic Complex, India: Implications for Proterozoic Tectonics in the East-Central Part of the Indian Shield, 2017, Chapter 16, In : *Sediment Provenance : Influences on Compositional Change from Source to Sink*. Ed. *Rajat Mazumder* , Elsevier pp. 453-486, Dey, S. Mukherjee, S. Sanyal, M. Ibanez-Mejia, **P. Sengupta**.

Petrology and U–Pb geochronology of zircon in a suite of charnockitic gneisses from parts of the Chotanagpur Granite Gneiss Complex (CGGC): evidence for the reworking of a Mesoproterozoic basement during the formation of the Rodinia supercontinent. 2017 *Geol. Soc. London*, 457, Subham Mukherjee, Anindita Dey, Sanjoy Sanyal, Mauricio Ibanez-Mejia, Upama Dutta, and **Pulak Sengupta**.

The Eastern Ghats Belt, India, in the context of supercontinent assembly. 2017, *Geol. Soc. London*, 457, Somnath Dasgupta, Sankar Bose, Santanu Kumar Bhowmik, and **Pulak Sengupta**.

**Dr. Sadhana M. Chatterjee**

**Sadhana M. Chatterjee**, Manideepa Roy Choudhury, Subhrajyoti Das and Alip Roy (2017) Significance and dynamics of Neoproterozoic (810 Ma) Phulad Shear Zone, Rajasthan, NE India. *Tectonics* (accepted).

**Sadhana M. Chatterjee**, Manideepa Roy Choudhury and Subhrajyoti Das (2016) Reaction enhanced channelized fluid-flux along mid crustal shear zone: an example from Mesoproterozoic Phulad Shear Zone, Rajasthan, India. *Journal of Earth System Science*, 125 (7), 1321-1328

Sudipta Sengupta and **Sadhana M. Chatterjee** (2016) Microstructural variation in quartzofeldspathic mylonites and vorticity analysis using rotating porphyroclasts in Phulad Shear Zone, Rajasthan, India. In: Mukherjee S and Mulchrone K (Ed) *Ductile Shear Zones from Micro to macro-scales*. Wiley Blackwell's p-128-140.

Manideepa Roy Choudhury, Subhrajyoti Das, **Sadhana M. Chatterjee** and Sudipta Sengupta (2016) Deformation of footwall rock of Phulad Shear Zone, Rajasthan: Evidence of transpressional shear zone. *Journal of Earth System Science*, 125 (5), 1033-1040.

**Prof. Sanjoy Sanyal**

Dey,A., Mukherjee,S.,**Sanyal, S.**,Ibanez-Mejia,M. and Sengupta,P.,2016 : Deciphering sedimentary provenance and timing of sedimentation from a suite of metapelites from the Chotanagpur Granite Gneissic Complex, India:Implications for Proterozoic tectonics in the east-central part of the Indian shield. In : Majumder,R.(ed.) Sediment Provenance: influences on compositional change from source to sink; Chapter :16, pp.454-486,Elsevier pub.

Mukherjee,S., Dey,A., **Sanyal,S.**, Ibanez-Mejia.M., Dutta,U. and Sengupta,P.,2017: Petrology and U-Pb geochronology of zircon in a suite of charnockitic gneisses from parts of the Chotanagpur Granite Gneiss Complex(CGGC): evidence for the reworking of a Mesoproterozoic basement during the formation of the Rodinia supercontinent. In: Pant,N.C. and Dasgupta,S.(eds.) Crustal evolution of India and Antarctica: The Supercontinent connection. Geological Society London Sp.pub.

Karmakar,S., Mukherjee, S., **Sanyal ,S.** and Sengupta,P. :Origin of peraluminous minerals (corundum,spinel and sapphirine)in a calcic anorthosite from the Sittampundi Layered Complex,Tamil Nadu,India. Contrib.Mineral.Petrol.(under review).

Talukdar,M.,**Sanyal,S.** and Sengupta,P. : Chemical reconstitution and element mobility during alteration of an atypical chromite from parts of the Late Archaean Sittampundi Layered Magmatic Complex (SLC),Tamil Nadu,India. Ore Geology Review( in press).

**Dr. Soumik Mukhopadhyay**

**Mukhopadhyay, S.**, Samanta, P., Bhattacharya, S., Sarkar, S., 2017. Stratigraphic Evolution and Architecture of the Terrestrial succession at the base of the Neoproterozoic Badami Group, Karnataka, India. Accepted for publication in the Book “Geological Evolution of Precambrian Indian Shield” to be published under SES Series by Springer.

Samanta, P., **Mukhopadhyay, S.**, Mandal, S., Sarkar, S., 2017. Controls on cyclic sedimentation within the Neoproterozoic Sirbu Shale, Vindhyan Basin, central India. Accepted for publication in the Book “Geological Evolution of Precambrian Indian Shield” to be published under SES Series by Springer.

**Mukhopadhyay, S.**, Choudhuri, A., Chakraborty, N., Sarkar, S., 2017. Aseismic tectonism-induced soft-sediment deformation in a tranquil palaeogeography: Chikkshelikere Limestone Member, Proterozoic Kaladgi Basin, southern India. Accepted for publication in the Book “Geological Evolution of Precambrian Indian Shield” to be published under SES Series by Springer.

Choudhuri, A., Sarkar, S., Altermann, W., **Mukhopadhyay, S.**, Bose, P.K., 2016. Lakshanhatti stromatolite, India: biogenic or abiogenic? Journal of Palaeogeography, 5(3), 292-310.

**Prof. Subir Sarkar**

Chakraborty, N., **Sarkar, S.**,Mandal, A.,Mejiama, W., Tawfik, H.A., Nagendra, R., Bose, P.K., Eriksson, P.G., 2017.Physico-Chemical Characteristics of the Barremian-Aptian Siliciclastic Rocks in the Pondicherry Embryonic Rift Sub-basin. In: Mazumder, R., (Ed.) India Sediment Provenance: Influence on Compositional Change From Source to Sink, chapter 6, 85-121.

Mandal, A., Koner, A., **Sarkar S.**,Tawfik, H. A., Chakraborty, N., Bhakta, S., Bose P. K., 2016. Physico-chemical tuning of palaeogeographic shifts: Bhujformation,Kutch, India. Marine and Petroleum Geology, 78,474-492.

### **Annual Report 2016-17**

**Sarkar, S.**, Choudhuri, A., Mandal, S., Eriksson, P.G. 2016. Microbial mat-related structures shared by both siliciclastic and carbonate formations. *Journal of Palaeogeography*, 5(3), Lakshanhatti stromatolite, India: Biogenic or abiogenic? *Journal of Palaeogeography*, 2016, 5(3): 292-310.

#### **Prof. Subrata Karmakar**

Das Enakshi , **Karmakar Subrata** , Dey Anindita , Karmakar Shreya and Sengupta Pulak, 2017. Reaction textures, pressure–temperature paths and chemical dates of monazite from a new suite of sapphirine–spinel granulites from parts of the Eastern Ghats Province, India: insights into the final amalgamation of India and East Antarctica during the formation of Rodinia. , *Geol. Soc. London* (in press)

Das Satabdi, Dasgupta Nandini, Sanyal Sanjoy, Sengupta Shyamal, **Karmakar Subrata**, Sengupta Pulak, 2017. First report of a Dolomitic Carbonatite from the Chotanagpur Granite Gneiss Complex: A new DARC (Deformed Alkaline Rocks and Carbonatite) in the Precambrian shield of India. *Current Science* (accepted)

#### **Dr. Sunipa Mandal**

Mandal, S., Sarkar.,S. 2016. Overprint of neotectonism along the course of River Chel, North Bengal, India. *Journal of Palaeogeography* 5 (3): 221-240.

Sarkar, S., Choudhuri, A., Mandal, S., Eriksson, P.G.. 2016. Microbial mat-related structures shared by both siliciclastic and carbonate formations. *Journal of Palaeogeography* 5 (3): 278-291.

#### **Dr. Supriya Mondal**

Magneto-Mineralogy and interpretation of AMS fabrics and Analysis of Magnetic Fabrics of High Grade Rocks from Chilka Lake Area, Eastern Ghats Belt, India, Saurodeep Chatterjee, Debesh Gain and **Supriya Mondal**, *Earth Science India*, V.9 (1), January, 2016, pp.29-47.

Magnetic susceptibility as a proxy for pollution in Triveni-Bandel area, Hooghly district, West Bengal, India (2017): **Supriya Mondal**, Saurodeep Chatterjee, Rimjhim Maity, Debesh Gain, Ayanangshu Das and Saikat Sinha, *Current Science*, Vol. 112, No. 11, 10<sup>th</sup> June 2017.

#### **Dr. Susanta Chaudhuri**

**Chaudhuri, S.**, and Debnath, K. (2016), “Observation on initiation of pier scour and equilibrium scour hole profiles in cohesive sediments.” *Journal of Hydraulic Engineering*, Indian Society for Hydraulics, Taylor & Francis, vol. 24 (1), pp.27- 37.

### **5. Collaborative Programmes**

#### **Dr. Anupam Ghosh**

- Good collaborative research work with Prof. Helena Alexanderson, Lund University, Sweden is in progress for microfossil study of fjord sediments in the Arctic region.

#### **Prof. Dipak C Pal**

- Chris Mc Farlane, Department of Earth Sciences, University of New Brunswick, Canada on LA-ICP-MS dating of minerals
- Nigel Cook, Institute for mineral and energy resources, University of Adelaide, Australia: LA-ICP-MS dating of minerals

### ***Annual Report 2016-17***

- Lutz Nasdala, Institute for mineralogy and crystallography, University of Vienna, Austria: Radiation damage in minerals
- Biswajit Mishra, Kamal Lochan Pruseth and Dewashish Upadhyay, Department of Geology and Geophysics, IIT, Kharagpur: Major, minor and trace element geochemistry and chemical dating of minerals
- AK Sarangi, Uranium Corporation of India Limited (UCIL): Geology and mineralization in the Singhbhum shear zone
- Atomic Minerals Directorate for Exploration and Research (AMD/DAE): Geology and mineralization of uranium.

#### **Prof. Pulak Sengupta**

- On-going research programs are going on with colleagues from (a) Rochester University, USA, (2) University of Bonn, Germany, (3) University of Muenster, Germany.

#### **Dr. Supriya Mondal**

- Two Collaborative Research Doctoral Schemes were activated in between Geophysics lab. Dept. of Geol. Scs. and Indian Institute of Geomagnetism (IIG).

#### **Dr. Susanta Chaudhuri**

- One Ph.D research programme and a M.Sc. dissertation are being carried out in association with the Department of Aerospace Engineering and Applied Mechanics IEST, Shibpur, Howrah, India.
- Research study on mechanical properties 'molluscan shell' is in progress with the M.L. Dastur School of Material science, IEST, Shibpur, Howrah, India.

#### **Dr. Tridib Kumar Mondal**

- Name of the project: Spatial and fractal analysis of the reefs and dykes of Bundekhand craton, Central India
- Collaborator: Md. Sakawat Hossain, Department of Geological Sciences, Jahangirnagar University, Dhaka-1342, Bangladesh

#### **Major Achievements**

##### **Dr. Anupam Ghosh**

- The PhD course in Science Faculty, Jadavpur University- Environmental Micropalaeontology (Course Instructor- Dr. Anupam Ghosh) got recognized by The Micropalaeontological Society, United Kingdom. The Society awards the topper of this PhD course.
- Selected as one of the participant of Indian Summer Expedition to Arctic 2016-2017 by Ministry of Earth Sciences, Government of India and participated in the expedition from 21<sup>st</sup> July, 2016 to 22<sup>nd</sup> August, 2016. The first faculty member to be selected from Jadavpur University to participate in Arctic expedition.
- Selected as the Coordinator of the Erasmus Programme IMPAKT (2014-2018) on behalf of Jadavpur University (Associated Partner).

**Prof. Dipak C Pal**

- Has been elected as the Council member of the International Association for the Genesis of Ore Deposits (IAGOD) for the four years' term 2016-2020 in the capacity of Regional Councilor from India.

**Prof. Pulak Sengupta**

- Nominated member, sectional committee, Indian Academy of Science.
- Nominated member Education Panel formed by three national science academies.
- Expert Committee member, DST-FIST (Earth Science).
- Associate editor, Journal of Earth system science, Springer verlag.

**Prof. Subir Sarkar**

- Recipient, Bilateral Exchange Sr. Scientist Programme, INSA-TUBA (Indo-Turkey programme)
- Delivered lecture on “Glimpses on Proterozoic life” in Istanbul Technical University, 19<sup>th</sup> October, 2016.
- Host for “Scientist Exchange Programme” between India and Africa.

**Dr. Susanta Chaudhuri**

- Final Project Report' of the research project entitled “Flow within Channel Contraction and its Effect on Bridge Pier Sour for Clay – Sand Mixed Cohesive Sediment Bed”, funded by Jadavpur University research grant received letter of appreciation from the Pro-Vice Chancellor of the University.

**Dr. Tridib Kumar Mondal**

- Received Early Career Research (ECR) Award (Science and Engineering Research Board), from Department of Science and Technology, India.

## INSTRUMENTATION SCIENCE

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### 1. A. Courses Offered:

Name of the Course : M.Sc.(Instrumentation)

**Duration of the Course : 2 years (4 semesters)**

Intake strength : 20

**Ph.D. Course work, Duration: One Semester**

**B. Number of Faculty Members:** 4 (In position) (Professor – 1 , Assistant Professor–3)

- (i) Dr Anup Kr Ghosh - HoD, Assistant Professor (Selection Grade)
- (ii) Dr Radhaballabh Bhar - Professor
- (iii) Dr Sankar Narayan Patra - Assistant Professor
- (iv) Dr Sachindranath Das - Assistant Professor

Prof Manoranjan Khan, PI of sponsored Projects & Ex UGC Emeritus Fellow

Prof Arun Kumar Pal, PI of sponsored Projects & Ex-Emeritus Professor

### 2. A. Area of Research Activities: (Board Areas)

Design and Fabrication of Instruments in the field of Biomedical and Astrophysical Applications, Statistical Signal Processing and Data Analysis, , Photonics Engineering, Material Science (energy research and sensors).

Analytical Instrumentation, Plasma Science & Technology, Laser Ablated Plasma, Plasma Fusion Energy, Biochemical studies of Medicinal plants, Nanomedicinal materials, Nanocrystalline materials, Carbon nanofibre/tubes, Gas sensors, Solar Cell, Super Capacitor, Nanocrystalline materials, Nano-Carbon based PV, Plasmonics in PV.

### 2. B. Major ongoing Research Project:(Departmental/individual, Name of the Project/Funding Agency)

- | Sl. No | Project Investigators/Title of the Project/Funding Agency  | Year/Sanctioned Amount       |
|--------|--|------------------------------|
| 1.     | <b>Dr Sachindranath Das</b> : Energy storage devices based on CNT composite and surface modified metal oxide nanocrystals. DST(Inspire Scheme),                  | <b>2014-2018. 35 Lakhs</b>   |
| 2.     | Dr Sachindranath Das : Correlation between the compositional, structural and optical properties of perovskite layer with the efficiency of solar cell. DST(SERB) | <b>2015-2017 25.5 Lakhs</b>  |
| 3.     | Dr Sachindranath Das : Tuning the thermoelectric figure of merit of conducting polymer by incorporating metal nano clusters. UGC-DAE-CSR                         | <b>2015 - 18, 14.0 Lakhs</b> |
| 4.     | Dr Sankar Narayan Patra : Signal Processing on Solar Astrophysical Spectra, UGC,Start up.  | <b>2015- 17, 6.0 Lakhs</b>   |



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5. **Prof R. Bhar (PI) Dr Sachindranath Das.** Co-PI : Synthesis and Characterization of CNT-PANI composite for development of room temperature Co- Sensor. **DMSRDE, (DRDO) 2015-17, 9.9 Lakhs**
  6. **Prof A.K.Pal (PI) Prof R.Bhar(Co-PI) :** Nano Carbon Based Plasmonic Solar cells **DST (SERB). 2015- 2018, 19.768 Lakhs**
  7. **Prof A.K. Pal (PI) Prof R. Bhar (Co-PI) :** Novel PVDF-ZnO based DMS Materials **BRNS, GOI. 2014- 2017, 24.86350 Lakhs**
  8. **Prof A.K. Pal (PI) Prof R. Bhar (Co-PI) :** Free Standing and Flexible ZnO based DMS Materials: PVDF/ZnO:M(M:-Ni, Co and Ni<sub>x</sub>Co<sub>1-x</sub>) **UGC-DAE-CSR. 2016-2019, 14.00 Lakhs**
  9. **Prof R. Bhar (PI) Dr A.K.Ghosh(PI) :** Advanced Photovoltaic Solar Cell Structure: Nanocarbon based plasmonic solar cells. DST-PURSE -II, JU, **2016-18~Rs80 Lakhs,**
  10. Prof. M. Khan (PI) Prof. R. Bhar(Co-PI) Prof N.Chakrabarti(Co-PI) Prof Samiran Ghosh (Co-PI) : **Time Dependent Nonlinear Structure in Plasmas in the Frame Work of Lagrangian Fluid Description.** CSIR, **2017- 2020. 17.46 Lakhs Co-PI**
  11. **Dr A.K. Ghosh :** Ultra Structural Changes of Banana Fruit during Natural Ripening and Artificial Ripening. UGC-XIIth Plan, Inn.Res. **2015 - 16, 0.40 Lakh**
- 3. A. Invited Lectures Delivered/Session Chaired: (Name of the Teacher, Type of the Seminar/Conference etc., Place, Duration)**

Name of the Teacher/Type of Seminar/ Workshop/Conference/Organizer/Place/Duration  
No of days/Week

**Dr Sankar Narayan Patra**

IEEE on Computing and Communication Workshop and Conference 2017, Las Vegas, USA, IEEE USA Chapter and IEM. 3days, January 9 -11, 2017

**Dr Sachindranath Das**

Delivered Invited lecture in Workshop on Nanomaterials Technology, Yonsei University, South Korea. 1 Day, December 15, 2016

**Dr Sachindranath Das**

Delivered Invited lecture in **International Conference on Role of Microscopy and Allied Techniques.** F. M University, Balasore, 2016 Odisha. 3 Days November, 25-27, 2016

**Prof R. Bhar**

International Conference on Role of Microscopy and Allied Techniques in the Development of Multifunctional and Nanomaterials, Fakir Mohan University, Balasore, Odisha. **Chaired a session,** 3 days, November, 25 - 27, 2016

**Prof M. Khan**

Delivered series of Lecture on Dusty Plasma, Hydrodynamical Instabilities. Department of Physics, Beijing Agricultural University, China. 10 days, Nov 1-10, 2016

- 3. B. Seminar/Workshop/Conference/Symposium Attended: (Name of the Teacher, Name of the Paper Presented (if any) Name of the Seminar Place, Duration)**  
**Name of Teacher/Conference/Workshop/Place/Paper/Invited talk/Duration**

**Dr. Sachindranath Das**

Fourth International Symposium on Semiconductor Materials and Devices, 2017,

**Annual Report 2016-17**

Jadavpur University. Effect of Mn doping on optical and electrical properties of nano-crystalline ZnS; March 8 – 10, 2017

Fourth International Symposium on Semiconductor Materials and Devices, 2017, JU. Effect of Mn doping on optical and electrical properties of nano-crystalline ZnS; March 8-10, 2017

**Dr Sankar Narayan Patra**

IEEE on Computing and Communication Workshop and Conference 2017, Las Vegas, USA An Intelligent System for Ground-Based Solar Irradiance Measuring Instrument with High Degree of Accuracy and Portability. January 9 - 11, 2017

**Prof R. Bhar**

Fakir Mohan University, Balasore, Odisha. Invited talk on : **Microscopy and Its Application for Characterization of Smart Materials**. November, 25 – 27, 2016

Refresher Course for College and University Teachers on 'Recent trends in Biological Science', Dept. Of Life Sc. And Biotechnology, JU. Delivered Invited talk on '**Microscopy: LM, TEM, SEM & AFM: and its application in Biological Sciences** January 2 - 21 2017 = 21 days

**Prof M. Khan**

National Conference on Plasma Physics and Nonlinear Dynamics Delivered an invited Talk on '**An overview of Laser induced Fusion Energy**' March 23 - 24, 2017

**Prof A. K. Pal**

National Thematic Workshop on Advances in Nanostructured Materials: Applications and Perspectives-2016; Kaziranga University, Jorjat, Assam. Invited talk delivered 'Some Aspects of Nanoscience and Nanotechnology' June 1-2, 2016

**3. C. Seminar/Workshop/Conference/Symposium Organized: (Name of the Teacher, Name of the Paper Presented (if any) Name of the Seminar, Place, Duration)**

Name of the Teacher acted as co-ordinator /convener/Sponsored by/Name of Workshop/ Training Programme/Organized by/Duration

**Convener : Prof R. Bhar**

DST- PURSE-II, JUNational Seminar on '**Recent Development in Plasma Physics**'. Dept. Of Instrumentation Science, Centre for Plasma Studies, ., JU, and ACNCP, Kolkata, February 27, 2017.

Family members of Prof Gupta, Centre for Plasma studies and ACNCP, Kolkata **On the occasion of Prof. M. R. Gupta's** 85th birth anniversary, a Seminar was organized, Dept. of Instrumentation Science, Centre for Plasma Studies, , JU, and ACNCP, Kolkata. August 4, 2016

**4. B. Articles Published in Referred Journals: (Name of the Teacher, Name of the Article, Name of the Journal, Date of publication, Volume).**

- 1) Paul, A., Kumar, S., Kalita, S., **Ghosh, A. K.**, Mondal, A. C., & Mandal, B. (2017). A Peptide Based Pro-drug Disrupts Alzheimer's Amyloid into Non-toxic Species and Reduces A $\beta$  Induced Toxicity In Vitro. *International Journal of Peptide Research and Therapeutics*, 1-11.doi: 10.2174/1567205014666170713153414. [Epub ahead of print]PMID: 28714389.

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- 2) Kumar, S., Paul, A., Kalita, S., **Ghosh, A. K.**, Mandal, B., & Mondal, A. C. (2017). Protective effects of  $\beta$  sheet breaker  $\alpha/\beta$  hybrid peptide against amyloid  $\beta$  induced neuronal apoptosis in vitro. *Chemical biology & drug design*, 89(6), 888-900.
- 3) Paul, A., Kumar, S., Kalita, S., **Ghosh, A. K.**, Mondal, A. C., & Mandal, B. (2017). A Peptide Based Pro-drug Disrupts Alzheimer's Amyloid into Non-toxic Species and Reduces A $\beta$  Induced Toxicity In Vitro. *International Journal of Peptide Research and Therapeutics*, 1-11.
- 4) Ray, S. S., Das, D., Ghosh, T., & **Ghosh, A. K.** (2017) Influence of Zinc and Molybdenum Contents in Soil and Drinking Water for the Development of Esophageal Cancer: A Cross Continental Study. *International Journal of Sciences: Basic and Applied Research*. 31: 219-225.
- 5) Biswas, D., Poria, S. & **Patra, Sankar Narayan**, Phenomenological Approach To Describe Logistic Growth And Other Carrying Capacity Dependent Growth Processes,. *Pramana - J Phys* (2016) 87: 80.
- 6) D Biswas, S Poria, **Sankar Narayan Patra**, Phenomenological approach to describe oscillatory growth or decay in different dynamical systems—; *Indian J Phys* (December 2016) 90(12):1437–1444
- 7) Dibyendu Biswas, Swarup Poria & **Sankar Narayan Patra**, Analysis of different growth mechanisms from phenomenological consideration; *Journal of Interdisciplinary Mathematics* 2017, Vol. 20 , Issue. 2.
- 8) Dibyendu Biswas, Swarup Poria, **Sankar Nayaran Patra**, Role of specific growth rate in the development of different growth processes. (2016) arXiv preprint arXiv:1509.07717.
- 9) P. P. Sarkar; B. Ghosh; **S. N. Patra**; S. Mukhopadhyay, A new scheme of all optical frequency encoded DIBIT based latch with its simulated result ,Том 84, No 9 СЕНТЯБРЬ 2017, *Оптический журнал*;
- 10) Poulami Das, Subhas Chandra Panja, SudipNaskar, **Sankar Narayan Patra**, An Approach for obtaining least noisy signal using Kaiser Window & Genetic Algorithm, *International Journal of Computer Applications*, September 2016, Volume 150 – No.6,.
- 11) Nonlinear Wave breaking in self gravitating viscoelastic quantum fluid, A.Mitra, R. Roychoudhury, **R.Bhar, Manoranjan Khan**, *Phys.Lett A.* (2017) 381,639.
- 12) Magnetosonic shock wave in collisional pair-ion plasma, A. Adak, A.Sikdar, S. Ghosh, **Manoranjan Khan**, *Phys. Plasmas*, (2016) 23, 062124.
- 13) Local structure studies of Ni doped ZnO/PVDF composite free-standing flexible thin films using XPS and EXAFS studies, Ashok Kumar Yadav, Rajkumar Dey, Ritamay Bhunia, Shamima Hussain, Shambhu Nath Jha, Dibyendu Bhattacharyya, **Radha ballav Bhar and Arun Kumar Pal**· *J Polymer Res.* 23, 265 (2016)
- 14) Rajkumar Dey, Ritamay Bhunia, Shamima Hussain, Bibhas Ranjan Chakraborty, **Radhaballav Bhar, Arun Kumar Pal**; Structural and Optical Studies on Sol-Gel Composites of Nickel-Doped Nanocrystalline-Zinc Oxide/Polyvinylidene Fluoride; *Polymer-Plastics Technology and Engineering* (in press) (2016). doi: 10.1080/03602559.2016.1233252
- 15) S. Das, S. Hussain, **R. Bhar, A. K. Pal**; Electro-Deposited Polycrystalline Gallium Antimonide Films with Stoichiometric Composition; *International Journal for Science and Advance Research in Technology*, (2016), 2(8), 42-49

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- 16) A simple fast microwave-assisted synthesis of thermoelectric bismuth telluride nanoparticles from homogeneous reaction-mixture, Susmita Pradhan, Rashmita Das, **Radhaballabh Bhar**, Rajib Bandyopadhyay, Panchanan Pramanik, (2017/2/1), Journal of Nanoparticle Research, 19(2), p-69.
- 17) Chemical synthesis of nanoparticles of nickel telluride and cobalt telluride and its electrochemical applications for determination of uric acid and adenine, Susmita Pradhanan, Rashmita Das, Sudip Biswas, Dipak K Das, **Radhaballabh Bhar**, Rajib Bandyopadhyay, Panchanan Pramanik, Electrochimica Acta (2017) 238,185 - 193.
- 18) Probing local structure of co doped polyvinylidene fluoride-ZnO thin films using X-ray absorption spectroscopy, R Dey, A.K. Yadav, R. Bhunia, S.N. Jha, D. Bhattacharyya, S Hussain, **R Bhar, A.K.Pal**, Spectrochimica Acta Part B: Atomic Spectroscopy(2017),131, 115 – 123.
- 19) Structural and Optical Studies on Sol-gel Composites of Nickel-Doped Nanocrystalline Zinc Oxide/Polyvinylidene Fluoride, R Dey, R Bhunia, S Hussain, BR Chakraborty, **R Bhar, AK Pal**, Polymer-Plastics Technology and Engineering (2017)56 (3), 310-320.

**5. Collaborative Programmes (ongoing)**

**Name of the Teacher/Collaborating Institute & Name of Scientist/Area of Research/ Objective**

**Dr Sachindranath Das.**

**UGC-DAE-CSR, Indore Centre, A Collaborative Scientific Research Collaborator: Dr J B M Krishna**, Title of the Project: Tuning the thermoelectric figure of merit of conducting polymer by incorporating metal nano clusters

**Prof R.Bhar & Prof A.K.Pal**

**UGC-DAE-CSR, Indore Centre, A Collaborative Scientific Research. Colaborator: Dr Amarendra and Dr Shamima Hussain Dr V. Ganesan: Indore Dr S.N.Jha: RRCAT, Indore. Title of the Project: Free Standing and Flexible ZnO based DMS Materials: PVDF/ZnO:M(M:-Ni, Co and Ni<sub>x</sub>Co<sub>1-x</sub>)**

**6. Major Achievements :**

- (i) Ph. D. Degree awarded : 1
- (ii) Project completed : 1
- (iii) New project sanctioned : 1
- (iv) Fabricated a lab-scale ZnO/CuO/Cu<sub>2</sub>O/Ag PV solar cell

## LIFE SCIENCE & BIO-TECHNOLOGY

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hod.lifescbiotech@jadavpuruniversity.in

### 1. A. Courses Offered :

Name of the Course	Duration of the Course	No. of Students Enrolled
M.Sc. (Biotechnology)	2 Years	38

### B. No. of Faculty Members :

Professor	Associate Professor	Assistant Professor
3	0	2

### 2. A. Area of Research Activities : (Broad Areas)

- I. Microbial Biodiversity & Microbial Biotechnology II. Molecular Biology & Gene Technology, Bioinformatics, Metagenomics III. Cell Biology of Cancer, Aging, Nanobiotechnology IV. Messenger RNA biogenesis and surveillance, Regulation of Eukaryotic gene Expression, Quality Control of Eukaryotic gene expression

### B. Major Research Project :

#### Prof. Parimal Karmakar

1. Molecular and cellular studies on normal and diabetic wound healing activities of *Parkia javanica* and *Oroxylum indicum*, two medicinal plants of Tripura, Northeast India. DBT (Twining) , Total Fund : 63 lakh , 2014-2017. 2. Design strategies of macrocyclic ligand based self assembly of d 10 metal syste : photoluminescence property and biological activity. DRDO , Total fund: 29 lakh 2014-17. 3. Autophagy and Aging: functional and physical association of human premature aging syndrome protein WRN” CSIR , Total funding: 20 lakh, 2016-19. 4. To assess the contribution of PTEN and its post-translational modulation in DNA repair. DST (New Delhi) Total Funding: 40.7, 2017-20.

#### Dr. Biswadip Das

Uncovering Nuclear Machinery involved in the Turnover of ribosomal and other non-coding RNAs in *Saccharomyces cerevisiae* Principal Investigator CSIR 27.8 lakhs 2014-2019

Studies on the Functional role of DRN, a novel nuclear m RNA degradation pathway on the Cellular Regulation of Unfolded Protein Response in *Saccharomyces cerevisiae* Principal Investigator DBT 51.76 lakhs 2014-2017

#### Dr. Paltu Kumar Dhal

**Title of the Project and Duration/Role/Amount sanctioned/Funding Agency**  
Predicting the key virulent proteins.....network biology approaches Principal Investigator 7 lakhs UGC (2015-2017)

Biorational management of agricultural pests and diseases: evaluation of plant endophyte-mediated approaches Co-Principal Investigator 32 lakhs ISI-JU collaboration projects (2015-2108)

**Dr. Arunima Sengupta**

**Title of the Project and duration/Amount sanctioned/Funding Agency”**

AMPK, FOXO and NFATC3 transcription factor function in regulation of cardiomyocyte proliferation”, 3 years, 2015-2018, Rs.53.7 lakh (Transfer request from CU to JU is pending) Department of Biotechnology (DBT)

UGC start-up grant under UGC Faculty Recharge Program (UGC-FRP), 2 years, 2017-2019 Rs. 6 lakh only University Grant Commission (UGC)

**3. A. Invited Lectures Delivered / Session Chaired :**

**Prof. Parimal Karmakar**

1. Invited talk on “Metal based anticancer drug-delivery using polymer nanoparticles: development of strategy” in national seminar during November 11-13, 2016 at GLA university, Mathura.
2. Acted as chair for the “pharmacology and biomedicine” in the international conference on The green Planet–past present and future held on 21-23 December, 2016, in the department of Botany, Calcutta University.

**C. Seminar / Workshop / Conference / Symposium Organized :Name of the Teacher / Role / Name of the Seminar / Place / Duration**

**9<sup>th</sup> International Conference on Yeast Biology, December 9-12, 2015:** Organized by Dept. of Life Science and Biotechnology, Jadavpur University and Indian Association for the Cultivation of Science,

**D. Orientation Courses / Refresher Courses Attended :(Name of the Teachers, Title of the Course, Duration, Place)**

**Prof. Parimal Karmakar**

1. Invited talk on” Medical Biotechnology: achievement and risk” in 62 orientation programme organized by UGC-HRDC at Salt lake campus Jadavpur University, sept, 2016.
2. Invited talk on” Vaccine: where are we now”” in 63<sup>rd</sup> orientation programme organized by UGC-HRDC at Salt lake campus Jadavpur University, Oct15 to Dec12, 2016.

**E. Orientation Courses / Refresher Courses Organized :(Name of the Teachers, Title of the Course, if any, Duration, Place)**

1. Dr. Paltu Kumar Dhal and Prof. Biswadip Das. Recent Trends in Life Science Department of Life Science and Biotechnology: January 02 - 21, 2017

**4. B. Articles Published in Journals (Including National / International & Peer-reviewed Journals)(Name of the Teacher, Name of the Articles, Name of Journal, Date of Publication, Volume)**

**Prof. Parimal Karmakar**

1. Synthesis of multifunctional up conversion NMOFs for targeted antitumor drug delivery and imaging in triple negative breast cancer cells. Angshuman Ray Chowdhuri, Dipranjan Laha b, Soumen Chandra, Parimal Karmakar Sumanta Kumar Sahu. Chemical Engineering Journal 319 (2017) 200–211 (IF 5.3).
2. One-Pot Synthesis of Folic Acid Encapsulated Upconversion Nanoscale Metal Organic Frameworks for Targeting, Imaging and pH Responsive Drug Release Angshuman Ray



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Chowdhuri, Dipranjan Laha, Srimanta Pal, Parimal Karmakar and Sumanta Kumar Sahu Dalton Trans., 2016, Accepted Manuscript DOI 10.1039/C6DT03237K, (IF: 4.17)

3. Biochemical activity of a fluorescent dye rhodamine 6G: Molecular modeling, electrochemical, spectroscopic and thermodynamic studies. Abdulla Al Masum, Maharudra Chakraborty, Soumen Ghosh, Dipranjan Laha, Parimal Karmakar, Md. Maidul Islam, Subrata Mukhopadhyay, Journal of Photochemistry & Photobiology, B: Biology 164 (2016) 369–379. (IF:3.035)
4. The water fraction of Calendula officinalis hydroethanol extract stimulates in vitro and in vivo proliferation of dermal fibroblasts in wound healing. Manikarna Dinda, Swagata Mazumdar, Saurabh Das, Durba Ganguly, Uma B Dasgupta, Ananya Dutta, Kuladip Jana and Parimal Karmakar, Phytotherapy Research, 2016,. 30(10):1696-1707 (IF 2.66).
5. One pot synthesis of carbon dots entrenched chitosan modified magnetic nanoparticles for fluorescence based Cu<sup>2+</sup> ion sensing and cell imaging. Amit Kumar, Angshuman Ray Chowdhuri • Dipranjan Laha • Soumen Chandra • Parimal Karmakar, Sumanta Kumar Sahu. Jan 2016 • RSC Advances. 6, 58979-58987. (IF 3.28).
6. An in-vivo study for targeted delivery of copper-organic complex to breast cancer using chitosan polymer nanoparticles Arindam Pramanik, Dipranjan Laha, Sandeep Kumar Dash, Sourav Chattopadhyay, Somenath Roy, Dipak Kumar Das, Panchanan Pramanik, Parimal Karmakar. Materials Science & Engineering C, 2016. 68:327-37 (IF 3.42).
7. Guidelines for the use and interpretation of assays for monitoring autophagy (3rd edition). Klionsky DJ, Abdelmohsen K et al, Autophagy. 2016 Jan 2;12(1): 1-222. (IF 11.75)
8. Evaluation of Different Oxidative Stress Parameters and Apoptosis in Human Cervical Cancer Cells Exposed to Rod and Spherical Shaped Zinc Oxide Nanoparticles. Debalina Bhattacharya, Aritra Bhattacharyya, Parimal Karmakar. Bio Nano Science (March 2016, Volume 6, Issue 1, pp 1-14.
9. Self assembled nano fibers of betulinic acid: A selective inducer for ROS/TNF-alpha pathway mediated leukemic cell death. Sandeep Kumar Dash, Sourav Chattopadhyay, Shib Shankar Dash, Satyajit Tripathy, Balaram Das, Santanu Kar Mahapatra, Braja Gopal Bag, Parimal Karmakar, Somenath Roy. Bioorganic chemistry 2015 Dec;63:85-100. Impact factor : 2.15.doi:10.1016/j.bioorg.2015.09.006

#### **Prof. Ratan Gachhui**

1. Homology modeling, molecular docking and molecular dynamics studies of the catalytic domain of chitin deacetylase from *Cryptococcus laurentii* strain RY1; Soumyadev Sarkar, Suchetana Gupta, Writachit Chakraborty , Sanjib Senapati, Ratan Gachhui [Available online 15 March 2017 <https://doi.org/10.1016/j.ijbiomac.2017.03.057>].
2. Expression of a chitin deacetylase gene, up-regulated in *Cryptococcus laurentii* strain RY1, under nitrogen limitation; Writachit Chakraborty, Soumyadev Sarkar, Somnath Chakravorty, Semantee Bhattacharya, Debanjana Bhattacharya and Ratan Gachhui; J Basic Microbiology [Received: October 15, 2015; accepted: December 30, 2015 DOI 10.1002/jobm.201500596]
3. Antibacterial Activity of Polyphenolic Fraction of Kombucha Against Enteric Bacterial Pathogens; Debanjana Bhattacharya, Semantee Bhattacharya, Madhu Manti Patra1,

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Somnath Chakravorty, Soumyadev Sarkar, Writachit Chakravorty, Hemanta Koley, Ratan Gachhui; {Curr Microbiol DOI 10.1007/s00284-016- 1136-3}.

4. Kombucha tea fermentation: Microbial and biochemical dynamics; Chakravorty, S., Bhattacharya, S., Chatzinotas, A., Chakravorty, W., Bhattacharya, D., Gachhui, R.; International Journal of FoodMicrobiology: 220, pp 63-72 (2016).

#### **Dr. Biswadip Das**

Maity, A, Chaudhuri, A. and **Das, B.** (2016) DRN and TRAMP degrade specific and overlapping aberrant mRNAs formed at various stages of mRNP biogenesis in *Saccharomyces cerevisiae* **FEMS Yeast Research** Sep 29. pii: fow088

Das, S. and **Das, B.** (2016) eIF4G - An integrator of mRNA metabolism? **FEMS Yeast Research** Nov;16(7). pii: fow 087

Maity, A and **Das, B.** (2016) N6-methyl-adenosine modification in mRNA: Machinery, Function and Implications in health and diseases **FEBS J.**, 283, 1607-1630.

#### **Dr. Paltu Kumar Dhal**

1. Soumendranath Chatterjee, Priyanka Mukhopadhyay, Raktima Bandyopadhyay, Paltu Dhal, Debraj Biswal and Prabir Kumar Bandyopadhyay. (2016). Molecular characterization and phylogenetic analysis of Plasmodium vivax, Plasmodium falciparum, Plasmodium ovale, Plasmodium malariae and Plasmodium cynomolgi. Journal of Parasitic Diseases. DOI 10.1007/s12639-016-0783-4.

#### **Collaborative Programmes :**

##### **Prof. Parimal Karmakar**

- A. DBT, Twinning programme with Prof. Samir Kumar Sil, Tripura University.
- B. Collaboration with Bose institute, Calcutta.
- C. Collaboration with Dr. VA Bohr, NIH/NIA, USA.

##### **Dr. Paltu Kumar Dhal**

1. **National Collaboration:** Collaboration with Dr. Abhishek Mukherjee, Indian Statistical Institute, Giridi; Title of the Project “Biorational management of rice pests and diseases: evaluation of nanoparticle based and endophyte-mediated”. Funding Agency: MHRD, Indian Statistical Institute, Kolkata. Amount: about 32 lakh Duration: Three years (2015-18)
2. **International Collaboration:** Collaboration with Dr. Astrid Gaerdes of The Leibniz-Zentrum für Marine Tropenforschung in Bremen, Germany. Title of the Project: “Study of microbial communities of the Sundarban mangrove water column using metagenomics approaches.

#### **Major Achievements :**

- Sanctioned grant from WBDBT for infrastructural development.
- Two final year Students qualified CSIR NET
- Joint NAM S&T Centre - ZMT Bremen (Germany) Fellowship in Tropical Coastal Marine Research 2016

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**MATHEMATICS**

(DRS, UPE-II, DST-PURSE Supported)

Phone : + 91-33-2414-6717  
Int. : 2457-2465/2518  
H.O.D. : Prof. Ashis Kr. Sarkar  
E-mail : hod@math.jdvu.ac.in  
          hod.mathematics@jadavpuruniversity.in

**1. A. Courses Offered:**

B.Sc (Hons.)	:	3 years	Total intake: 93
M.Sc (Day)	:	2 years	Total intake: 60
M.Sc (Night)	:	3 years	Total intake: 60
Ph.D Course work.			

**1. B. Number of Faculty Members:** 30 (in position) 15 (vacant)

Professor:	21
Associate Professor:	04
Assistant Professor:	05

**2. A. Areas of Research Activities:**

Algebra, Mathematical Biology, Bio-Fluid Mechanics, Computer Science, Cosmology & Astrophysics, Differential and Computational Geometry, Dynamical Meteorology, Dynamical System, Fluid Mechanics, Functional Analysis, Game Theory, Graph Theory, Mathematical Physics, Operations Research, Plasma Dynamics, Real Analysis, Solid Mechanics, Topology.

**2. B. Major Research Project:**

**Prof. Sudeshna Banerjea**

**Title:** Water wave scattering by obstacles of various geometrical configurations.

**Funding Authority:** Council of Science & Industrial Research (CSIR)

**Duration of the project:** 2016- till date.

**Project Value:** 8,30,000/-

**Dr. Gopal Chandra Shit**

**Title:** Modelling of electro-osmotic flow and heat transfer in a micro-channel for microfluidic applications

**Ref.No.-** EEQ/2016/000050

**Funding Authority:** SERB DST, New Delhi.

**Duration of the Project:** 04 Years

**Project Value:** 20,32000/-

**Date of approval:** 16-12-2016

**Prof. Nandadulal Bairagi**

1. **Title :** Dynamics of predator-prey-parasite models with different biological aspects.

**Funding Authority:** DST

**Duration of the project:** 2013-2017

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2. **Title :** Emergent dynamics in ecological networks: Spreading of disease and its control study

**Funding Authority:** DST

**Duration of the project:** 2017-2020

**Prof. Alaka Das**

1. **Title :** Dynamic Characterizers of Spatio Temporal intermittency in coupled map lattices

**Funding Authority :** SERB, DST

**Duration of the project :** 2013-2016

**Project Value :** 14,89,000/-

2. **Title :** Computational Fluid and Elastodynamics

**Funding Authority :** UGC, UPE II

**Duration of the project :** 2016-2018

**Project Value :** 8,00,000/-(approx.)

**Prof. Farook Rahman**

**Title:** Theoretical Study on Dark Matter, Gravastar and Warmhole Spacetimes

**Funding Authority:** SERB, DST

**Duration of the project:** 2016-2019

**Project Value:** 8,05,000/-

**Prof. Arindam Bhattacharyya**

**Title:** Some Riemannian manifolds and their applications in general theory of relativity

**Funding Authority:** DST (PURSE),(Phase-2)

**Duration of the project:** 2013-2016

**Project Value:** Partial amount of Total Departmental Project Amount Rs. 1,10,00,000/  
- (approx.)

**2. C. Collaborative Research Project**

**Prof. Sudeshna Banerjea**

**Title:** Water wave scattering by obstacles of various geometrical configurations.

**Funding Authority:** Council of Science & Industrial Research (CSIR)

**Duration of the project:** 2016- till date.

**Project Value:** 8,30,000/-

**PI:** Sudeshna Banerjea

**CoPI:** Prof. B.N.Mandal

(Retd. Prof. and NASI Scientist, PAMU, Indian Statistical Institute, Kolkata)

**Prof. Priti Kumar Roy**

**Title:** Mathematical application of enzymatic preparation for different drug induced commodities towards societal benefit.

**Funding Authority:** DBT

**Duration of the project:** 2015-2018

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**PI:** Prof. Priti Kumar Roy

**CoPI:** Prof. Nandadulal Bairagi (Professor, Department of Mathematics, Jadavpur University, Kolkata)

**3. A. Invited Lectures Delivered/Session Chaired:**

**Prof. Subenoy Chakraborty**

1. Delivered an invited talk on “**Einstein’s Theory of Relativity: The Mathematical Story**” in the **Department of Mathematics, Ramakrishna Mission Vidyamandira College** on July 25, 2016.
2. Delivered a key note address on “**The Mathematical Background of Relativity Theory**” and an invited talk on the “Karl Schwarzschild and Black hole in Einstein gravity” in the UGC sponsored National seminar on “CCEGR -2016” at the **Department of Mathematics, Krishnagar Womens College, Krishnanagar, Nadia**, during September 6-7, 2016.
3. Delivered an invited talk on “**Does geometry dictate the Physical Law or Physics determine the Geometry?**” in the **Department of Mathematics, Bangabasi Evening College**, Kolkata, on November 10, 2016.
4. A set of invited lectures on “**Partial differential equations and its Applications**” were delivered in the refresher’s course at the **Department of Mathematics, Jadavpur University**, January 2-21, 2017.
5. Delivered an invited talk on “**Does geometry dictate the Physical Law or Physics determine the Geometry?**” in 9th National Conference on “Mathematical Techniques and Applications” NCMTA during 27-28 January, 2017 at **Department of Mathematics, SRM University, Kattankulathur – 603203**, Tamil Nadu, India
6. Delivered an invited talk on “**Differential Geometry- The Key role to Physical Laws.**” in “Conference on Differential Geometry and its Applications” during 27-28 January, 2017 at **Department of Mathematics & Statistics, DDU Gorakhpur University**, Gorakhpur, U.P. INDIA.
7. A set of invited lectures on “**Differential Equation and Symmetries**” were delivered in the refresher’s course at the **Department of Pure Mathematics, University of Calcutta**, on March 8, 2017.
8. Delivered a series of lectures on “**The Mathematical tools in Relativity and Cosmology**” at the **Department of Mathematics, Presidency University**, on 22nd March and 24th March, 2017.

**Prof. Farook Rahaman**

1. Delivered an invited talk on “**Causal Structure of spacetimes**” in the **Introductory Workshop on Astrophysics & Cosmology** organized by **Aliah University** in 2016.
2. Delivered an invited talk on “**Spacetime Causality**” in the **International Seminar on ‘Cosmology, Relativity and Gravity Waves’** organized by **The Asiatic Society, Kolkata** in 2017.

**Dr. Sukhendu Kar**

1. Delivered an invited talk in the “International Conference On Mathematics and Mathematics Education (ICMME – 2016)”, 10 – 13 July, 2016, Education University of Hong Kong, Hong Kong.

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2. Chaired a session in the “National Conference on Mathematical and Theoretical Biology (NCMTB – 2017)” held at Department of Mathematics, Jadavpur University, Kolkata during 16 – 17 March, 2017.

#### **Prof. Nandadulal Bairagi**

1. Invited talk delivered in the Seminar on Biomathematics organized by Institute of Mathematics, Czech Academy of Sciences, Prague, Czech Republic on 14<sup>th</sup> March, 2017.
2. Invited talk delivered in the Seminar on Differential Equations organized by Institute of Mathematics, Czech Academy of Sciences, Brno, Czech Republic on 8<sup>th</sup> March, 2017.
3. Special Lecture given on Mathematical Modelling of Hormone Secretion at Beijing Technology and Business University, Beijing, China 12<sup>th</sup> November, 2016.
4. Invited talk delivered in the International Conference “BIOMAT 2016 held in Nankai University, China during 30<sup>th</sup> October- 4<sup>th</sup> November, 2016.
5. Invited talk delivered in the International Conference “India Biodiversity Meet 2016 held in ISI, Kolkata during 23<sup>rd</sup> October-25<sup>th</sup> October, 2016.
6. Invited talk delivered in the International Conference on Mathematical Modeling and Simulation organized by Banaras Hindu University, Varanasi during 29-31 August, 2016.
7. Invited talk delivered on Dynamical Systems: Theory & Applications (DSTA 2017)” organized by Indian Institute of Technology (Indian School of Mines), Dhanbad during June 16-30, 2016.

#### **Prof. Priti Kumar Roy**

1. Delivered an invited talk “**ISIAM Silver Jubilee Conference**” in Sharda University, Greater Noida, 29-31 Jan, 2016, India.
2. Delivered an invited talk and chaired a session “**2nd International Conference on Mathematical Techniques in Engineering Applications (ICMTEA2016)**”, Dehradun, 29-30 April, 2016, India
3. Delivered an invited talk at one day Seminar on **Environmental Ethics** on 2nd June, 2016, in Narula Institute of Technology, Kolkata, India.
4. Delivered an invited talk at one day Seminar on **Faculty development program on Modern Trends in Teaching & Research Methodology** on 18-22nd July, 2016, in Narula Institute of Technology, Kolkata, India.
5. Chaired a session and Delivered an invited talk on “**International Conference on Mathematical Modeling and Simulation**”, held at Banaras Hindu University, Varanasi from 29-31 August, 2016.
6. Delivered an invited talk at **The National Seminar on Application of Mathematics in Technology and Management (NSAMTM 2016)** held on 8-9th September, 2016, in Narula Institute of Technology, Kolkata, India.
7. Chaired a session and Delivered a plenary talk at **Second Euro International Conference on HIV & AIDS (WCHA - 2017)** held on 12-14 May 2017, Kottayam, Kerala, India.
8. Delivered an invited talk “Escalating role of Mathematics for Biodiesel Production from Management Perspective” at “Beijing Institute of Technology”, 7th June, **2016**, in Beijing, **P.R.China**.



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9. Delivered invited research talks with teaching classes in mathematics for Under Graduate International Students at “Beijing Technology and Business University”, from 6-22nd June, **2016**, in Beijing, **P.R.China**.
10. Delivered an invited talk “Bridging therapeutic treatment with Keratinocyte Anomalies: Mathematical insights on Psoriasis” at “Anyang Institute of Technology”, 17th June, **2016**, in Anyang, **P.R.China**.
11. Delivered an invited talk “Role of Mathematics for Bio-diesel Production (Jatropha Oil) and Generating Awareness” on 17th October, **2016** in Department of Chemical Engineering, University of Chemistry and Technology, Prague, **Czech Republic**.
12. Delivered an invited talk “Biodiesel: From Ecology (Jatropha curcas) to Production Through Mathematical Aspect” on 19th October, **2016** in Faculty of Mathematics, Informatics and Mechanics, University of Warsaw, **Poland**.
13. Delivered an invited talk “Therapeutic Approach with Keratinocyte Anomalies: Mathematical insights on Psoriasis” on 2nd November, **2016** in Faculty of Mathematics, Informatics and Mechanics, University of Warsaw, **Poland**.

#### **Prof. Sudeshna Banerjea**

Delivered an invited talk in the “82<sup>nd</sup> Conference of IMS” organized by Kalyani University, during 27.12.2016-30.12.2016.

#### **Dr. Gopal Chandra Shit**

Delivered an **invited lecture** as resource person at the “Round Table Conference on Mathematical Formalism on Relativistic Cosmology” during August 26 – 27, 2016 organized by the Department of Mathematics, **GLA University, Mathura, U.P.**

**Title:** Numerical Solutions of Linear and Non-linear PDEs

#### **Prof. Kallol Paul**

1. Lectures delivered in the UGC sponsored “Refresher Course in Mathematical Sciences” at the Department of Pure Mathematics, University of Calcutta, Kolkata, India held during the period March 8 - March 29, 2017.
2. Invited talk delivered in UGC sponsored National seminar on “Advances and applications of contemporary mathematics” held on 18.02.2017 organized by K K Das College, Kolkata.
3. Invited talk delivered in UGC-HRDC JU organized 64th orientation program held at Saltlake campus of JU during 06.02.2017-26.02.2017.
4. Invited talk delivered in UGC sponsored National seminar on “Advanced level of Mathematical Science” held during 09-10 February, 2017 organized by Raja N. L. Khan Women’s College, Midnapur, West Bengal.
5. Guest Faculty at Department of Mathematics, Aliah University, Kolkata during Autumn semester of 2016.
6. Invited talk delivered in the National Conference on “Advances in Mathematical Sciences” during 22-23 December, 2016 held at Gauhati University.
7. Invited talk delivered in UGC-HRDC, JU organized 63rd orientation program held at Saltlake campus of JU during 15.11.2016-06.12.2016.

#### **Prof. Alaka Das**

Delivered an invited talk on “**Basics of Partial Differential Equations**” in CIMPA school held during 1/12/2016 to 12/12/2016 in the Department of Mathematics, JU.

**Prof. Sujit Kumar Sardar**

1. Invited lectures delivered in the International Conference on Algebra and its Applications(ICAA-2016), organized by the Department of Mathematics, Aligarh Muslim University, India during 12-14 November, 2016.
2. Invited lectures delivered in the National Seminar on Algebra and Analysis (NSAA-2017) Organized by the Department of Mathematics, University College, Thiruvananthapuram, Kerala during 1-3 February, 2017.
3. Invited lectures delivered in the National Seminar on “Mathematics And Its Application (NSMIA-2017)” organized by the Department, Department of Mathematics, Raiganj University, West Bengal during 20-21 March, 2017.
4. Invited lectures delivered in the International Conference on Exploring Advances in Mathematical Sciences(ICEAMS-2017), Organized by Department of Mathematics, University of Gour Banga, Malda , West Bengal during 23-24 March, 2017.
5. Invited lectures delivered in the Seminar on Trends in Mathematics organized by the Department of Mathematics, Bankura Christian College, West Bengal, during 8-9 February, 2017.
6. Acted as resource person in the Teachers Enrichment Programme held in Calcutta Mathematical Society.
7. Acted as resource person in the Refresher Course organized in the Department of Mathematics, Jadavpur University.

**3. B. Seminar/Workshop/Conference/Symposium Attended:**

**Dr. Sukhendu Kar**

Participated in The CIMPA (Centre International de Mathématiques Pures et Appliquées) - INDIA Research School on Geometric Flows to be held at Jadavpur University, Kolkata, West Bengal, India, during December 01 – 12, 2016, organized by Department of Mathematics, Jadavpur University, Kolkata, India and CIMPA jointly.

**Prof. Bibhas Chandra Giri**

**Visited** Technische Universität Darmstadt, Germany **during April 2016 – June 2016 under Alexander Von Humboldt Research Fellowship Program.**

**3. C. Orientation Courses/Refresher Courses Organized:**

**Prof. Kallol Paul**

Co-Ordinator of UGC-HRDC, JU sponsored Refresher course on “Mathematics and its applications” held at Department of Mathematics, JU during 02.01.2017-21.01.2017.

**Prof. Farook Rahaman**

Acted as Treasurer and member of the local organizing committee of “**CIMPA-INDI A research school on Geometric Flows**” held at Department of Mathematics, JU during **01.12.16 to 12.12.16.**

**4. A. Paper Published in Journals and Books:**

**Dr. Sukhendu Kar**

1. S. Jana, **S. Kar** & S. Mandal :”Mathematics For Competitive Examinations”; Fourth Edition – 2016; Academic Publishers; ISBN 978-93-83420-63-6; Pages – 652.

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2. B. Biswas, R. Sen Gupta, M. K. Sen & **S. Kar** : “On connectedness of square element graphs over rings”; Southeast Asian Bulletin Of Mathematics, Accepted for Publication.
3. P. Sarkar & **S. Kar** : “Interval-valued Primary Fuzzy Ideal of Non-commutative Semigroup”; International Journal of Applied and Computational Mathematics, Springer, DOI 10.1007/s40819-017-0336-2. (Online Published).
4. **S. Kar** & I. Dutta : “Globally Determined Ternary Semigroups”; Asian – European Journal of Mathematics, World Scientific, DOI : 10.1142/S1793557117500383. (Online Published).
5. **S. Kar** & S. Purkait : “On k-regularities in fuzzy semihyperrings”; International Journal of Applied and Computational Mathematics, Springer, Vol. 3, No. 2 (2017), 1121 – 1141. (DOI 10.1007/s40819-016-0166-7).
6. B. Dhara, **S. Kar** & K. G. Pradhan : “Co-centralizing Generalized Derivations Acting On Multilinear Polynomials In Prime Rings”; Bulletin of the Iranian Mathematical Society, Vol. 42, Issue 6 (2016), 1331 – 1342.
7. B. Dhara, **S. Kar** & K. G. Pradhan : “Identities with generalized derivations on multilinear polynomials in prime rings”; Afrika Matematika, Springer, Vol. 27, Issue 7 – 8, (2016), 1347 – 1360. (DOI 10.1007/s13370-016-0415-2).
8. B. Dhara, **S. Kar** & K. G. Pradhan : “An Engel condition on generalized derivation with annihilator on Lie ideal in prime rings”; MATEMATICKI VESNIK, Vol. 68, No. 3 (2016), 164 – 174.
9. **S. Kar** & A. Shikari : “Soft Ternary Semirings”; Fuzzy Information and Engineering, Elsevier, Vol. 8, No. 1 (2016), 1 – 15. (DOI : 10.1016/j.fiae.2016.03.001).
10. B. Dhara, **S. Kar** & S. Mondal : “Power values of derivations on multilinear polynomials in prime rings”; Acta Mathematica Vietnamica; Springer, Vol. 41, Issue 1 (2016), 121 – 131. (DOI 10.1007/s40306-015-0151-y).

**Prof. Arindam Bhattacharyya**

1. Santu Dey, Buddhadev Pal and **Arindam Bhattacharyya**, “On Some Classes of Mixed-Super Quasi-Einstein Manifolds”, Acta Univ. Sapientiae, Mathematica, Vol-8, Issue-1, (2016), P: 32-52.
2. Santu Dey and **Arindam Bhattacharyya**, “Some Curvature Properties of Lorentzian  $\alpha$ -Sasakian Manifolds”, Journal of Dynamical System & Geometric Theories, Vol-14, Issue-1(2016), P: 85-98.
3. Santu Dey and **Arindam Bhattacharyya**, “Some Curvature Properties of LP-Sasakian Manifold with respect to Quarter-symmetric Metric Connection”, International Journal of Mathematical Combinatorics, Vol-1, (2016), P: 42-56.
4. Santu Dey and **Arindam Bhattacharyya**, “On  $N(k)$ -Mixed Super Quasi Einstein Manifolds Satisfying Some Conditions”, Acta Mathematica Academiae Paedagogicae Nyíregyháziensis, Vol-33, No. 1, (2017).
5. Santu Dey and **Arindam Bhattacharyya**, “On  $\phi$ -pseudo symmetric LP-Sasakian manifolds with respect to quarter-symmetric non-metric connections”, Acta et Commentationes Universitatis Tartuensis Mathematica, Volume 20, Number 2, December 2016.

6. Buddhadev Pal, Santu Dey and **Arindam Bhattacharyya**, “Spherical Chains Inside a Spherical Segment”, International Journal of Mathematical Combinatorics, Vol-4(2016)’ 153-159.
7. Santu Dey, Buddhadev Pal and **Arindam Bhattacharyya**, “Some Classes of Lorentzian  $\alpha$ -Sasakian Manifolds Admittin a Quarter-symmetric Metric Connection”, accepted in Acta Universitatis Palackianae Olomucensis Facultas Rerum Naturalium, Mathematica.
8. S Pahan, B Pal, **Arindam Bhattacharyya**, Characterization on a Non-flat Riemannian Manifold Proceedings of the National Academy of Sciences, India Section A: Physical Sciences, First Online: 09 December 2016, DOI: 10.1007/s40010-016-0322-9, pp 1–7.
9. S Pahan, B Pal, **Arindam Bhattacharyya**, Multiply warped products as quasi-Einstein manifolds with a quarter-symmetric connection, Rend. Istit. Mat. Univ. Trieste Volume 48 (2016), DOI: 10.13137/2464-8728/13174, pp 587–605.
10. S. Pahan, T. Dutta, **Arindam Bhattacharyya**, Ricci Soliton and eta-Ricci Soliton on Generalized Sasakian Space Form, Filomat, Accepted, 2016.
11. S Pahan, B Pal, **Arindam Bhattacharyya**, On Einstein Warped Products with a Quarter-Symmetric Connection, Int. J. Geom. Methods Mod.Phys. (2016), [15pages], DOI: <http://dx.doi.org/10.1142/S0219887817500505>.
12. S Pahan, B Pal, **Arindam Bhattacharyya**, On Ricci flat warped products with a quarter-symmetric connection, Journal of Geometry, December 2016, Volume 107, Issue 3, pp 627–634.
13. T Dutta, N Basu, **Arindam Bhattacharyya**, Almost conformal Ricci solituons on 3-dimensional trans-Sasakian manifold, Hacettepe Journal of Mathematics and Statistics, 45(5), 2016, 1379-1392.
14. T. Dutta, **Arindam Bhattacharyya**, S. Debnath, Conformal Ricci Soliton in Almost  $C(\lambda)$  Manifold, International J.Math. Combin. Vol.3(2016),17-26.

**Prof. Nandadulal Bairagi**

1. Das, P. N., Mehrotra, P., Mishra, A., **Bairagi, N.** and Chatterjee, S., *Calcium dynamics in cardiac excitatory and non-excitatory cells and the role of gap junction* **Mathematical Biosciences**, 289, 51-68, 2017.(Elsevier)
2. Biswas, M. and **Bairagi, N.** *A predator-prey model with Beddington-DeAngelis Functional Response: A non-standard finite-difference method.* **J. Difference Equations and Applications**, doi: [org/10.1080/10236198.2017.1304544](http://dx.doi.org/10.1080/10236198.2017.1304544), 2017.(Taylor & Francis)
3. **Bairagi, N.** and Biswas, M. *Dynamic Consistency in a predator–prey model with habitat complexity: Nonstandard versus standard finite difference methods.* **Int.J. Difference Equations**,11, 139–162, 2016.(RIP)
4. Das, K. P., **Bairagi, N.** and Sen, P.: *Role of Alternative Food in Controlling Chaotic Dynamics in a predator-prey model with disease in the predator* **International Journal of Bifurcation and Chaos** 26(9) 1650147, 2016. (World Scientific)
5. **Bairagi, N.** and Adak, D. *Role of precautionary measures in HIV epidemics: A mathematical assessment.* **International Journal of Biomathematics**, 9(6) 1650096, 2016. (World Scientific)

**Annual Report 2016-17**

6. Das, P. N., Pedruzzi, G., **Bairagi, N.** and Samrat Chatterjee. *Coupling calcium dynamics and mitochondrial bioenergetic: an in silico study to simulate cardiomyocyte dysfunction.* **Molecular BioSystems**,12, 806-817,2016. (**Royal Society of Chemistry**)
7. **Bairagi, N.** and Adak, D. *Switching from simple to complex dynamics in a predator-prey-parasite model: an interplay between infection rate and incubation delay.* **Mathematical Biosciences**, 277, 1–14, 2016. (**Elsevier**)

**Prof. Subenoy Chakraborty**

1. Sourav Dutta, Muthusamy Lakshmanan and **S. Chakraborty** “Quintom cosmological model and some possible solutions using Lie and Noether symmetries” **Int. J. Mod. Phys. D.**, **25**, 1650110 (2016).
2. **S. Chakraborty**, Subhajit Saha, Christian Corda “Hawking-Like Radiation from the Trapping Horizon of Both Homogeneous and Inhomogeneous Spherically Symmetric Spacetime Model of the Universe”, **Entropy** , **18**, 287 (2016).
3. German S. Sharov, Subhra Bhattacharya, Supriya Pan, Rafael C. Nunes and **S. Chakraborty**, “A new interacting two fluid model and its consequences”, **Mon. Not. Roy. Astron. Soc.**, **466**, 3497-3506 (2017).
4. **S. Chakraborty**, “A New Stability Criterion for General Cylindrical Thin-Shell Wormholes”, **Gen. Relt. Grav**, **49**, 47 (2017).

**Prof. Sudeshna Banerjea**

1. Harpreet Dhillon, **Sudeshna Banerjea**, B.N. Mandal, Water wave scattering by a finite dock over a step-type bottom topography, *Ocean Engng.*, **113**, (2016)1-10.
2. Dibakar Mondal and **Sudeshna Banerjea**, Scattering of water waves by a inclined porous circular arc shaped barrier submerged in ocean, *Int. J. Comp. Meth. and Exp. Meas.*, **4**, No. 4 (2016) 532–542.
3. Dibakar Mondal and **Sudeshna Banerjea**, Scattering of water waves by a inclined porous plate submerged in ocean with ice cover, *Quart. J. Mech. Appl. Math.*, **69**, no. 2 (2016)195-213.
4. **Sudeshna Banerjea** , Paramita Maiti and Dibakar Mondal, Scattering of flexural gravity waves by a two dimensional thin plate, *JAFM*, **10**, no.1, (2017) 199-208.
5. **Sudeshna Banerjea** and Dibakar Mondal, Fundamental singularities in the theory of water wave with porous bottom, *Research in Applied Mathematics*, Edited by Zhong Wang, Nova Publishers Inc., New York, (2017) Chapter 12, 103-118.

**Prof. Kallol Paul**

1. D. Sain, P. Ghosh and K.Paul, On symmetry of Birkhoff-James orthogonality of linear operators on finite-dimensional real Banach spaces, *Operators and Matrices*, Accepted,2017.
2. D. Sain, K.Paul and A. Ray, Farthest point problem and M-compact sets, *Journal ofnon-linear and convex analysis*, 18 (2017) pages to be finalised.
3. K. Paul, P.Ghosh and D.Sain, On rectangular constant in normed linear spaces, *Journal of Convex analysis*, Accepted, 24(3) (2017) pages to be finalised.
4. S. Bose, Sk. M. Hossein and K. Paul, Fixed point theorems for weak contraction in partially ordered G-metric space, *Fixed Point Theory*, Accepted , 2016.



**Annual Report 2016-17**

5. K.Paul, D.Sain and P.Ghosh, Birkhoff-James orthogonality and Smoothness of bounded linear operators, *Linear Algebra and its Applications*, 506 (2016) 551-563.
6. S.Bose, Sk. M. Hossein and K. Paul, Positive definite solution of the matrix equation, *J.Fixed Point Theory Appl.*, 18 (2016) 627-643.
7. K.Paul, S. Ghosh Dastidar and S. Bag, Bounds for the numerical radius of 3X3 operatormatrices, *Advances in Mathematical Sciences and Applications*, 25(1) (2016)229-242.
8. P. Ghosh, D.Sain and K.Paul, Orthogonality of bounded linear operators, *Linear Algebra and its Applications* 500 (2016) 43-51.

**Dr. Gopal Chandra Shit**

1. **G.C.Shit**, N. K. Ranjit: Joule heating effects on electromagnetohydrodynamic flow through a peristaltically induced micro-channel with different zeta potential and wall slip, **Accepted in *Physica A: Statistical Mechanics and its applications (Elsevier)*, vol.-482 (2017) 458-476, *SCI, Impact Factor: 1.78*.**
2. N. K. Ranjit, **G. C. Shit**: Entropy generation on electro-osmotic flow pumping by a uniform peristaltic wave under magnetic environment, ***Energy-The International Journal (Elsevier)*, vol-128 (2017) 649-660, *SCI, Impact Factor: 4.292*.**
3. **G. C. Shit**, R. Haldar and S. Mandal: Entropy generation on MHD flow and convective heat transfer in a porous medium of exponentially stretching surface saturated by nanofluids, **Accepted in *Advanced Powder Technology (Elsevier)*, vol.-28 (2017) 1519-1530, *SCI, Impact Factor: 2.478*.**
4. Sreeparna Majee and **G. C. Shit**: Numerical investigation of MHD flow of blood and heat transfer in a stenosed arterial segment, ***Journal of Magnetism and Magnetic Materials (Elsevier)*, Vol-424 (2017) 137-147. *SCI, Impact Factor: 2.357***
5. J. C. Misra, **G. C. Shit** and R. Pramanik: Non-Newtonian flow of blood in a catheterized bifurcated stenosed artery, **Accepted in *Journal of Bionic Engineering (Elsevier)*, vol.-xxx (2017) xxx-xxx, *SCI, Impact Factor: 1.632*.**
6. **G. C. Shit**, N. K. Ranjit and A. Sinha: Adomian decomposition method for magnetohydrodynamic flow of blood induced by peristaltic waves, ***Journal of Mechanics in Medicine and Biology (World Scientific)*, vol-17 (2) (2017) 1750007, *SCI, Impact Factor: 0.803***
7. **G. C. Shit**, Amal Bera: Temperature response in a living tissue with different heating source at the skin surface under relaxation time, ***International Journal of Applied and Computational Mathematics (Springer)*, vol. 3 (2017) 381-394.**
8. **G. C. Shit**, A. Mondal, A. Sinha, P. K. Kundu: Electro-osmotic flow of power-law fluid and heat transfer in a micro-channel with effects of Joule heating and thermal radiation, ***Physica A: Statistical Mechanics and its applications (Elsevier)*, vol.-462 (2016) 1040-1057, *SCI, Impact Factor: 1.78*.**
9. **G. C. Shit**, R. Haldar and S. K. Ghosh: Convective heat transfer and MHD viscoelastic nanofluid flow induced by a stretching sheet, ***International Journal of Applied and Computational Mathematics (Springer)*, vol-2(4) (2016) 593-608.**
10. **G. C. Shit**, A. Mondal, A. Sinha, P. K. Kundu: Two-layer electro-osmotic flow and heat transfer in a hydrophobic micro-channel with fluid-solid interfacial slip and zeta



potential difference, **Colloids and Surfaces A: Physicochemical and Engineering Aspects (Elsevier)**, vol.-506 (2016) 535-549, **SCI, Impact Factor: 2.75..**

11. **G. C. Shit**, N. K. Ranjit: Role of slip velocity on peristaltic transport of couple stress fluid through an asymmetric non-uniform channel: Application to digestive system, **Journal of Molecular Liquids (Elsevier)** vol.-221 (2016) 305-315, **SCI, Impact Factor: 2.740.**
12. **G. C. Shit**, N. K. Ranjit and A. Sinha: Electro-magnetohydrodynamic flow of biofluid induced by peristaltic wave: A non-Newtonian model, **Journal of Bionic Engineering (Elsevier)**, vol.-13(3) (2016) 436-448, **SCI, Impact Factor: 1.632.**
13. A. Sinha, J. C. Misra, **G. C. Shit**: Effect of heat transfer on unsteady MHD flow of blood in a permeable vessel in the presence of non-uniform heat source, **Alexandria Engineering Journal (Elsevier)**, Vol-55(2016) 2023-2033. **SCOPUS.**
14. T. Raja Sekhar, S. Kuila and **G. C. Shit**: Solution to the Riemann problem for a five equation model of multiphase flows in non-conservative form, **Sadhana - Academy Proceedings in Engineering Science (Springer)**, Vol-41(2016) 1099-1109, **SCI-E, Impact Factor: 0.476.**
15. T. Raja Sekhar, S. Kuila and **G. C. Shit**: The Riemann problem for non-ideal isentropic compressible two phase flows, **International Journal of Non-Linear Mechanics (Elsevier)**, vol-81 (2016) 197-206. **SCI. Impact Factor: 1.977.**
16. F. Rahaman, B. Sen, K. Chakraborty and **G. C. Shit**: Study of galactic rotation curves in wormhole spacetime, **Astrophysics and Space Science (Springer)**, vol-361 (2016) 90, **SCI, Scopus, Impact Factor: 2.263.**
17. **G. C. Shit**, A. Mondal, A. Sinha, P. K. Kundu: Electro-osmotically driven MHD flow and heat transfer in micro-channel, **Physica A: Statistical Mechanics and its applications (Elsevier)**, vol-449 (2016) 437-454. **SCI, Scopus, Impact Factor: 1.732**
18. **G. C. Shit**, A. Mondal, A. Sinha, P. K. Kundu: Effects of slip velocity on rotating electro-osmotic flow in a slowly varying micro-channel, **Colloids and Surfaces A: Physicochemical and Engineering Aspects (Elsevier)**, Vol-489 (2016) 249-255. **SCI, Scopus, Impact Factor: 2.760.**
19. F. Rahaman, **G. C. Shit**, Banashree Sen, S. Ray: Could wormholes form in dark matter galactic halos ?, **Astrophysics and Space Science (Springer)**, vol-361 (2016) 37. **SCI, Scopus, Impact Factor: 2.263**
20. A. Sinha, A. Mondal, **G. C. Shit**, and P. K. Kundu: Effect of heat transfer on rotating electroosmotic flow through a micro-vessel: Haemodynamcal applications, **Heat and Mass Transfer (Springer)**. vol.-52(8) (2016) 1549-1557, **SCI, Scopus, Impact Factor: 0.946**
21. **G. C. Shit** and M. Roy: Effect of induced magnetic field on blood flow through a constricted channel: An analytical approach, **Journal of Mechanics in Medicine and Biology (World Scientific)**, vol-16(3) (2016) 1650030 (19 pages). **SCI, Impact Factor: 0.803**

#### **Dr. Santosh Biswas**

1. **Santosh Biswas** · Sudip Samanta · Qamar J. A. Khan · Joydev Chattopadhyay; Effect of multiple delays on the dynamics of cannibalistic prey-predator system with disease

in both populations, *International Journal of Biomathematics* (2016) , **10**, 1750049; **MR3628557**.

2. Krishna pada Das • Sudip Samanta • **Santosh Biswas** . Ali Saleh Alshomrani· Joydev Chattopadhyay; A strategy for a disease-free system- an eco-epidemiological model based study, (*Journal of Applied Mathematics and Computing*) (2016), DOI: 10.1007/s12190-016-1050-7
3. **Santosh Biswas** • Sudip Samanta • Joydev Chattopadhyay; A cannibalistic eco-epidemiological model with disease in predator population (2017), (DOI: 10.1007/s12190-017-1100-9)

**Prof. Priti Kumar Roy**

1. **Roy Priti Kumar**, J. Chowdhury and Basir F A.: “Renewable energy biodiesel: A mathematical approach from ecology to production”, *African journal of Pure and Applied Mathematics*, Vol. 3, No.1, pp. 95-111, 2016.
2. Biswas D, **Roy Priti Kumar**, Xue-Zhi Li, Basir F A, Pal J.: “Role of Macrophage in the Disease Dynamics of Cutaneous Leishmaniasis: A Delay induced Mathematical study”, *Communications in Mathematical Biology and Neuroscience*, Volume 2016, Available online at <http://scik.org>, 2016.
3. Ghosh, M. K. and Nandi, S. and **Roy Priti Kumar**: “A mathematical model for expected time to extinction of pathogenic bacteria through antibiotic”, *AIP Conference Proceedings*, 1723, 030011 (2016), DOI:<http://dx.doi.org/10.1063/1.4945069>, 2016.
4. Ezio Venturino, **Roy Priti Kumar**, Basir F A, Datta A: “A model for the control of the Mosaic Virus disease in *Jatropha curcas* plantations”. *Energy, Ecology and Environment*, Springer. DOI 10.1007/s40974-016-0033-82016, 2016.
5. **Roy Priti Kumar**, Basir F A, Ezio Venturino: “Effect of Awareness Program for controlling mosaic disease in *Jatropha curcas* Plantations. *Mathematical Methods in Applied Sciences*, DOI: 10.1002/mma.4149. 2016.
6. Datta A, Kesh D K, **Roy Priti Kumar**: “Effect of CD4+ T-Cells and CD8+ T-Cells on Psoriasis: A mathematical study”, *African journal of Pure and Applied Mathematics*, Vol. 3, No.1, pp. 1-11, 2016.
7. Xianbing Cao, Datta A, Basir F A, **Roy Priti Kumar**: Fractional-Order Model of the Disease Psoriasis: A Control Based Mathematical Approach. *Journal of System Science and Complexity*, Vol 29, pp. 1-20, Springer, 2016.
8. Chowdhury S, **Roy Priti Kumar**, Robert J. Smith?: “Mathematical modelling of enfuvirtide and protease inhibitors as combination therapy for HIV. *International Journal of Nonlinear Sciences and Numerical Simulation*, 17(6), pp.259–275, 2016.
9. Chowdhury J, Basir F A, Pal J, **Roy Priti Kumar**: “Pest Control for *Jatropha Curcas* Plant through Viral Disease: A Mathematical Approach”, *Nonlinear Studies*, Vol. 23 (4) pp. 517- 532, 2016.
10. Biswas D, Datta A, **Roy Priti Kumar**: “Combating Leishmaniasis through Awareness Campaigning: A Mathematical Study on Media Efficiency”. *International Journal of Mathematical, Engineering and Management Sciences*, Vol.1, (3), pp. 139–149, 2016.
11. Ghosh M K, Basir F A, **Roy Priti Kumar**, Datta S, Nandi S.: “Modelling of Delay Induced control in Biochemical Reaction”, *Communication in Optimization Theory*, Article ID 8, 2017.

**Annual Report 2016-17**

12. Ghosh M K, Pal Joydeep, **Roy Priti Kumar**: “How Memory Regulates Drug Resistant Pathogenic Bacteria? A Mathematical Study”, *International Journal of Applied and Computational Mathematics*, DOI 10.1007/s40819-017-0339-z, 2017.
13. Basir F A, **Roy Priti Kumar**: “Optimization of Biodiesel Synthesis in a Batch reactor using Maximum Principle”, *WSEAS TRANSACTIONS on ENVIRONMENT and DEVELOPMENT*, Vol.13, pp. 252–261, 2017.
14. Saha S and **Roy Priti Kumar**: A Comparative Study between Two Systems with and without Awareness Programs in Controlling the Disease HIV/AIDs. *Int. J. Appl. Math. Comput. Sci.*, 2017 (Accepted).

**Prof. Subhas Mandal**

1. Diffraction of SH-waves with cracks in composite media. *Mechanics of Advanced Materials and Structures*, <http://doi.org/10.1080/15376494.2017.1310334> - Aritri Nandi and S. C. Mandal
2. P-wave interaction with a pair of rigid strips embedded in an orthotropic strip *Journal of theoretical and applied mechanics* 54, 2, pp. 579-592, Warsaw 2016. - Sanjoy Basu and S.C.Mandal
3. Impact of Torsional Load on a Penny-Shaped Crack in an Elastic Layer Sandwiched Between Two Elastic Half-Space. *Int. J. Appl. Comput. Math* (2016) 2:533–543 . 2016. - Sanjoy Basu and S.C.Mandal
4. Elastodynamic Response of Symmetric Edge Cracks in an Orthotropic Strip *Int. J. Appl. Comput. Math*( DOI 10.1007/s40819-016-0259-3 , 2016. - Aritri Nandi and S.C.Mandal.
5. Interface Crack at Orthotropic Media *Int. J. Appl. Comput. Math* DOI 10.1007/s40819-016-0290-4. 2016 - Palas Mandal and S.C.Mandal.
6. Plane wave propagation in a 3D anisotropic half-space under Green-Naghdi Theory II *MATHEMATICAL MODELS IN ENGINEERING. DECEMBER 2016, VOLUME 2, ISSUE 2* - S. Chakraborty, S. C. Mandal, A. K. Das, N. Sarkar, A. Lahiri

**Prof. Bibhas Chandra Giri**

1. B.C. Giri, S. Bardhan, Sub-supply chain coordination in a three-layer chain under demand uncertainty and random yield in production, ***International Journal of Production Economics*, 2017**, <https://doi.org/10.1016/j.ijpe.2017.04.012>
2. B.C. Giri, A. Chakraborty, T. Maiti, Consignment stock policy with unequal shipments and process unreliability for a two-level supply chain, ***International Journal of Production Research*** (2017) 55(9) 2489-2505.
3. B.C. Giri, B. Roy, T. Maiti, Multi-manufacturer pricing and quality management strategies in the presence of brand differentiation and return policy. ***Computers and Industrial Engineering*** 105 (2017) 146-157.
4. T. Maiti, B.C. Giri, Two-way product recovery in a closed-loop supply chain with variable markup under price and quality dependent demand, ***International Journal of Production Economics*** 183 (2017) 259-272.
5. B.C. Giri, B. Sarker, Improving performance by coordinating a supply chain with third party logistics outsourcing under production disruption. ***Computers and Industrial Engineering*** 103 (2017) 168-177.

**Annual Report 2016-17**

6. T. Maiti, B.C. Giri, Two-period pricing and decision strategies in a two-echelon supply chain under price-dependent demand, **Applied Mathematical Modelling** 42 (2017) 655-674.
7. B.C. Giri, A. Chakraborty, T. Maiti, Pricing and return product collection decisions in a closed loop supply chain with dual-channel in both forward and reverse logistics. **Journal of Manufacturing Systems** 42 (2017) 104-123.
8. B.C. Giri, A. Chakraborty, T. Maiti, Effectiveness of consignment stock policy in a three-level supply chain, **Operational Research** 17(1) (2017) 39-66.
9. P. Biswas, S. Pramanik, B.C. Giri, Hybrid vector similarity measures and their applications to multi-attribute decision making under Neutrosophic environment, **Neutral Computing and Applications** 28(5) (2017) 1163-1176.
10. B.C. Giri, S. Bardhan, T. Maiti, Coordinating a three-layer supply chain with uncertain demand and random yield, **International Journal of Production Research** 54(8) (2016) 2499-2518.
11. B.C. Giri, S. Sharma, Optimal production policy for a closed-loop hybrid system with uncertain demand and return under supply disruption, **Journal of Cleaner Production** 112 (2016) 2015-2028.
12. B.C. Giri, B. Sarker, Coordinating a two-echelon supply chain under production disruption when retailers compete with price and service level. **Operational Research** 16 (2016) 71-88.
13. B.C. Giri, B. Roy, Modelling supply chain inventory system with controllable lead time under price-dependent demand, **International Journal of Advanced Manufacturing Technology** 84(9) (2016) 1861-1871.
14. B.C. Giri, S. Sharma, Optimal ordering policy for an inventory system with linearly increasing demand and allowable shortages under two levels trade credit financing, **Operational Research** 16(1) (2016) 25-50.
15. P. Biswas, S. Pramanik, B.C. Giri, TOPSIS method for multi-attribute group decision-making under single-valued neutrosophic environment, **Neural Computing & Applications** 27(3) (2016) 727-737.

**Prof. Abhijit Lahiri**

1. Effect of Rotation in an Orthotropic: Int. J. of Applied Mechanics and Engineering, 2017, vol.22, No.1, pp.163-174 DOI: **10.1515/ijame-2017-0010**, S. Santra, A Lahiri and N. C. Das.
2. Fractional Order Thermoelasticity of an Anisotropic Half- Space in the Context of G-N Model II: **Journal of Calcutta Mathematical Society**, 12(2),pp.65-90, **2016**, S. Chakraborty, B. Das and **A. Lahiri**.
3. Plane Wave Propagation in a 3D Anisotropic Half-Space Under Green- Naghdi Theory II: Mathematical Models in Engineering, vol.2, Issue 2, pp.114-134,**2016**, S. Chakraborty, S. C. Mandal, A. K. Das, N. Sarkar, **A. Lahiri**

**Prof. Farook Rahman**

1. A charged anisotropic well-behaved AdlerFinchSkea solution satisfying Karmarkar condition P Bhar, N Singh, N Pant, Farook Rahaman and S Banerjee, **Int.J.Mod.Phys.D,1750078 (2017)**

**Annual Report 2016-17**

2. C-field cosmological models: revisited A.K. Yadav, A.T. Ali, Saibal Ray , Farook Rahaman and I.H. Sardar **Research in Astronomy and Astrophysics**, **16**, **188 (2016)**
3. Mathematical modeling of compact anisotropic relativistic fluid spheres in higher spacetime dimensions B Sen, Th. Grammenos, P Bhar, Farook Rahaman, **Mathematical Methods in the Applied Sciences**, **4128 (2016)**
4. A new exact anisotropic solution of embedding class one S.K. Maurya<sup>1</sup>, Y.K. Gupta, T.T. Smitha Farook Rahaman, **The European Physical Journal A** **52 (7)**, **1-12 (2016)**
5. A well-behaved charged anisotropic Tolman VII spacetime Ksh. Newton Singha Farook Rahaman , Neeraj Pant, **Can. J. Phys.** **94**, **1017 (2016)**
6. The Finslerian wormhole model Farook Rahaman , Nupur Paul, S.S. De, Saibal Ray, A Banerjee, A A Usmani, **Eur. Phys. J.C.** **76**, **246 (2016)**
7. Study of galactic rotation curves in wormhole spacetime Farook Rahaman , Banashree Sen , Koushik Chakraborty, G.C. Shit, **Astrophys. Space Sci.** **361** , **90 (2016)**
8. Could wormholes form in dark matter galactic halos? Farook Rahaman , Banashree Sen ,G.C. Shit, **Astrophys. Space Sci.** **361** , **37 (2016)**
9. Braneworld gravastars admitting conformal motion A Banerjee Farook Rahaman , Sayeedul Islam, Megan Govender, **Eur. Phys. J.C.** **76** , **34 (2016)**
10. Emergence and oscillation of cosmic space by joining M1-branes A Sepehri, Farook Rahaman , Salvatore Capozziello, Ahmed Farag Ali, Anirudh Pradhan, **Eur.Phys.J.C.** **76**, **231 (2016)**
11. A generalized model for compact stars A Aziz, S Ray Farook Rahaman, **Eur.Phys.J.C.** **76**, **248 (2016)**
12. Simultaneous emergence of curved spacetime and quantum mechanics S.S. De, Farook Rahaman, **Can. J. Phys.** **94**, **192 (2016)**
13. About Influence of Gravity on Heat Conductivity Process of the Planets S.O. Gladkov, A. Yadav, Saibal Ray Farook Rahaman, **Int.J. Theor.Phys** ,**55**, **1536 (2016)**
14. Charged gravastars in higher dimensions S. Ghosh , Farook Rahaman , B.K. Guha c, Saibal Ray, **Phys. Lett.B** **767**, **380 (2017)**
15. A relativistic two-fluid model of compact stars K. Chakraborty, Farook Rahaman , A Mallick, **Mod. Phys. Lett. A**,**32**,**1750055 (2017)**
16. Conformally symmetric relativistic star Farook Rahaman , S. Maharaj, K. Chakraborty, I H Sardar, **Mod. Phys. Lett. A** **32**, **1750053 (2017)**

**Prof. Sujit Kumar Sardar**

1. On additively completely regular seminearrings, *Communications in Algebra* (Taylor and Francis), DOI: 10.1080/00927872.2017.1293970, Published online: 21 Feb 2017.(jointly with Rajlaxmi Mukherjee & Pavel Pal ).
2. Morita Invariants of Semirings-II, *Asian-European Journal of Mathematics* (World Scientific), doi: 10.1142/S1793557118500146) Published online : March 22, 2017(jointly with S.Gupta).
3. Fuzzy Radical and Fuzzy Primary Ideal of  $\Gamma$ -semigroups, *Bull Cal Math Soc*.108(6) 475-492(2016)(jointly with Manasi Mandal & Sami Kumar Majumder).



**Prof. Anup Bandyopadhyay**

1. A. Paul and A. Bandyopadhyay, Dust ion acoustic solitary structures in presence of nonthermal electrons and isothermal positrons, *Astrophys. Space Sci.* **361**, 172 (2016).
2. S. Sardar, A. Bandyopadhyay and K. P. Das, Stability of dust ion acoustic solitary waves in a collisionless unmagnetized nonthermal plasma in presence of isothermal positrons, *Phys. Plasmas* **23**, 073703 (2016).
3. S. Sardar, A. Bandyopadhyay and K. P. Das, Existence and stability of alternative dust ion acoustic solitary wave solution of the combined MKP-KP equation in nonthermal plasma, *Phys. Plasmas* **23**, 123706 (2016).
4. A. Paul, A. Bandyopadhyay and K. P. Das, Dust ion acoustic solitary structures in presence of nonthermally distributed electrons and positrons, *Phys. Plasmas* **24**, 013707 (2017).
5. A. Paul, A. Das and A. Bandyopadhyay, Dust ion acoustic solitary structures in the presence of isothermal positrons, *Plasma Phys. Rep.* **43**, 218 (2017).
6. S. Dalui, A. Bandyopadhyay and K. P. Das, Modulational instability of ion acoustic waves in a multi-species collisionless unmagnetized plasma consisting of nonthermal and isothermal electrons, *Phys. Plasmas* **24**, 042305 (2017).

**Prof. Dipak Kesh**

1. K. Ghosh, S. Samanta, S. Biswas, S. Rana, I. M. Elmojtaba, D. Kesh, J. Chattopadhyay, Stability and bifurcation analysis of an eco-epidemiological model with multiple delays, *Nonlinear Studies*, Vol 23( 2) 167-208 , 2016.
2. C. Maji, D. Kesh, D. Mukherjee, The Effect of Predator Density Dependent Transmission Rate in an Eco-Epidemic Model, *Differential Equation and Dynamical Systems*. 1-20, 2017 DOI: 10.1007/s12591-016-0342-6.

**Prof. Prabir Kumar Kundu**

1. Influence of variable fluid properties on nanofluid flow over a wedge with surface slip, K. Das, Nilankush Acharya & P. K. Kundu, *Arabian Journal for Science and Engineering* ( Springer), DOI: 10.1007/s13369-017-2499-x.
2. Radiative nanofluid flow over a heated stretching surface in presence of magnetic field, K. Das, Nilankush Acharya & P. K. Kundu, *Acta Technica CSAV*, **62**, 41- 56 (2017)
3. Multifarious slips perception on unsteady Casson nanofluid flow impinging on a stretching cylinder in the presence of solar radiation, P. K. Kundu & Amit Sarkar, *European Physical Journal Plus* (Springer), **132** , 144 (2017).
4. Stefan blowing effects on MHD bioconvection flow of a nanofluid in the presence of gyrotactic microorganisms with active and passive nanoparticles flux, Shib Sankar Giri, K. Das & P. K. Kundu, *European Physical Journal Plus* (Springer), **132**, 101 (2017).
5. Analytical approach to a Jeffrey nanofluid flow towards a stagnation point coexisting with magnetic field and melting heat effects, Tanmoy Chakraborty, K. Das & P. K. Kundu, *Journal of Molecular Liquids* (Elsevier), **229**, 443- 452 (2017).
6. Steady nanofluid flow with variable fluid properties over a linearly extending surface: A Lie group exploration, Md. Tausif Sk., K. Das & P. K. Kundu, *Alexandria Engineering Journal* (Elsevier), doi.org/10.1016/j.aej.2016.11.015.
7. Framing the impact of external magnetic field on bioconvection of a nanofluid flow containing gyrotactic microorganisms with convective boundary conditions, Tanmoy



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Chakraborty, K. Das & P. K. Kundu, Alexandria Engineering Journal (Elsevier), doi.org/10.1016/j.aej.2016.11.011.

8. Framing the features of MHD boundary layer flow past an unsteady stretching cylinder in presence of non-uniform heat source, Nilankush Acharya, K. Das & P. K. Kundu, Journal of Molecular Liquids (Elsevier), 225, 418- 425 (2017).
9. Non- Darcy effect on boundary layer flow of TiO<sub>2</sub>- water/ kerosene nanofluid over an extensible sheet, Md. Tausif Sk., K. Das & P. K. Kundu, European Physical Journal Plus (Springer), 131, 314 (2016).
10. Ramification of variable thickness on MHD TiO<sub>2</sub> and Ag nanofluid flow over a slendering stretching sheet using NDM, Nilankush Acharya, K. das & P. K. Kundu, European Physical Journal Plus (Springer), 131, 303 (2016).
11. On the onset of bioconvection in nanofluid containing gyrotactic microorganisms and nanoparticles saturating a non- Darcian porous medium, Amit sarkar, K. Das & P. K. Kundu, Journal of Molecular Liquids ( Elsevier), 223, 725- 733 (2016).
12. Multiple slip effects on bioconvection of nanofluid flow containing gyrotactic microorganisms and nanoparticles, Md. Tausif Sk., K. Das & P. K. Kundu, Journal of Molecular Liquids ( Elsevier), 220, 518- 526 (2016).
13. Framing the effects of solar radiation on magneto hydrodynamic bioconvection nanofluid flow in presence of gyrotactic microorganisms, Nilankush Acharya, K. Das & P. K. Kundu, Journal of Molecular Liquids (Elsevier), 222, 28- 37 (2016).
14. Effect of magnetic field on slip flow of nanofluid induced by a non-linear permeable stretching surface, Md. Tausif Sk., K. Das & P. K. Kundu, Applied Thermal Engineering (Elsevier), 104, 758- 766 (2016).
15. Verification of real- time WRF- ARW forecast in IMD during monsoon 2010, Ananda Kumar Das, P. K. Kundu, S. K. Roy Bhowmik & M. Rathee, Mausam, 67, 333-356 (2016).
16. The squeezing flow of Cu- water and Cu- kerosene nanofluids between two parallel plates, Nilankush Acharya, K. Das & P. K. Kundu, Alexandria Engineering Journal (Elsevier), 55, 1177- 1186 (2016).

#### **Major Achievements:**

##### **Prof. Sudeshna Banerjea**

**Following Research project sanctioned by DST has been selected under Excellent Category by SERB.**Project:(File Number): SR/S4/MS: 521/08

**Title of the Project :** "WATER WAVE PROPAGATION IN THE PRESENCE OF OBSTACLES"

**Duration:** 2009-2013

**Amount of the project:**14,66,080/-

**Funding Authority:** DST

**PI:** Sudeshna Banerjea

**CoPI:** Prof. B.N.Mandal

(Retd. Prof. and NASI Scientist,PAMU, Indian Statistical Institute,Kolkata)

##### **Prof. Nandadulal Bairagi**

Received **Indian National Science Academy – Czech Academy of Sciences Bilateral Exchange Program Award 2017.**

**Prof. Priti Kumar Roy**

1. **Poland Academy of Science Fellowship Awardee**, sponsored by The Poland Academy of Science under INSA-PAS Bilateral Exchange Program at University of Warsaw, Warsaw, Poland, **2016 (6th October to 7th November)**.
2. Acted as a **Joint Secretary**, “India Biodiversity Meet 2016” (IBM 2016) organized by Indian Statistical Institute, Kolkata in collaboration with Bio-Mathematical Society of India (BMSI), at ISI Kolkata during the period 21st November-23rd November 2016.

**Prof. Arindam Bhattacharyya**

1. Selected as a **Member of Editorial Board of Int. Journal of Math. Combinatorics** sponsored by the MADIS of Chinese Academy of Sciences and published in **USA and News Bulletin of Cal. Math. Society**.
2. Acted as **Local administrative and Scientific Coordinator** of “**CIMPA-INDIA Research School on Geometric Flows**”, held at Jadavpur University, West Bengal, Kolkata during December 1-12, 2016.
3. Acted as a **joint Convener** of “**International Conference on Applications of Mathematics in Topological Dynamics, Physical, Biological and Chemical Systems**” (ICAMTPBCS-2016) held during December 09-11, 2016 at the Calcutta Mathematical Society.
4. Acted as **Joint Organising Secretary** of Conference on “**Differential Geometry and its Applications**”, held during January 27-28, 2017, jointly organised by Department of Mathematics and Statistics, Deen Dayal Upadhyaya Gorakhpur University, Gorakhpur and Tensor Society.

**Prof. Bibhas Chandra Giri**

Received **best paper award** at the **1<sup>st</sup> Regional Science and Technology Congress** 2016, held at NITTTR, Kolkata during November 13-14, 2016.

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### PHYSICS

Phone : + 91-33-2413-8917  
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hod.physics@jadavpuruniversity.in

Over the time the Department of Physics has become a significant Centre of academic activities involving different branches of Physics. It has acquired distinction in research covering both theoretical and experimental Physics. It is ranked 2<sup>nd</sup> among all the Physics departments of all Indian universities (NISTADS, 2010) and ranked 11<sup>th</sup> among combined universities and research institutes (Current Science, vol. 97, no. 6 page 25, 2009) in India. It has received the following prestigious awards:

- UGC DSA II: 170 Lakhs (2014-2019)
- DST FIST II: 255 Lakhs (2012- 2017)
- DST- PURSE: 120 Lakhs (2015- 2019)

#### 1. A. Courses Offered:

- B. Sc., Physics (Honours)
- M. Sc., Physics (Day & Evening)
- M. Sc., Electronics
- Post M. Sc. Diploma in Medical Physics
- Ph.D.

**B. Number of Faculty Members:** 39+1

#### C. Research Centers/ Schools:

- Condensed Matter Physics Research Center. (CMPRC) Coordinator:** Prof. Sujata Tarafdar
- Nuclear & Particle Physics Research Center. Coordinator:** Prof. Argha Deb
- Relativity and Cosmology Research Center.**  
**Coordinator:** Dr. Abhijit Mukherjee

#### 2. List of faculty members and their area of research activity:

Sl. No.	Name	Designation	Specialization
1.	Dr. Argha Deb	Professor, Head of the Department	Nuclear and High Energy Physics
2.	Dr. Ajay Kumar Ghosh	Professor	Condensed Matter Physics
3.	Dr. Anuradha Mukhopadhyay	Professor	Liquid crystals
4.	Dr. Aparajita Bhattacharya	Professor	Hadron Physics, Quark Gluon, Plasma, Early Universe
5.	Dr. Asim Kumar Ghosh	Professor	Strongly Correlated Electrons and Magnetism

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6.	Dr. Basudev Ghosh	Professor		Plasma Physics and Electronics.
7.	Dr. Brajadulal Chattopadhyay	Professor		Biophysics, BioConcrete Technology
8.	Dr. Debasish Biswas	Professor		Laser Spectroscopy, Atomic and Molecular Physics
9.	Dr. Debasish Lohar	Professor		Atmospheric Physics
10.	Dr. Kalyan Kumar Chattopadhyay	Professor		Nanoscience and Technology, Semiconductors
11.	Dr. Mridul Bose	Professor		Atmospheric Physics, PlasmaPhysics
12.	Dr. Nabin Baran Manik	Professor		Organic Solar Cell, Low Temperature Characterisation of opto-devices, Instrumentation
13.	Dr. Ruma Ray	Professor		Experimental Condensed Matter Physics, Magnetism
14.	Dr. Sujata Tarafdar	Professor		Condensed Matter Physics, Statistical Physics
15.	Dr. Sukhen Das	Professor		X-ray Crystallography (Powderdiffraction), Biophysics Biological membrane), Glass and Ceramic Materials
16.	Dr. Tapas Ranjan Middy	Professor		Condensed Matter Physics, Mathematical Physics, Polymer
17.	Dr. Avijit Mukherjee	Associate Professor		String Theory and Mathematical Physics
18.	Dr. Jayoti Das	Associate Professor		Gas sensing application, Poroussilicon, Fabrication of Multilayer graphene thin film.
19.	Dr. Joydeep Chowdhury	Associate Professor		Molecular Spectroscopy
20.	Dr. Mitali Mandal	Associate Professor		Heavy Ion Physics Environmental Radioactivity
21.	Dr. Pabitra Kumar Paul	Associate Professor		Langmuir-Blodgett film, Molecular Professor spectroscopy
22.	Dr. Sanjay Kumar	Associate Professor		Electronics, Condensed Matter Physics (Expt), Nano-magnetism
23.	Dr. Subhankar Ray	Associate Professor		Theoretical Physics, Statistical Physics, Mathematical Physics
24.	Dr. Sulava Bhattacharyya	Associate Professor		Condensed Matter Physics
25.	Dr. Tapas Kumar Ballav	Associate Professor		Biomedical Instrumentation, Medical Modeling, Bio Physics.
26.	Dr. Abhijit Samanta	Assistant Professor		High Energy Physics
27.	Mr. Abiral Tamang	Assistant Professor		Biophysics, Materials Science

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28.	Dr. Bharati Tudu	Assistant Professor	Magnetic materials And Magnetization dynamics, X-rayscattering (Experimental)
29.	Dr. Dhruva Banerjee	Assistant Professor	Theoretical Physics
30.	Dr. Dipankar Mandal	Assistant Professor	Nanopiezotronics, Ferroelectric materials, Energy Harvesting devices
31.	Dr. Kaustuv Das	Assistant Professor (UGC-FRP)	Nanoscience and Technology, Material Science
32.	Dr. Partha Pratim Ray	Assistant Professor	Materials Science (LB film)
33.	Dr. Puspendu Sahu	Assistant Professor	X-ray diffraction, Electron Back Scattered Diffraction, Grain Boundary Engineering
34.	Dr. Saikat Kumar Seth	Assistant Professor	X-ray Crystallography and Crystal engineering
35.	Dr. Sanat Karmakar	Assistant Professor	Soft Condensed Matter Physics and Biophysics
36.	Dr. Sarmishtha Mandal	Assistant Professor	Condensed Matter Physics
37.	Dr. Sk. Saiyad Ali	Assistant Professor	Astrophysics and Cosmology
38.	Dr. Soumen Mandal	Assistant Professor	Astrophysics, Accretion processes, Gravitational wave
39.	Dr. Subhadipta Mukhopadhyay	Assistant Professor	Condensed Matter Physics, Electronics
40.	Dr. Subrata Sarkar	Assistant Professor	Material Science

### **3. Major Research Project:**

#### **No. of the Ongoing Projects and Project Completed During 2016-2017:**

1. **Prof. Argha Deb, PI**, “Real Time Radon Monitoring for Seismic Surveillance”, Funding agency: UGC, 5 years, Rs. 3.0 Lacs, ongoing.
2. **Prof. Asim Kumar Ghosh, PI**, “Studies on Heisenberg spin chains with Dzyaloshinskii-Moriya interaction in the presence of fields”, Funding Agency: DAE BRNS (No. 37(3)/14/16/2015/BRNS, 27.7.2015), Duration: 3 years, starting date: 3rd February, 2016. Amount: Rs. 18,75,008.00
3. **Prof. B. D. Chattopadhyay, PI** “A Study of Anti-Hyperglycemic properties of *Gymnedenia Orchidis Lindl* of *Orchdaceae* Family”, Funding agency: **Research Society for the study of Diabetes in India (RSSDI)**, Duration: **2 years/ 10 Lakh.**
4. **Prof. K. K. Chattopadhyay, PI**, “Synthesis of MgO-Carbon Refractory for Steel Making”, Funding Agency: Steel Authority of India- RDCIS (SAIL-RDCIS); 2013-16;
5. **Prof. K. K. Chattopadhyay (Co-ordinator)**, DST Nanomission project in Nanoscience & Technology for PG teaching and Research -DST- Nano Mission, Duration:2015 -2021.
6. **Prof. K. K. Chattopadhyay, PI**, “Development of wide band gap p-type transparent metal oxide chalcogenides thin films for oxide electronics; Funding Agency-DST; 2013-2016;

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7. **Prof. S. Das, PI**, Dr. A. Bhattacharya ( Co-PI), “Development Of Eco Friendly High Density Nanocrystalline Mullite Rich Ceramic Pigment/Filler from Low Cost Ceramic Materials/Flyash, Funding agency: UGC, Duration: 2013-2016, Amount (Rs.): 11,45,800/-
8. **Prof. S. Das, PI**, Prof. Papiya Nandy (CoPI), “Development and characterization of supercapacitors using various metal oxide electrode materials: A competitive study.” Funding Agency: DST (SR/S2/CMP-0118/2012), Duration: 2013-2016. Rs.13,00,000/-
9. **Prof. S. Das, Co-PI**, Prof. P. Nandy (PI), “Understanding the mechanism of action of Homeopathic medicine at the molecular level in nano-domains in vivo and in vitro system” Funding Agency: CCRH (File no. 17-209/2013-14/CCRH/Tech/Coll L/9), Duration: 2015-2018. Rs. 47,04,290/-
10. **Prof. S. Das (Co-PI)**, Prof. Chandan Kumar Sarkar, “High field effects and galvanomagnetic phenomena in quantum confined semiconductor structures at low lattice temperature”, Funding agency: DST (EMR/2014/000389), Duration: 2015-2018. Rs. 27,00,000/-
11. **Dr. Sanat Karmakar, PI**, “Preparation of Unilamellar vesicles and study their interaction with ions: A bio-mimetic system”, Funding agency: UGC [F. No:42/769/2013 (SR)] (01.04.2013-01.04.2017) Rs.11,58,000/-
12. **Dr. Sanat Karmakar, Co-PI**, “Study of Visco-elasticity in Biopolymers through Experiments on Spreading and Adhesion”, DST (D.O No: SR/S2/CMP-0127/2012), Duration: 25.07.2013-25.07.2016. Rs. 25,53,881/-
13. **Dr. Sanat Karmakar, Co-PI**, “Studies on the influence of ion beam irradiation coupled with gamma irradiation on the behaviour of high melting thermoplastics and polymer nano-composites”, Inter-University Accelerator Centre (IUAC), UGC, Duration: 21.04.2015 (Date of joining of the JRF) 21.04.2018, One research fellow +Annual contingency of Rs. 25,000 /-
14. **Dr.Sanat Karmakar, PI**, “Studies on the interaction of antimicrobial peptide with phospholipid membranes”, DBT, Govt. of India. (BT/PR8475/BRB/10/1248/2013), Duration: 21.06.2016-21.06.2019. Rs. 43,05,000/-
15. **Dr. Bharati Tudu, PI**, “Understanding the evolution of perpendicular magnetic anisotropy and domain structures in ferromagnetic multilayer thin films”, Funding agency: SERB, Duration: 4 years (March 2017-March 2021), Rs. 53.9 Lac
16. **Dr. Partha Pratim Ray, PI**, Dr. Chandan Banerjee, IEST, Shibpur, Howrah, “Realization of high efficiency interdigitated back-contact (IBC) silicon heterojunction (SHJ) solar cells with novel front structure”, Funding agency: Solar Energy Research Initiative, DST, Govt. of India, Rs. 63,27,200/-
17. **Dr. Partha Pratim Ray, PI**, “Development of solution processed conjugated polymer bulk heterojunction solar cell”, Funding agency : Department of Science and Technology, Govt. of WB.Rs. 2,00,000/-
18. **Dr. Pabitra Kumar Paul, PI**, “Photophysical investigations of the effects of nano-clay minerals on artificial biomembrane prepared by Langmuir-Blodgett method”, Funding agency: SERB, DST, Govt. of India, Duration: 2016-2020, Rs. 32,34,000/-
19. **Dr. Pabitra Kumar Paul, PI**, “Development of New Sensor Technology for Binding of Biomolecules in Metal or Metal Oxide Nanoparticle Matrix Through Exchange of



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Fluorescent Dye”, Funding agency: Department of Science and Technology, Govt. of West Bengal, Kolkata, Duration: 2015-2018, Rs. 15,48,800/-.

20. **Prof. Debasish Biswas, PI**, Modeling of Atmospheric Propagation of High Energy Laser, CHES, DRDO, ongoing, 2016, 10 Lakhs.
21. **Dr. Saikat Kumar Seth, PI**, Tuning supramolecular self-assembly of metal-organic complexes in the context of crystal engineering: A combined X-ray and Hirshfeld surface analysis, UGC (01/04/2013 to 31/03/2017).
22. **Dr. Dipankar Mandal, PI**, Fabrication of Flexible Piezoelectric Energy Harvester for Developing the Self Powering System, Funding agency: SERB, Govt. of India, Rs. 54.29 Lakhs (2014-2018).
23. **Dr. Dipankar Mandal, Co-PI**, Structural and Microstructural Characterization of Human kidney and gall-bladder Stones from Eastern India using X-ray powder diffraction, DST, Govt. of India, Rs. 22.43 Lakhs (2014-2016), Completed.

#### **Seminars and Conferences:**

##### **A. Invited Lectures Delivered/Session Chaired**

##### **Prof. Argha Deb**

8<sup>th</sup> Vidyasagar-S. N. Bose National Workshop 2017 on Nuclear and Astrophysics: Two opposite ends of Dimension (NATD 2017), 17-19 January, 2017, Vidyasagar University.

##### **Prof. K.K. Chattopadhyay**

1. Keynote Address at the National Conferences “Advances in Materials Science”, 24 - 25 March 2017, Guwahati University, Assam.
2. 2<sup>nd</sup> International Conference on Emerging Materials: Characterization & Application (EMCA-2017), March 15-17, 2017, Durgapur.
3. Diamond Harbour Women University, 11<sup>th</sup> July 2017.
4. Recent Advances and Fundamentals of Nanomaterials for Applications in Photonics(RAFNAP-2017)”, February 15-19, 2017, Dept. of Physics, NIT Durgapur.
5. National Seminar on Nanoscience and Nanotechnology: NSNN 2017”, 17<sup>th</sup> - 18<sup>th</sup> March, 2017.
6. Engineering & Materials for Sustainable Development” organized under the auspices of Global Initiative for Academic Networks (GIAN) Programme of MHRD, Government of India, 27<sup>th</sup> January and 2<sup>nd</sup> February, 2017, JU.
7. Platinum Jubilee Commemorative one-day (12<sup>th</sup> April, 2017) national level seminar on “Recent Advances in Materials Science”, Ramakrishna Mission Vidyamandira, Belur Math
8. Keynote lecture in Interface of Physical, Chemical and Biological Sciences (IPCBS-2017) and its interdisciplinary relevance from Dr. H.S. Gour Central University, Sagar.
9. International Conference International Conference on the topic Industry Interactive Innovation in Science, Engineering and Technology (I3SET), 25<sup>th</sup> -26<sup>th</sup> October, 2016, JIS College of Engineering.
10. National Conference on Recent Advances in Nanoscience and Nanotechnology (NCRANNT-2016) during 8th-9th Sept., 2016, NEHU, Assam.
11. International Conference on Functional Nanomaterials, 28-29<sup>th</sup> September, 2016, IEST, Shibpur, (W.B.).
12. National Level seminar on “Characterization of Nanomaterials”, September 22-23, 2016, Department of Physics, Ramananda College.

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13. “Technology Workshop on Current Workshop on Current & Emerging Technologies in Steel & Refractories (CREST-2016), 7-8<sup>th</sup> April, 2016, RDCIS, Ranchi.
14. Keynote Address in Nanomaterials: Emerging Trends, 16-17<sup>th</sup> September, 2016, Institute of Chemical Technology.
15. Keynote Address in High Frequency Application in Nanoelectronics and Photonic Devices, 11-15, July 2016, RCC Institute of Information Technology.
16. National Conference entitled ‘Nanotechnology as a carrier: an Indian perspective’, 12<sup>th</sup> May, 2016, JIS College of Engineering.
17. Workshop on Nanomaterials and Devices (NMD 16), 7-10 May, 2016, NIT Durgapur.
18. National Conference entitled “Emerging trends of Advance Science and Humanities for the applications in Technologchhny” 22<sup>nd</sup> April 2016, Batanagar Institute of Technology.
19. Research methodology in Nanotehnology, Department of Radio Physics and Electronics, 16-30 June, 2016, University of Calcutta.
20. UGC-sponsored National Conference on Recent Advances in Materials Science, 28-29 March, 2016 at Ramakrishna Mission Vidyamandira.
21. UGC-sponsored two day National Conference on “Recent Trends in Functional Materials in relation to Nanomaterials and Nanotechnology (RTFMNN)” 5<sup>th</sup> Feb., 2016, St. Paul’s C. M. College, Kolkata.
22. National Metallurgical Days (NMD 15) 14-15<sup>th</sup> November, 2015, PSG College of Technology, Coimbatore.
23. 60<sup>th</sup> DAE Solid State Physics Symposium, 21-24<sup>th</sup> December, 2015, Amity University, Noida.
24. Guru Nanak Institute of technology, Kolkata, 14<sup>th</sup> September, 2015.\
25. UGC sponsored National Seminar entitled “ Importance of Intermolecular interaction in Solid State X-ray Crystal Structure” 7-8 Sept, 2015, Mugberia Gangadhar Mahavidyalaya, W.B.
26. Indian Innovation in Materials Research (IIMR), June 25-27, 2015, CSIR-CGCRI.
27. Chaired a session in Materials Research (IIMR), June 25-27, 2015, CSIR-CGCRI. DST
28. Inspire science Camp, July 8, 2015, OM Dayal Institute of Technology, W.B.
29. Vidyasagar-Satyendranath Bose National workshop on Physics of Low dimensional systems (PLDS 2015), May 25-27<sup>th</sup>, 2015, Vidyasagar University.
30. Keynote address in Faculty Development Programme at RCC Institute of Information Technology, W.B. 6<sup>th</sup> July, 2015.
31. Refresher course entitled “interdisciplinary research using nanoscience and Nanotechnology” at School of Materials Science and Nanotechnology, Jadavpur University, March 23<sup>rd</sup>, 2015 as Co-ordinator.
32. Short Term Training Programme (STTP) on “Semiconductor: Devices & Applications” July 13- 17, 2015; NITTTR, Kolkata.

#### **Prof. B. Ghosh**

1. Session Chaired- National Conference on Plasma Physics and Nonlinear Dynamics, 23-24 March 2017, Department of Physics, JIS University, Agarpara, Kolkata-700109.
2. Session Chaired- National Seminar on Recent Developments in Plasma Physics, 27 February 2017, Department of Instrumentation Science, Jadavpur University.

**Dr. Joydeep Chowdhury**

1. "Template driven SERS active substrates by Langmuir-Blodgett technique" in the International Conference on Perspective of Vibrational Spectroscopy (ICOPVS-2016), Lucknow University, November 05-08, 2016.
2. "Raman Spectroscopy: A molecular detective", Lectures for Undergraduate Physics Hons students of Sammilani Mahavidyalaya, October 12, 2016.
3. "Self-assembly of metal nanocolloids entrapped in Langmuir Blodgett Film templates: Evidence of efficient SERS sensing platforms" in the International Conference on Functional Nanomaterials (ICFNM-2016), IEST, Shibpur, September 28 & 29, 2016.
4. "Raman spectroscopy: Sailing through the confluence of Physics & Biology" in UGC sponsored National Conference on Biophysics: Impact on Today's society, September 07 and 08, 2016.

**Dr. Sanjay Kumar**

"Overcoming impediments caused by superparamagnetism in ferrite nanoparticles" in the Silver Jubilee Research Conference of UGC-DAE CSR organized at UGC DAE CSR, Indore Centre held on 3<sup>rd</sup>-6<sup>th</sup> November, 2016.

**Dr. Sk. Saiyad Ali**

1. "The Epoch of Reionization", CTS, IIT Kharagpur, India, 18-22 July, 2016.
2. Contributory talk in the workshop "Probing the post-reionization era with low-frequency radio-interferometric array", 26-30<sup>th</sup> December 2016, RAC, Ooty, India.

**Dr. Soumen Mondal**

'CCSU Astronomy and Astrophysics Summer School 2016' held on during June 21 to July 12, 2016 organized by the department of Physics at Cotton college State University, Guwahati, Assam.

**Dr. Dipankar Mandal**

1. International Conference on Functional Materials (ICFM 2016), IIT Kharagpur, 12-14 December, 2016: Biocompatible Flexible Nanogenerator: An Approach of Sustainable Energy Generation in Isolated, Inaccessible and Indoor Environments.
2. International Conference on "Energy, Functional Materials & Nanotechnology" (ICEFN-2016), Kumaun University, Nainital.
3. National Conference on Emerging Trends in Condensed matter Physics & Materials Science (ETCMPMS-2016), University of Kalyani, 18-19 March, 2016.
4. National Conference on Emerging Trends in Condensed matter Physics & Materials Science (ETCMPMS-2016), University of Kalyani, 18-19 March, 2016.

**B. Seminar/Workshop/Conference/Symposium Attended:**

**Dr. Mitali Mandal**

1. DAE- BRNS Symposium on Nuclear Physics, Variable Energy Cyclotron Centre, Kolkata, December 4-9, 2016.
2. First Regional Science and Technology Congress 2016, Presidency Division, Kolkata, NITTTR, 13-14 November 2016.

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3. 24<sup>th</sup> state regional science and technology congress, Science City, 28<sup>th</sup> February-1<sup>st</sup> March 2017.
4. Twists and Turns in Physics Research (TTPR-2017), Jadavpur University, 21-22 February 2017.

**Dr. Partha Pratim Ray**

1. Sayantan Sil, Arka Dey, Rajkumar Jana, Mrinmay Das, Joydeep Datta, Joydeep Dhar, Soumi Halder, Pubali Das, Partha Pratim Ray\*, "A simple hydrothermal synthesis of nano-semiconducting Bornite ( $\text{Cu}_5\text{FeS}_4$ ) and its device applicability " - National Conference on Nanotechnology: Materials and Applications (NCoN:M&A), Department of Physics, Jadavpur University, India, June 16-17, 2016.
2. Arka Dey, Animesh Layek, Mrinmay Das, Joydeep Datta, Rajkumar Jana, Chandan Banerjee, Partha Pratim Ray\*, "Possibility to use hydrothermally synthesized  $\text{CuFeS}_2$  nanocomposite as an acceptor in hybrid solar cell" - National Conference on Nanotechnology: Materials and Applications (NCoN:M&A), Department of Physics, Jadavpur University, India, June 16-17, 2016.
3. Soumi Halder, Pubali das, Rajkumar Jana, Sayantan Sil, Mrinmay Das, Joydeep Datta, Joydeep Dhar, Arka Dey, Partha Pratim Ray\*, "Characterization of hydrothermally synthesized  $\text{MoS}_2$  based schottky barrier device" - National Conference on Nanotechnology: Materials and Applications (NCoN:M&A), Department of Physics, Jadavpur University, India, June 16-17, 2016.
4. Rajkumar Jana, Arka Dey, Sayantan Sil, Mrinmay Das, Joydeep Datta, Joydeep Dhar, Soumi Halder, Partha Pratim Ray\*, "Electrical properties of hydrothermally synthesized nanostructured  $\text{CuO}$  based device" -National Conference on Nanotechnology: Materials and Applications (NCoN:M&A), Department of Physics, Jadavpur University, India, June 16-17, 2016.
5. Sayantan Sil, Mrinmay Das, Joydeep Datta, Soumi Halder, Partha Pratim Ray\*, "Impedance spectroscopy study of hydrothermally synthesized nano-Semiconducting bornite ( $\text{Cu}_5\text{FeS}_4$ )"- International conference on functional nanomaterials (IC-FNM), 2016, IEST, Shibpur, India, September 28-29, 2016.
6. Arka Dey, Rajkumar Jana, Joydeep Dhar, Pubali Das, Partha Pratim Ray\*, "Gaussian distribution of inhomogeneous barrier height of  $\text{Al/ZnS/ITO}$  schottky barrier diodes", International conference on functional nanomaterials (IC-FNM), 2016, IEST, Shibpur, India, September 28-29, 2016.
7. Rajkumar Jana, Arka Dey, Sayantan Sil, Mrinmay Das, Partha Pratim Ray\*, "Investigation of light induced properties in hydrothermally synthesized  $\text{CuO}$  based schottky" - International conference on functional materials (ICFM), 2016 , Materials Science Centre, Indian Institute of Technology Kharagpur, Kharagpur -721302, India, December 12 - 14, 2016.
8. Joydeep Dhar, Sayantan Sil, Arka Dey, Dirtha Sanyal, Partha Pratim Ray\*, "Ion mediated charge transport in methylammonium lead iodide perovskite"- International conference on functional materials (ICFM), 2016, Materials Science Centre, Indian Institute of Technology Kharagpur, Kharagpur -721302, India , December 12 - 14, 2016.
9. Joydeep Datta, Mrinmay Das, Arka Dey, Sayantan Sil, Rajkumar Jana, Partha Pratim Ray\*, "Charge transport mechanism of  $\text{Al/Cd}_{1-x}\text{Zn}_{x\text{s}}/\text{ITO}$  schottky diode and its photosensing behavior" -International conference on emerging trends in nanomaterials

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science and technology(ICETNMST), 2017, National Institute of Technology (NIT) Nagaland, Chumukedima, Nagaland, India, January 4-6, 2017.

10. Mrinmay Das, Joydeep Datta, Soumi Halder, Partha Pratim Ray\*, “Hydrothermal synthesis of rGO-TiO<sub>2</sub> nanocomposite with different weight ratio of graphene and their application on schottky diode: major improvement in device performance” - Fourth International Symposium on Semiconductor Materials and Devices (ISSMD-4), Department of Physics, Jadavpur University, Kolkata, India , 8-10<sup>th</sup> March 2017.
11. Joydeep Dhar, Sayantan Sil, Arka Dey, Dirtha Sanyal, Partha Pratim Ray\* , “Understanding the origin of lattice defects in methylammonium lead iodide perovskite” - Fourth International Symposium on Semiconductor Materials and Devices (ISSMD-4), Department of Physics, Jadavpur University, Kolkata, India , 8-10<sup>th</sup> March 2017.
12. Arka Dey, Animesh Biswas, Soumi Halder , Partha Pratim Ray\* , “Effect of nanocrystallinity on the stability of large area silicon-hydrogen material based thin film solar cell”- Fourth International Symposium on Semiconductor Materials and Devices (ISSMD-4), Department of Physics, Jadavpur University, Kolkata, India , 8-10<sup>th</sup> March 2017.
13. Joydeep Datta, Mrinmay Das, Rajkumar Jana, Somnath Middy, Partha Pratim Ray\*, “Structural and optical characterization of Cd<sub>1-x</sub>Zn<sub>x</sub>S and its application in the schottky diode”-Fourth International Symposium on Semiconductor Materials and Devices (ISSMD-4), Department of Physics, Jadavpur University, Kolkata, India , 8-10<sup>th</sup> March 2017.
14. Soumi Halder, Mrinmay Das, Rajkumar Jana, Partha Pratim Ray\*, “Fabrication of MoS<sub>2</sub> based schottky device and investigation of its electrical properties”- Fourth International Symposium on Semiconductor Materials and Devices (ISSMD-4), Department of Physics, Jadavpur University, Kolkata, India , 8-10<sup>th</sup> March 2017.
15. Sayantan Sil, Arka Dey, Animesh Biswas, Partha Pratim Ray\*, “Temperature dependent current-voltage characteristics of Al/Cu<sub>5</sub>FeS<sub>4</sub> schottky diodes and determination of the richardson constant”, Fourth International Symposium on Semiconductor Materials and Devices (ISSMD-4), Department of Physics, Jadavpur University, Kolkata, India , 8-10<sup>th</sup> March 2017.
16. Rajkumar Jana, Arka Dey, Mrinmay Das, Soumi Halder, Pubali Das, Partha Pratim Ray\*, “Impressive photoresponse from hollow spherical Cu-Cu<sub>2</sub>O schottky device”, Fourth International Symposium on Semiconductor Materials and Devices (ISSMD-4), Department of Physics, Jadavpur University, Kolkata, India, 8-10<sup>th</sup> March 2017.
17. Soumi Halder, Mrinmay Das, Joydeep Datta, Partha Pratim Ray\* , “Effect of density of states and diffusion length on the stability of large area nanostructured silicon thin film solar cell” - The 2<sup>nd</sup> International Conference on Emerging Materials: Characterisation and Application (EMCA-2017), National Institute of Technology, Durgapur, Mahatma Gandhi Avenue, Durgapur - 713209, March 15-17, 2017.
18. Mrinmay Das, Joydeep Datta, Animesh Biswas, Soumi Halder, Partha Pratim Ray\* , “Enhanced charge transport properties of rGO-TiO<sub>2</sub> based schottky diode by tuning graphene content” -The 2<sup>nd</sup> International Conference on Emerging Materials: Characterisation and Application (EMCA-2017) ,National Institute of Technology, Durgapur, Mahatma Gandhi Avenue, Durgapur - 713209, March 15-17, 2017.
19. Sayantan Sil, Arka Dey, Soumi Halder, Joydeep Datta, Partha Pratim Ray\*, “Possibility to use hydrothermally synthesized CuFeS<sub>2</sub> nanocomposite as an acceptor in hybrid solar



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cell”- International Conference on Emerging Trends in Nanoscience and Nanotechnology (ICETINN 2017), Sikkim Manipal Institute of Technology (SMIT), Majitar, Sikkim, India, March 16-18, 2017.

20. Arka Dey, Joydeep Dhar, Sayantan Sil, Rajkumar Jana, Partha Pratim Ray\*, “Bias voltage dependent impedance spectroscopy analysis of hydrothermally synthesized ZnS nanoparticles”-International Conference on Emerging Trends in Nanoscience and Nanotechnology (ICETINN 2017), Sikkim Manipal Institute of Technology (SMIT), Majitar, Sikkim, India, March 16-18, 2017.
21. Rajkumar Jana, Arka Dey, Mrinmay Das, Pubali Das, Partha Pratim Ray\*, “Hydrothermally synthesized flake-like CuO nanoparticles and its photosensing behavior”- International Conference on Emerging Trends in Nanoscience and Nanotechnology (ICETINN 2017), Sikkim Manipal Institute of Technology (SMIT), Majitar, Sikkim, India, March 16-18, 2017.

#### Dr. Dipankar Mandal

1. “Unmodified Laponite clay induced  $\gamma$ -poly(vinylidene fluoride) for electrical energy storage application”, W. Rahman, S. K. Ghosh, T. R. Middy and **D. Mandal**, National Conference on **National Conference on Nanotechnology: Materials and Applications (NCoN:M&A)**, 16-17<sup>th</sup> June 2016, Jadavpur University.
2. “Self-Powered Piezoelectric Nanogenerator Based on Wurtzite ZnO Nanoparticles for Energy Harvesting Application”, W. Rahman, S. Garain, A. Sultana, T. R. Middy and **D. Mandal**, **International Conference on Functional Nanomaterials (IC-FNM 2016)**, 28 – 29<sup>th</sup> September 2016, Indian Institute of Engineering Science and Technology (IEST), Shibpur, WB.
3. “Electroactive Phase Formation in Nanoclay Doped Electrospinning Poly(vinylidene fluoride) Nanofibers for Energy Harvesting Application”, W. Rahman, S. Garain, T. R. Middy and **D. Mandal**, **Fourth International Symposium on Semiconductor Materials and Devices ISSMD 4**, 8<sup>th</sup>-10<sup>th</sup> March 2017, Jadavpur University.
4. “Self-Power Mechanical Energy Harvester Made With Electrospun  $\text{Eu}^{3+}$  Doped P(VDF-HFP)/Graphene Composite Nanofibers”, P Adhikary and **D. Mandal**, National Conference on **Nanotechnology: Materials and Applications (NCoN:M&A)**, June, 16-17<sup>th</sup> 2016, Jadavpur University.
5. “P(VDF-HFP)/Cerium Composite Films with Improved Dielectric Properties for energy Storage Applications” P. Adhikary and **D. Mandal**, **61<sup>st</sup> DAE Solid State Physics Symposium**, Sponsored by Board of Research in Nuclear Science, Department of Atomic Energy, Government of India, December 26-30<sup>th</sup> 2016, KIIT University, Bhubaneswar.
6. DNA Doped P(VDF-HFP)/MWCNT Composite Nanofibers for Self-Powered pH Sensing Applications, P. Adhikary, A. Tamang and **D. Mandal**, **Fourth International Symposium on Semiconductor Materials and Devices ISSMD 4**, 8<sup>th</sup>-10<sup>th</sup> March 2017, Jadavpur University.
7. In situ synthesis of bismuth oxide nanorods and fabrication of self-poled PVDF nanogenerator for mechanical energy harvesting, A. Biswas, S. Garain, **D. Mandal**, **61<sup>st</sup> DAE Solid State Physics Symposium**, Sponsored by Board of Research in Nuclear Science, Department of Atomic Energy, Government of India, December 26-30<sup>th</sup> 2016, KIIT University, Bhubaneswar.



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8. Cadmium Sulfide Nanoparticle Assisted Electroactive  $\beta$ -phase Nucleation in Flexible Poly(vinylidene fluoride) Film, K. Roy and **D. Mandal**, **Fourth International Symposium on Semiconductor Materials and Devices ISSMD 4**, 8<sup>th</sup>-10<sup>th</sup> March 2017, Jadavpur University.
9. Synthesis of Cerium Complex Electrocatalyst for the Improved Oxygen Evolution Reaction under UV-light Exposure, S. Garain, K. Barman, T. K. Sinha, S. Jasimuddin and **D. Mandal**, **Fourth International Symposium on Semiconductor Materials and Devices ISSMD 4**, 8<sup>th</sup>-10<sup>th</sup> March 2017, Jadavpur University.
10. Enhancement of Electroactive  $\beta$ -phase and Superior Dielectric Properties in Cerium Based Poly (vinylidene fluoride) Composite Films, S. Garain, S. Sen, K. Henkel, D. Schmeißer and **D. Mandal**, **International Conference on Functional Nanomaterials (IC-FNM 2016)**, 28 – 29<sup>th</sup> September 2016, Indian Institute of Engineering Science and Technology (IEST), Shibpur, WB.
11. Ce<sup>3+</sup> Complex Doped In situ Poled Electrospun PVDF/Graphene Composite Nanofiber: An Ultrasensitive Acoustic Nanogenerator, S. Garain, S. Jana and **D. Mandal**, National Conference on **Nanotechnology: Materials and Applications (NCoN:M&A)**, June, 16-17<sup>th</sup> 2016, Jadavpur University.
12. Human Health Monitoring System Based on Piezoelectric Smart Sensor, B. Mahanty, S. Mondal, U. Sahu, S. Patra and **D. Mandal**, **International Conference on Computer, Electrical & Communication Engineering (ICCECE)**, December 16-17<sup>th</sup>, 2016, Saltlake, Kolkata.
13. Self-Powered Flexible Electronics Based on Self-Poled “Ferroelectric” Nanogenerator. S. K. Ghosh and **D. Mandal**, **MRS Spring Meeting & Exhibit**, March 28<sup>th</sup>-April 1<sup>st</sup>, 2016. Phoenix, Arizona, USA.
14. Self-powered Flexible Electronics Based on Self-poled “Ferroelectric” Nanogenerator. S. K. Ghosh, T. K. Sinha, B. Mahanty and **D. Mandal**, **NanoWorld Conference**. April 4<sup>th</sup> -6<sup>th</sup>, 2016. Boston, USA.
15. Wireless Nanogenerator Enabled Self-powered Flexible Electronics. Oral presentation, S. K. Ghosh, T. K. Sinha, B. Mahanty and **D. Mandal**, National Conference on **Nanotechnology: Materials and Applications (NCoN:M&A)**, June, 16-17<sup>th</sup> 2016, Jadavpur University.
16. Natural Bio-Waste Based Flexible Mechanical Energy Harvester: Fish Scale Generates Piezoelectricity, S. K. Ghosh and **D. Mandal**, **Fourth International Symposium on Semiconductor Materials and Devices ISSMD 4**, 8<sup>th</sup>-10<sup>th</sup> March 2017, Jadavpur University.
17. Fabrication of PVDF-ZnS composite nanofiber mats by electrospinning for acoustic energy harvesting application, A. Sultana, M. M. Alam, T. R. Middy and **D. Mandal**, National Conference on **Nanotechnology: Materials and Applications (NCoN:M&A)**, June, 16-17<sup>th</sup> 2016, Jadavpur University, Kolkata.
18. The preparation of -poly(vinylidene fluoride)/ZnS nanocomposite for energy storage application. A. Sultana, M. M. Alam, T. R. Middy and **D. Mandal**, **International Conference on Functional Nanomaterials (IC-FNM 2016)**, 28 – 29<sup>th</sup> September 2016, Indian Institute of Engineering Science and Technology (IEST), Shibpur, WB.
19. Flexible Energy Harvesting Device with Piezoelectric ZnS Nanorods and Polyaniline as Conducting Filler, A. Sultana, M. M. Alam, T. R. Middy and **D. Mandal**, **Fourth**

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**International Symposium on Semiconductor Materials and Devices ISSMD 4,8<sup>th</sup>-10<sup>th</sup> March 2017, Jadavpur University.**

20. Fabrication of Composite PVDF-ZnO Nanofiber Mats by Electrospinning for Energy Scavenging Application, M. M. Alam, A. Sultana and **D. Mandal**, National Conference on **Nanotechnology: Materials and Applications (NCoN:M&A)**, June, 16-17<sup>th</sup> 2016, Jadavpur University, Kolkata.
21. Fabrication of Lead free Flexible Electrospun Hybrid Nanofibers for Designing Mechanical Energy Harvester. M. M. Alam and **D. Mandal**, **61<sup>st</sup> DAE Solid State Physics Symposium**, Sponsored by Board of Research in Nuclear Science, Department of Atomic Energy, Government of India, December 26-30<sup>th</sup> 2016, KIIT University, Bhubaneswar.
22. Preparation of Cellulose Nanofibers Mat from Waste Cigarette Butts: A Potential Recycling Approach, M. M. Alam and **D. Mandal**, **Fourth International Symposium on Semiconductor Materials and Devices ISSMD 4,8<sup>th</sup>-10<sup>th</sup> March 2017, Jadavpur University, India.**
23. A Simple Fabrication Strategy of Flexible and Wearable Piezoelectric Nanogenerator for Energy Harvesting Applications, K. Maity and **D. Mandal**, National Conference on **Nanotechnology: Materials and Applications (NCoN:M&A)**, June, 16-17<sup>th</sup> 2016, Jadavpur University, Kolkata.
24. 2D MoS<sub>2</sub> Derived Flexible Piezoelectric Nanogenerator for Portable Electronics and Speech Signal Monitoring, K. Maity and **D. Mandal**, **Fourth International Symposium on Semiconductor Materials and Devices ISSMD 4,8<sup>th</sup>-10<sup>th</sup> March 2017, Jadavpur University.**

**Dr. Sk. Saiyad Ali**

1. Participated in the conference on “ 7th Topical conference on Gravitation, Cosmology and Astrophysics - Eastern Region (TCGCA-ER7)”, Department of Theoretical Physics, IACS, Jadavpur, Kolkata, March 25, 2017.
2. Organized two days seminar on “Twists and Turns in Physics Research: Special Emphasis on Condensed Matter and Biophysics (TTPR-2017)”, Jadavpur University, Kolkata, India, 21-22 February, 2017.
3. Participated in the national conference on “Application of generalized calculus in physics and applied mathematics”, Jadavpur University, Kolkata, India, April 26-27, 2016.

**Dr. S. Kumar**

“Study on magnetic and hyperfine properties of mechanically milled Ni Zn ferrite nanoparticles” in International Conference on Magnetic Materials and Applications (ICMAGMA-2017) organized at Hyderabad held on 1<sup>st</sup> to 3<sup>rd</sup> February, 2017.

**Dr. Sanat Karmakar**

1. 26-27th April, 2016, Application of Generalized Calculus in Physics and Applied Mathematics, CMPRC, JU.
2. 16-19th June, 2016, National Conference on Nanotechnology: Materials and Applications (NCoN:M&A), School of Material Science Nanotechnology, Jadavpur University.

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3. 12-16th December, 2016 International Conference on Soft materials. MNIT, Department of Physics, Jaipur.

#### **Dr. Bharati Tudu**

Oral: APS March meeting 2017, March 13-17, 2017, New Orleans, Louisiana (USA).

#### **Dr. Soumen Mondal**

1. Attended and completed on campus UGC sponsored refresher course on the 'Current Environmental Issues: Impact, Measurement and Mitigation' during 02<sup>nd</sup> to 21<sup>st</sup> January 2017 organized by School of Environmental Studies at Jadavpur University.
2. Presented a poster entitled 'On the evidence of the double peak KHz quasi periodic oscillation (QPOs) in the X-ray fluxes emitting from Galactic Micro-quasars' in the two day national conference on 'Advancement of Interdisciplinary Sciences – 2017' organized by science forum, Bhairab Ganguly College in association with West Bengal State University during 27<sup>th</sup> -28<sup>th</sup> January 2017.
3. Presented talk on "Probing the accretion disk with Gravitational wave" at 'Physics and Applied Mathematics Researchers' Meet 2017 (PAMRM'17) organized by the Physics and Applied Mathematics Unit, Indian Statistical Institute, Kolkata, during 14th to 16th of March, 2017.
4. Presented talk on 'Equation of State in Accretion and Wind Flows' at 'The Topical Conference on Gravity, Cosmology and Astrophysics-Eastern Region' (TCGCA-ER7) held at Indian Association for the Cultivation of Science, Kolkata on March 25<sup>th</sup> , 2017.

#### **Seminar/Workshop/Conferences/Symposium Organized:**

1. Organized International Symposium for Semiconductor Materials and Devices (ISSMD 4) at Jadavpur University ; during March 8-9, 2017.
2. A National Conference entitled "National Conference on Nanotechnology: Materials to Applications" was organized (Prof. K.K. Chattopadhyay as Convener) during June 16-17 (2016).
3. Twists and Turns in Physics Research (TTPR-2017), Jadavpur University, 21-22 February 2017 (Co-coordinator: Dr. Dipankar Mandal, Dr. Subrata Sarkar, Dr. Saikat Seth and Dr. Sk. Saiyad Ali.

#### **B. Articles Published in Journals:**

##### **Prof. A. Deb**

1. D. Ghosh, R. Saha, **A. Deb**, Study of phase transition and its dependence on target excitation using fractal properties of pionization process , Canadian J.of Phys., In press.
2. M. Mondal, S. Biswas Ghosh, D. Ghosh, **A. Deb**, Forward-backward multiplicity correlations in ring like and jet like events in <sup>16</sup>O–AgBr interactions at 60 AGeV, Phys. Part. Nucl. Lett. , 2017, 14,459-464.
3. S. Chowdhury, **A. Deb**, Md. Nurujjaman, C. Barman, Identification of pre-seismic anomalies of soil radon-222 signal using Hilbert–Huang transform, Nat. Hazards 2017, 87, 1587-1606.
4. M. Mondal, A. Mondal, D. Ghosh and **A. Deb**, Target excitation dependent erratic fluctuation of pions in hadron – nucleus interactions, Can. J Phys. 94 (2016) 112.

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5. **A. Deb**, M. Gazi, G. Bhoumik, A. Naskar, C. Barman, Exposure to underground Radon in and around Kolkata Municipal Corporation area: An exhaustive study, *J of Radioanal and Nucl Chem*, 2016, 311, 375-384.
6. **A. Deb**, M. Gazi, C. Barman, Anomalous soil radon fluctuations – Signal of earthquakes in Nepal and Eastern India regions, *J. Earth Syst. Sc.*, 2016, 125, 1657-1665.
7. C. Barman, D. Ghose, **A. Deb**, Detection of earthquake induced radon precursors by Hilbert Huang Transform, *J. Appl. Geophys.*, 2016, 133, 123-131.
8. J. Akhter, L. Das, **A. Deb**, CMIP5 ensemble-based spatial rainfall projection over homogeneous zones of India, *Climate Dynamics* (in press) DOI: 10.1007/s00382-016-3409-8.

#### Prof. Asim Kumar Ghosh

9. Susobhan Paul and **Asim Kumar Ghosh**, Ground state properties of the bond alternating spin-1/2 anisotropic Heisenberg chain; *Condens Matter Phys* **20**, 23701 (1-16), 2017.

#### Prof. Anuradha Mukhopadhyay

10. R. Ghosh, **A. Bhattacharya**, B. Chakrabarti, Temperature Dependence of Upsilon suppression in Quark Gluon Plasma and Study of its Critical Parameters, *Acta Physica Polonica.*; Vol.**47B**. No.8. 2045-2054 (2016).
11. **A. Bhattacharya**, R. Ghosh and B. Chakrabarti, Meson and Diquark Condensates in the NJL Model and the Fermi Momentum, *Int. J. Mod. Phys. (IJMPA)*; Vol **31A** (28n29), 1645043 (11), (2016).
12. **A. Bhattacharya**, R. Saha, R. Ghosh, A Study on the Form Factors of Hadrons, *J. Adv. Phys.*, Vol.**11**. No.8, 3961-3965 (2016).
13. R. Ghosh, **A. Bhattacharya**, B. Chakrabarti, A Study on Diquark and Meson Condensation in NJL Model and Fermi Momentum, *Theoretical and Mathematical Physics* Vol **190**, No 1, 91, (2017). *Theoreticheskaya i Matematicheskaya Fizika* vol 190 No1. 104 (2017) (Russian version).
14. P. Ghosh, B. Saha, G. C. Pariyar, A. Tamang, R. Subba. Fe<sub>3</sub>O<sub>4</sub>-nanoparticles catalyzed an efficient synthesis of nitriles from aldehydes." *Tetrahedron Lett.*, 2016, 57(32), 3618-3621.

#### Mr. Abiral Tamang

15. Y.G. Mohanta, S. K. Panda, K. Biswas, **A. Tamang**, J. Bandyopadhyay, D. De, D. Mohanta, A. K. Bastia. Biogenic synthesis of silver nanoparticles from *Cassia fistula* (Linn.): In vitro assessment of their antioxidant, antimicrobial and cytotoxic activities. *IET Nanobiotechnol.*, 2016, 10 (6), 438-444.
16. A. Kamath, D. K. Mishra, D. Brahman, G. Pilet, B. Sinha, **A. Tamang**. Poly [diaquo (1, 10-phenanthroline-κ 2 N 1: N 10)(i 2-sulphato-κ 2O:O2 )copper (ii)]: hydrothermal synthesis, crystal structure and magnetic properties.. *RSC Adv.*, 2016, 6(51), 46030-46036.
17. Ghosh, P., B. Saha, G. C. Pariyar, **A. Tamang**, R. Subba. "Synthesis of Nitriles from Aldehydes on Ferrite Nanoparticles." *Synfacts*, 2016, 12(11), 1213-1213.

#### Prof. B. Ghosh

18. H Sahoo, **B Ghosh**, K K Mondal, Propagation of Hydro-magnetic Waves in Magnetized Dust-Ion Plasma in Presence of Dust Charge Variation and Streaming', *African Review of Physics*, 2016, 11, 279-286, 12.12.2016.

**Annual Report 2016-17**

19. S Banerjee and **B Ghosh**, 'Effect of doping on amplitude modulation of space-charge wave in semiconductor quantum plasma'- *Indian Journal of Physics*, 2016, 91, 461-469, 02.12.2016.
20. M Karmakar, S K Azharuddin, **B Ghosh** and S D Singh. 'On the two heating rate method of determination of the activation energy of TL peaks under different heating schemes'- *International Journal of Luminescence and applications*, 2016, 6, 156-160, September 2016.
21. H Sahoo, **B Ghosh**, K K Mondal, Linear instability of dust acoustic waves in a magnetized gravitating plasma in the presence of dust streaming—*Turkish Journal of Physics*, 2017, 41, 256-261, 28.02.2017.

**Prof. B. D. Chattopadhyay**

22. A. K. Singh, C, Ratnasekhar, B. P. Chaudhari, D, Singh, **B. D. Chattopadhyay**, M. K. R. Mudiam, Evaluating Metabolic Responses in Mice to Nanosized Titanium Dioxide Particles Using Gas Chromatography Mass Spectrometry Based Metabolomics. *Austin J. Anal. Pharma. Chem.* 2017, 4(2), 1085 – 1093.
23. B. Chaudhuri, T. Chowdhury, **B. D. Chattopadhyay**, Comparative Analysis of Microbial Diversity in two Hot Springs of Bakreshwar, West Bengal, India. *Genomics Data*, 2017, 12, 122 – 129.
24. S. Das, **B. D. Chattopadhyay**, S. Sahoo, Comparative Analysis of Predicted Gene Expression among Crenarchaeal Genomes, *Genomics and Informatics*, 2017, 15(1), 38-47.
25. S. Show, C. Ghosal, **B. D. Chattopadhyay**, Root Extracts (*Gymnadenia orchidis* Lindl) Facilitated Rapid Synthesis of Fluorescent Silver Nanoparticles (Ag-NPs) for Various Biological Applications. *J. Biomat. Nanobiotechnol.* 2017, 8, 109-124.
26. S. Show, **B. D. Chattopadhyay**, Protein Mediated Silica Particles with pH Controlled Porosity and Morphology. *Advan. Microbiol.* 2016, 6, 986-998.
27. N. Alam, M. Sarkar, T. Chowdhury, D. Ghosh, **B. D. Chattopadhyay**, Characterization of a Novel MDH1 Bacterium from a Virgin Hot Spring Applicable for Gold Nanoparticle (GNPs) Synthesis. *Advan. Microbiol.* 2016, 6, 724-732.
28. B. Chaudhuri, N. Alam, M. Sarkar, T. Chowdhury, **B. D. Chattopadhyay**, Phylogenetic Characterization of BKH3 Bacterium Isolated from a Hot Spring Consortium of Bakreshwar (India) and Its Application. *Advan. Microbiol.* 2016, 6, 453 – 461.

**Dr. Bharati Tudu**

29. 1.K. Tian, **B. Tudu**, A. Tiwari, Growth and characterization of zinc oxide thin films on flexible substrates at low temperature using pulsed laser deposition, *Vacuum*. 2017, doi:10.1016/j.vacuum.2017.01.018.
30. 2.**B. Tudu**, A. Tiwari, Recent Developments in Perpendicular Magnetic Anisotropy Thin Films for Data Storage Applications, *Vacuum*. 2017 doi:10.1016/j.vacuum.2017.01.031.
31. 3.Y. Yin, **B. Tudu**, A. Tiwari, Recent advances in oxide thermoelectric materials and modules, *Vacuum*. 2017, doi:10.1016/j.vacuum.2017.04.015.
32. 4.M.G. Silly, T. Ferté, M.A. Tordeux, D. Pierucci, N. Beaulieu, C. Chauvet, F. Pressacco, F. Sirotti, H. Popescu, V. Lopez-Flores, M. Tortarolo, M. Sacchi, N. Jaouen, P. Hollander,



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J.P. Ricaud, N. Bergeard, C. Boeglin, **B. Tudu**, R. Delaunay, J. Luning, G. Malinowski, M. Hehn, C. Baumier, F. Fortuna, D. Krizmancic, L. Stebel, R. Sergo, G. Cautero, Pump” probe experiments at the TEMPO beamline using the low- $\alpha$  operation mode of Synchrotron SOLEIL, J. Synchrotron Radiat. 2017, 24. doi:10.1107/S1600577517007913.

**Prof. Debasis Biswas**

33. M. Sanfui, D. K. Haldar, **Debasish Biswas**, Studies on different geophysical and extra-terrestrial events within the Earth-ionosphere cavity in terms of ULF/ELF/VLF radiowaves, *Astrophys. Space Sci.*, 2016, **361**(10), 325.

**Dr. Dipankar Mandal**

34. S. K. Ghosh and **D. Mandal\***, Efficient natural piezoelectric nanogenerator: Electricity generation from fish swim bladder, *Nano Energy*(IF~11.5), 2016, 28, 356–365.
35. S. Garain, K. Barman, T. K. Sinha, S. Jasimuddin, J. Haeberle, K. Henkel, D. Schmeisser and **D. Mandal\***, Cerium(III) Complex Modified Gold Electrode: An Efficient Electrocatalyst for the Oxygen Evolution Reaction, *ACS Appl. Mater. Interfaces* 2016, 8, 21294"21301.
36. S. K. Ghosh and **D. Mandal\***, High-performance bio-piezoelectric nanogenerator made with fish scale, *Appl. Phys. Lett.* 2016, 109, 103701(1-5). (**Selected in AIP press release and different print and electronic media. It was also selected as editor's pick**).
37. S. Jana, S. Garain, S. K. Ghosh, S. Sen and **D. Mandal\***, The preparation of  $\alpha$ -crystalline non-electrically poled photoluminescent ZnO–PVDF nanocomposite film for wearable nanogenerators, *Nanotechnology* 2016, 27, 445403"445403.
38. Md. M. Alam and **D. Mandal\***, Native Cellulose Microfiber-Based Hybrid Piezoelectric Generator for Mechanical Energy Harvesting Utility, *ACS Appl. Mater. Interfaces*, 2016, 8 (3), 1555–1558 (**Selected in ACS press release and different print and electronic media**).
39. S. K. Ghosh, T. K. Sinha, B. Mahanty, S. Jana and **D. Mandal\***, Porous polymer composite membrane based nanogenerator: A realization of self-powered wireless green energy source for smart electronics applications, *J. Appl. Phys.* 2016, 120, 174501(1"11).
40. T. K. Sinha, S. K. Ghosh, R. Maiti, S. Jana, B. Adhikari, **D. Mandal\*** and S. K. Ray\*, Graphene-silver-induced self-polarized PVDF-based flexible plasmonic nanogenerator toward the realization for new class of self powered optical sensor, *ACS Appl. Mater. Interfaces*, 2016, 8 (24), 14986–14993.
41. S. K. Ghosh, A. Biswas, S. Sen, C. Das, K. Henkel, D. Schmeisser and **D. Mandal\***, Yb<sup>3+</sup> assisted self-polarized PVDF based ferroelectric nanogenerator: A facile strategy of highly efficient mechanical energy harvester fabrication, *Nano Energy* (IF~11.5), 2016, 30, 621–629.
42. S. K. Ghosh, W. Rahman, T. R. Middya, S. Sen and **D. Mandal\***, Improved breakdown strength and electrical energy storage performance of  $\gamma$ -poly(vinylidene fluoride)/unmodified montmorillonite clay nano-dielectrics, *Nanotechnology*, 2016, 27, 215401.
43. P. Adhikary, S. Garain S. Ram and **D. Mandal\***, Flexible hybrid Eu<sup>3+</sup> doped P(VDF-HFP) nanocomposite film possess hypersensitive electronic transitions and piezoelectric throughput, *J.Poly.Sci., B:Poly.Phy.*, 2016, 54, 2335–2345.



### Annual Report 2016-17

44. K. Maity, B. Mahanty, T. K. Sinha, S. Garain, A. Biswas, S. K. Ghosh, S. Manna, S. K. Ray and **D. Mandal\***, Two-Dimensional Piezoelectric MoS<sub>2</sub>-Modulated Nanogenerator and Nanosensor Made of Poly (vinylidene Fluoride) Nanofiber Webs for Self-Powered Electronics and Robotics, *Energy Technol.* 2017, 5, 234-243.
45. M. M. Alam, S. K. Ghosh, D. Sarkar, S. Sen and **D. Mandal\***, Improved dielectric constant and breakdown strength of  $\gamma$ -phase dominant super toughened PVDF/TiO<sub>2</sub> nanocomposite film: an excellent material for energy storage application and piezoelectric throughput, *Nanotechnology* 2017, 28, 015503-015512.
46. P. Adhikary, A. Biswas and **D. Mandal\***, Improved sensitivity of wearable nanogenerators made of electrospun Eu<sup>3+</sup> doped P(VDF-HFP)/graphene composite nanofibers for self-powered voice recognition, *Nanotechnology* 2016, 27, 495501-495511.
47. A. Sultana, M. M. Alam, A. Biswas, T. Ranjan Mridha and **D. Mandal\***, Fabrication of wearable semiconducting piezoelectric nanogenerator made with electrospun-derived zinc sulphide nanorods and poly(vinyl alcohol) nanofibers, *Transl. Mater. Res.* 2016, 3, 045001-045011.
48. B. Mahanty, S. Kumar Ghosh, S. Garain and **D. Mandal\***, An effective flexible wireless energy harvester/sensor based on porous electret piezoelectric polymer, *Mater. Chem. Phys.* 2017, 186, 327-332.
49. S. K. Ghosh and **D. Mandal**, Bio-assembled, piezoelectric prawn shell made self-powered wearable sensor for non-invasive physiological signal monitoring, *Appl. Phys. Lett.* 2017, 110, 123701(1-5).
50. S. K. Ghosh, P. Adhikary, S. Jana, A. Biswas, V. Sencadas, S. D. Gupta, B. Tudu and **D. Mandal\***, 2017, Electrospun Gelatin Nanofiber Based Self-Powered Bio-e-Skin for Health Care Monitoring, *Nano Energy (IF~11.5)*, 2017, 36, 166-175.
51. P. Adhikary and **D. Mandal\***, Enhanced electro-active phase in a luminescent P(VDF-HFP)/Zn<sup>2+</sup> flexible composite film for piezoelectric based energy harvesting and self-powered UV light detection, *Phys. Chem. Chem. Phys.*, 2017, 19, 17789-177798.
52. A. Biswas, K. Henkel, D. Schmeisser and **D. Mandal\***, Comparison of the thermal stability of the  $\alpha$ ,  $\beta$  and  $\gamma$  phases in poly (vinylidene fluoride) based on in situ thermal Fourier transform infrared spectroscopy, *Phase Trans.*, 2017.
53. M. M. Alam, A. Sultana, D. Sarkar, S. Sen and **D. Mandal\***, Electroactive  $\beta$ -crystalline phase inclusion and photoluminescence response of heat controlled spin coated PVDF/TiO<sub>2</sub> free standing nanocomposite film for nanogenerator and active nanosensor, *Nanotechnology*, 2017.

#### **Dr. Joydeep Chowdhury**

54. Sannak Dutta Roy, Pinaki Sett, Manash Ghosh and **Joydeep Chowdhury\***, Charge transfer mechanism and the adsorptive stance of Methylene Blue on Gold Nanocolloids: A vis-à-vis aftermath: *J. Raman Spectrosc.*, 2017, **48**, 38 - 45.
55. Pinaki Sett, Shirsendu Datta, **Joydeep Chowdhury**, Manash Ghosh, Prabal Kumar Mallick, Spectroscopic and Raman excitation profile studies of 3-benzoylpyridine: *Ind. J. Phys.* (DOI: 10.1007/s12648-017-0970-x).
56. Sougata Sarkar, **Joydeep Chowdhury**, Soumen Dutta, Tarasankar Pal, A pH dependent Raman and surface enhanced Raman spectroscopic studies of citrazinic acid aided by theoretical calculations: *Spectrochim. Acta Part A*, 2016, **169**, 108 - 115.

**Annual Report 2016-17**

57. Paulami Mandal, Maitree Bhattacharya, and **Joydeep Chowdhury**, Targeting G-quadruplex DNA and B-DNA with a natural alkaloid: A comparative spectroscopic study: *RSC Adv.*, 2016, **6**, 109846 – 109856.
58. Somsubhra Saha, Manash Ghosh, Bipan Dutta, **Joydeep Chowdhury\***, Silver coated gold nanocolloids entrapped in organized Langmuir–Blodgett Film of stearic acid: Potential evidence of a new SERS active substrate: *Appl. Surf. Sci.*, 2016, **362**, 364 – 373.
59. Somsubhra Saha, Manash Ghosh, Bipan Dutta and **Joydeep Chowdhury\***, Self-assembly of silver nanocolloids in the Langmuir-Blodgett Film of stearic acid: Evidence of an efficient SERS sensing platform: *J. Raman Spectrosc.*, 2016, **47**, 168 – 176.

**Dr. J. Das**

60. Surface topography and hydrogen sensor response of APCVD grown multilayer graphene thin films, D Dutta, E Bontempi, Y You, S Sinha, **J Das**, S. K. Hazra, C. K. Sarkar, Sukumar Basu, *Journal of Materials Science: Materials in Electronics*, (2017) 28(1) 157-166 doi: 10.1007/s10854-016-5506-1.
61. Piezoelectric interaction in controlling the effective electron temperature and the non-ohmic mobility characteristics in GaN and other III-V compounds at low lattice temperature, B. Das, A. BASU, **J. Das**, D.P. Bhattacharya, *Canadian Journal of Physics* (2017) 95(2) 167-172.
62. Influence of metal contacts on graphene based chemical sensor devices, D. Dutta, **J. Das**, S.K. Hazra, S. Basu, *Journal of Microelectronics and Solid State Devices* (2016) 3 (3) ISSN: 2455-3336.
63. Electrical transport mechanism in Au-modified nano porous silicon, **J. Das**, S. Pradhan, S.M. Hossain, *Journal of Nanomaterials and Molecular Nanotechnology*, (2016) 5(2) doi: 10.4172/2324-8777.1000180.
64. Temperature and hydrogen gas dependent reversible inversion of n/p- type conductivity in CVD grown multilayer graphene film, D. Dutta, S.K. Hazra, **J. Das**, C.K. Sarkar, S. Basu, *Journal of Electronic Materials*, (2016) 45(6) 2861-2869, DOI: 10.1007/s11664-016-4381-0
65. Enhanced sensing properties of ZnO-SnO<sub>2</sub> based composite type gas sensor, B. Mondal, **J. Das**, C. Roychoudhuri, N. Mukherjee, H. Saha, *Eur. Phys. J. Appl. Phys.*, (2016) 73 (1) 10301 DOI: <http://dx.doi.org/10.1051/epjap/2015150161>.

**Dr. Mitali Mondal**

66. **M. Mondal**, S. Biswas Ghosh, D. Ghosh, A. Deb, *Forward–backward multiplicity correlations in ring like and jet like events in <sup>16</sup>O–AgBr interactions at 60 AGeV*, *Phys. Part. Nucl.Lett.* , 2017, 14,459-464.
67. **M.Mondal**, A. Mondal, D. Ghosh and A. Deb, *Target excitation dependent erratic fluctuation of pions in hadron – nucleus interactions*, *Can. J Phys.* 94 (2016) 112.

**Dr. Mridul Bose**

68. Arindam Mishra, Suman Saha, Chittaranjan Hens, Prodyot K. Roy, **Mridul Bose**, Patrick Louodop, Hilda A. Cerdeira, and Syamal K. Dana , Coherent libration to coherent rotational dynamics via chimeralike states and clustering in a Josephson junction array. *Physical Review E* 95, 010201(R) (2017)

69. Sabbir Ahmed, Debabrata Chakrabarty; Subroto Mukherjee; **Mridul Bose**; and Shantanu Bhowmik, Characteristics of IPN Adhesive Bonding of Polyether Imide to Titanium for Aerospace Application, *J. Aerosp. Eng.*, 04017020-1, 2017. DOI:10.1061/(ASCE)AS.1943-5525.0000725.©2017, American Society of Civil Engineers.
70. Sanjib Sarkar, Chiranjib Barman, Malay Mondal, **M Bose**, & S Mukherjee, Analysis of defects in externally driven dust-density wavefronts in cogenerated dusty plasma using the time-resolved Hilbert–Huang transform *J. Phys. D: Appl. Phys.* 49, 205201, 2016.

**Dr. P. P. Ray**

71. K. Naskar, A. Dey, B. Dutta, F. Ahmed, C. Sen, M. H. Mir, **P. P. Ray**, C. Sinha, Intercatenated Coordination Polymers (ICPs) of Carboxylato Bridged Zn(II)-Isoniazid and Their Electrical Conductivity, *Cryst. Growth Des.* 2017, 17 (6), pp 3267–3276.
72. J. Dhar, S. Sil, A. Dey, **P. P. Ray**, D. Sanyal, Positron Annihilation Spectroscopic Investigation on the Origin of Temperature Dependent Electrical Response in Methylammonium Lead Iodide Perovskite, *J. Phys. Chem. Lett.* 2017, 8 (8), 1745–1751.
73. J. Dhar, S. Sil, A. Dey, D. Sanyal, **P. P. Ray**, Investigation of Ion Mediated Charge Transport in Methylammonium Lead Iodide Perovskite, *J. Phys. Chem. C* 2017, 121 (10), 5515–5522.
74. F. Ahmed, J. Datta, B. Dutta, K. Naskar, C. Sinha, S. M. Alam, S. Kundu, **P. P. Ray** and M. H. Mir, Cation dependent charge transport in linear dicarboxylate based isotypical 1D coordination polymers, *RSC Adv.* 2017, 7, 10369–10375.
75. J. Datta, M. Das, A. Dey, S. Sil, R. Jana, **P. P. Ray**, Charge transport mechanism of Al/Cd<sub>1-x</sub>Zn<sub>x</sub>S/ITO schottky diode and its photosensing behaviour, *International Journal of Research in Engineering and Technology*, 2017, DOI:10.15623/ijret.2017.0613014.
76. N. A. Hoque, P. Thakur, A. Kool, S. Das, **P. P. Ray**, Optical and dielectric properties of hydrothermally synthesized Ni(OH)<sub>2</sub> nanoparticles: a morphology and size dependent study, *J. Mater. Sci. Mater. Electron.* 2017, 28, 5375–5383.
77. J. Datta, A. Layek, M. Das, A. Dey, S. Middya, R. Jana, **P. P. Ray**, Growth of hierarchical strontium incorporated cadmium sulphide for possible application in optical and electronic devices, *J. Mater. Sci. Mater. Electron.* 2017, 28, 2049–2061.
78. U. Panda, S. Roy, D. Mallick, A. Layek, **P. P. Ray**, C. Sinha, Aggregation induced emission enhancement (AIEE) of fluorenyl appended Schiff base : a turn on fluorescent probe for Al<sup>3+</sup>, and its photovoltaic effect, *Journal of Luminescence*, 2017, doi:10.1016/j.jlumin.2016.07.008.
79. S. Halder, M. Das, K. Ghosh, A. Dey, B. B. Show, **P. P. Ray\***, P. Roy\*, Development of a new Schiff-base semiconducting material for thin film active device and analysis of its charge transport mechanism, *J. Mater. Sci.* 2016, 51, 9394–9403.
80. A. Dey, M. Das, J. Datta, R. Jana, J. Dhar, S. Sil, D. Biswas, C. Banerjee, **P. P. Ray**, Development of Large Area Nanostructured Silicon-Hydrogen Alloy Material with Improved Stability for Solar Cell Application by Argon Dilution Method, *Electron. Mater. Lett.* 2016, 12, 456-461.
81. B. Bhattacharya, D. K. Maity, A. Layek, Sk Jahiruddin, A. Halder, A. Dey, S. Ghosh, C. Chowdhury, A. Datta, **P. P. Ray\***, D. Ghoshal\*, Multifunctional mixed ligand metal organic frameworks: X-ray structure, adsorption, luminescence and electrical conductivity with theoretical correlation, *Cryst. Eng. Comm.* 2016, 18, 5754-5763.

**Annual Report 2016-17**

82. M. Das, S. Middya, J. Datta, A. Dey, R. Jana, A. Layek, **P. P. Ray**, Investigation of Light Induced Carrier Transport Phenomena Through ZnCdS Nanocomposite Based Schottky Diode, *J. Electronic Materials*, 2016, 45, 4293-4301.
83. Tunable photoluminescence emissions and large dielectric constant of the electroactive poly (vinylidene fluoride-hexafluoropropylene) thin films modified with SnO<sub>2</sub> nanoparticles, NA Hoque, P Thakur, N Bala, A Kool, S Das, **P P Ray**. *RSC Advances* **6** (2016) 29931.

**Dr. P. K. Paul**

84. C. Hansda, B. Dutta, U. Chakraborty, T. Singha, S. A. Hussain, D. Bhattacharjee, S. Paul, **P. K. Paul**, Photophysical behavior of layer-by-layer electrostatic self-assembled film of azo dye Chromotrope-2R and a polycation, *J. Lumin.* 2016, 178, 347–355.
85. C. Hansda, U. Chakraborty, S. A. Hussain, D. Bhattacharjee, **P. K. Paul**, Layer-by-layer films and colloidal dispersions of graphene oxide nanosheets for efficient control of the fluorescence and aggregation properties of the cationic dye acridine orange, *Spectrochim. Acta Mol. Biomol. Spectrosc.*, 2016, 157, 79–87.
86. J. Saha, A. D. Roy, D. Dey, D. Bhattacharjee, **P. K. Paul**, R. Das, S. A. Hussain, Effect of Zinc oxide nanoparticle on Fluorescence Resonance Energy transfer between Fluorescein and Rhodamine 6G, *Spectrochim. Acta Mol. Biomol. Spectrosc.*, 2017, 175, 110–116.
87. U. Chakraborty, T. Singha, R. R. Chianelli, C. Hansda, **P.K. Paul**, Organic-inorganic hybrid layer-by-layer electrostatic self-assembled film of cationic dye Methylene Blue and a clay mineral: Spectroscopic and Atomic Force microscopic investigations, *J. Lumin.*, 2017, 187, 322–332.

**Prof. K. K. Chattopadhyay**

88. Co<sub>3</sub>O<sub>4</sub> nanowires on flexible carbon fabric as a binder free electrode for all solid state symmetric supercapacitor, Promita Howli, Swati Das, Samrat Sarkar, Madhupriya Samanta, Karamjyoti Panigrahi, Nirmalya Sankar Das, **Kalyan Kumar Chattopadhyay**, *ACS Omega* (In Press-2017).
89. Negative-Charge-Functionalized Carbon Nanodot: A Low-cost Smart Cold Emitter, S. Santra, N.S. Das, S. Senapati, D. Sen, **K.K. Chattopadhyay**, K.K. Nanda, *Nanotechnology* (In press - 2017).
90. Exploring the effect of hole localization on the charge-phonon dynamics of hole doped delafossite, Nilesh Mazumder, Prasanta Mandal, Rajarshi Roy, Subhajit Saha, Uttam Kumar Ghorai, **Kalyan Kumar Chattopadhyay**, *Journal of Physics: Condensed Matter* (In Press-2017).
91. Topological Insulator Bi<sub>2</sub>Se<sub>3</sub> / Si Nanowires Based p-n Junction Diode for High Performance Near Infrared Photodetector, Biswajit Das, Nirmalya S. Das, Samrat Sarkar, Biplab K. Chatterjee and **Kalyan Kumar Chattopadhyay**, *ACS Applied Materials & Interfaces* (In Press-2017).
92. Novel Quaternary Chalcogenide / rGO Based Asymmetric Supercapacitor with High Energy Density, Samrat Sarkar, Promita Howli, Biswajit Das, Nirmalya Sankar Das, Madhupriya Samanta, G. C. Das and **Kalyan Kumar Chattopadhyay**, *ACS Applied Materials & Interfaces* (In Press-2017).
93. Role of oxygen functionality on the band structure evolution and conductance of reduced graphene oxide, Rajarshi Roy, Ranjit Thapa, Soubhik Chakrabarty, Arunava Jha,

**Annual Report 2016-17**

- Priyanka R Midya, E. M Kumar and **Kalyan Kumar Chattopadhyay**, Chemical Physics Letters (2017) 677, 80-86.
94. Negative capacitance in  $\text{ZnO}_{1-x}\text{Ch}_x$  (Ch = S, Se, Te): Role of localized charge recombination, Nilesh Mazumder, Prasanta Mandal, Rajarshi Roy, Uttam Kumar Ghorai, Subhajit Saha and **Kalyan Kumar Chattopadhyay**, Journal of Applied Physics (In Press-2017).
95. Raman Spectroscopic Observation of Gradual Polymorphic Transition and Phonon Modes in CuPc Nanorod, Uttam Kumar Ghorai, Nilesh Mazumder, Hitesh Mamgain, Rajarshi Roy, Subhajit Saha and **Kalyan Kumar Chattopadhyay**, J. Phys. Chem. (2017) 121 (11), pp 6323–6328.
96. Effect of Cobalt Doping into Graphitic Carbon Nitride on Photo Induced Removal of Dye from Water, D. Das, D. Banerjee, B. Das, N.S. Das, **K.K. Chattopadhyay**, Materials Research Bulletin (2017) 89 170 – 179.
97. Graphene wrapped Copper Phthalocyanine nanotube: Enhanced photocatalytic activity for industrial waste water treatment, M. Mukherjee, U. K. Ghorai, M. Samanta, A. Santra, G. P. Das, **K. K. Chattopadhyay**, Applied Surface Science (2017) 418, 56-62.
98. Defect Induced Tuning of Photoluminescence Property in Graphitic Carbon Nitride Nanosheets through Synthesis Conditions, D. Das, D. Banerjee, D. Pahari, U.K. Ghorai, S. Sarkar, N.S. Das, **K.K. Chattopadhyay**, Journal of Luminescence (2017) 185 155-165.
99. Solvent Dependent Phase Transition Between Two Polymorphic Phases of Manganese Tungstate: From Rigid to Hollow Microsphere, Kaustav Bhattacharjee, Satya R. Pati, Gopes C. Das, **Kalyan Kumar Chattopadhyay**, Crystal Growth & Design (2017), 17 (2), pp 719–729.
100. Pseudo First Ordered Adsorption of Noxious Textile Dyes by Low-Temperature Synthesized Amorphous Carbon Nanotubes, D. Banerjee, P. Bhowmik, D. Pahari, S. Santra, S. Sarkar, B. Das, **K. K. Chattopadhyay**, Physica-E (2016) 87, 68-76.
101. Removal of oxygen related defects from chemically synthesized  $\text{In}_2\text{O}_3$  thin film doped with Er by spin-on technique, Anupam Ghosh, Aniruddha Mondal, Avishek Das, **Kalyan Kumar Chattopadhyay**, Journal of Alloys and Compounds (2016) 695, 1260-1265.
102.  $\text{Cu}_2\text{O}/\text{g-C}_3\text{N}_4$  nanocomposites: An insight into the band structure tuning and catalytic efficiencies, Anuradha Mitra, Promita Howli, Dipayan Sen, Biswajit Das and **Kalyan Kumar Chattopadhyay**, Nanoscale (2016), 8, 19099-19109.
103. Nanostructured  $\text{CaCu}_3\text{Ti}_4\text{O}_{12}$  for environmental remediation through visible light active catalysis, Arindam Sen, **Kalyan Kumar Chattopadhyay**, J Mater Sci: Mater Electron (2016) 27:10393–10398.
104. RGO enveloped vertically aligned  $\text{Co}_3\text{O}_4$  nanowires on carbon fabric: A highly efficient prototype for flexible field emitter arrays, P. Howli, Swati Das, Subhajit Saha, Biswajit Das, Partha Hazra, Dipayan Sen and **Kalyan Kumar Chattopadhyay**, RSC Advances (2016) 2016, 6, 91860-91869.
105. All-amorphous CNT-MnO<sub>2</sub> nanoflake hybrid for improved supercapacitor applications, D Ganguly, D Pahari, Nirmalya S Das, P Howli, B. Das, Diptonil Banerjee, **K.K. Chattopadhyay**, Journal of Electroanalytical Chemistry (2016) 778, 12-22.



**Annual Report 2016-17**

106. CdS nanoparticle coated carbon nanotube through magnetron sputtering and its improved field emission performance, S. Maity, N. S. Das, S. Santra, D. Sen and **K. K. Chattopadhyay**, *Current Applied Physics* 16 (2016) 1293e1302.
107. Amorphous carbon nanotubes incorporated MgO-graphite composite with enhanced properties for steel making furnaces, D. Halder, P.R. Midya, S. Das, N.S. Das, I. Roy and **K. K. Chattopadhyay**, *Ceramic International* 42 (2016) 15826–15835.
108. Size Dependent Photoluminescence Property of Hydrothermally Synthesized Crystalline Carbon Quantum Dots, S. Sarkar, D. Banerjee, U. K. Ghorai, N. S. Das and **K. K. Chattopadhyay**, *Journal of Luminescence* (178 (2016) 314-23).
109. Local Field Enhancement Induced Enriched Cathodoluminescence Behaviour from CuI-RGO Nanophosphor Composite for Field Emission Display Applications, Subhajit Saha, Rajarshi Roy, Swati Das, Dipayan Sen, Uttam Kumar Ghorai, Nilesh Mazumder and **Kalyan Kumar Chattopadhyay**, *ACS Applied Materials & Interfaces* (In Press-2016).
110. Scheme of simultaneous cationic-anionic substitution in  $\text{CuCrO}_2$  for transparent and superior p-type transport, Prasanta Mandal, Nilesh Mazumder, Subhajit Saha, Uttam Kumar Ghorai, Rajarshi Roy, Gopes Das, **Kalyan Kumar Chattopadhyay**, *Journal of Physics D: Applied Physics*. 49 (2016) 275109 (7pp).
111. ZnO-(Cu/Ag)TCNQ heterostructure network over flexible platform for enhanced cold cathode application, Shreyasi Pal, Soumen Maiti, Uday Narayan Maiti, Kalyan Kumar Chattopadhyay, *Nanotechnology* 27 (2016) 26560-71.
112. Enhanced Adsorption of Hexavalent Chromium onto Magnetic Calcium Ferrite Nanoparticles: Kinetic, Isotherm, and Neural Network Modeling, A. Debnath, M. Majumder, M. Pal, N. S. Das, **K. K. Chattopadhyay** and Biswajit Saha, *J. Dispersion Sci. & Technology*, Volume 37, Issue 12, (2016).
113. Synthesis and characterization of mixed phase manganese ferrite and hausmannite magnetic nanoparticle as potential adsorbent for methylorange from aqueous media: Artificial neural network modeling, K.L. Bhowmik, A. Debnath, R.K. Nath, S. Das, **K.K. Chattopadhyay**, B. Saha, *Journal of Molecular Liquid*, 219 (2016), 1010–1022.
114. Nitrogen doping in acetylene bonded two dimensional carbon crystals: Ab-initio forecast of electrocatalytic activities vis-à-vis boron doping, Bikram Kumar Das, Dipayan Sen, **Kalyan Kumar Chattopadhyay**, *Carbon* (105 (2016) 330 – 339).
115. Tailoring the Optical and Hydrophobic property of Zinc Oxide Nanorod by Coating with Amorphous Graphene, D. Pahari, N.S. Das, B. Das, **K. K. Chattopadhyay**, D. Banerjee, *Physica E* (83 (2016) 47-55).
116. Facile synthesis of ZnPc nanoflakes for cold cathode emission, Madhupriya Samanta, Uttam Ghorai, Biswajit Das, Promita Howli, Das Swati, Dipayan Sen and **Kalyan Kumar Chattopadhyay**, *RSC Advances* 2016,6, 42739-42744.
117. Chemically activated growth of CuO nanostructures for flexible cold cathode emission, Karamjyoti Panigrahi, Swati Das, Subhajit Saha, Biswajit Das, Dipayan Sen, Promita Howli and **Kalyan Kumar Chattopadhyay**, *Cryst Eng Comm* 2016, 18, 3389-3398.
118. Colossal magnetoresistance in amino-functionalized graphene quantum dots at room temperature: Manifestation of weak antilocalization and doorway to spintronics, Rajarshi



**Annual Report 2016-17**

- Roy, Ranjit Thapa, Gundam Sandeep Kumar, Nilesh Mazumder, Dipayan Sen, S. Sinthika, Nirmalya S. Das and **Kalyan K. Chattopadhyay**, *Nanoscale* 2016,8, 8245-8254.
119. rGO Wrapped Flowerlike Bi<sub>2</sub>Se<sub>3</sub> Nanocomposite : Synthesis, Experimental and Simulation Based Investigation on Cold Cathode Applications, Biswajit Das, Samrat Sarkar, Rimpa Khan, Saswati Santra, Nirmalya Sankar Das and **Kalyan Kumar Chattopadhyay**, *RSC Advances*, 2016,6, 25900-25912.
120. Easy synthesis of porous carbon mesospheres and its functionalization with Titania nanoparticles for enhanced field emission and photocatalytic activity, Dheeraj Kumar, Diptonil Banerjee, Sourav. Sarkar, Nirmalya S. Das and **Kalyan K. Chattopadhyay**, *Materials Chemistry and Physics* 175 (2016) 22-32.
121. Raman imaging and stress quantification in self-assembled graphene oxide 'Latin Letters' R. Roy, N.Mazumder, G.S.Kumar, H. Mamgain,U.K. Ghorai, D.Sen and K. K. Chattopadhyay, *Journal of Raman Spectroscopy*, Volume 47, Issue 7, pages 845–851.
122. Mixed phase delafossite structured p type CuFeO<sub>2</sub>/CuO thin film on FTO coated glass and its Schottky diode characteristics, A Bera, K Deb, KK Chattopadhyay, R Thapa, B Saha, **Microelectronic Engineering** 162, 23-26 (2016).
123. TiO<sub>2</sub> Nanowires/Poly (Methyl Methacrylate) Based Hybrid Photodetector: Improved Light Detection, S Saha, A Mondal, B Choudhuri, T Goswami, MB Sarkar, KK Chattopadhyay, **Journal of nanoscience and nanotechnology**16 (3), 2737-2741 (2016).
124. Methyl orange adsorption onto simple chemical route synthesized crystalline  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> nanoparticles: kinetic, equilibrium isotherm, and neural network modeling, A. Debnath, K. Deb, **K.K. Chattopadhyay**, B. Saha, *Desalination and Water Treatment* 57 (29), 13549-13560 (2016).
125. Curvature aided efficient axial field emission from Carbon nanofiber-Reduced graphene oxide superstructures on Tungsten wire substrate, A. Jha, R. Roy, D. Sen and **K. K. Chattopadhyay**, *Applied Surface Science* (366 (2016) 448–454.

**Prof. Ruma Ray**

126. S. Sarkar, A. Mondal, K. Dey, **R. Ray**, Defect driven tailoring of colossal dielectricity of Reduced Graphene Oxide , *Materials Research Bulletin* (2016) 74 (vol) 465–471.
127. Archita Mondal, Sanchari Sarkar, Neepamala Giri, Souvik Chatterjee, **Ruma Ray**, Magnetic Phase Separation in Diluted Magnetic System: Zn<sub>1-x</sub>Fe<sub>x</sub>O, *Acta Metall. Sin. (Engl. Lett.)*, (2017), 30(6) (vol), 521–527.

**Dr. Sanjay Kumar**

128. Study on structural, spectroscopic and dielectric properties of 1:2 ordered Ca<sub>3</sub>(B'Ta<sub>2</sub>)O<sub>9</sub> (B' = Mg, Zn) by M. Hoque, A. Barua, A. Dutta, S. K. Dey, T. P. Sinha and **S. Kumar**, *Ionics* 23 (2016) 471.
129. A magnesium based bifunctional MOF: Studies on proton conductivity, gas and water adsorption by S. Singha, S. K. Maity, S. Biswas, R. Saha and **S. Kumar**, *Inorganica Chimica Acta* 453 (2016) 321.
130. A highly sensitive non-enzymatic hydrogen peroxide and hydrazine electrochemical sensor based on 3D micro-snowflake architectures of  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> by S. Majumder, B. Saha, S. Dey, R. Mondal, **S. Kumar** and S. Banerjee, *RSC Adv.* 6 (2016) 59907.

**Annual Report 2016-17**

131. Albumin matrix assisted wet chemical synthesis of nanocrystalline  $MFe_2O_4$  (M= Cu, Co and Zn) ferrites for visible light driven degradation of methylene blue by hydrogen peroxide by M. Saha, S. Mukherjee, **S. Kumar**, S. Dey and A. Gayen, RSC Adv. 6 (2016) 58125.
132. Synthesis, crystal structure from PXRD of a Mn II (purp) 2 complex. Interaction with DNA at different temperature and Ph and lack of simulated ROS formation by the complex by B. Mondal, S. Singha, S. K. Dey, S. Mazumdar, T. K. Mondal, P. Karmakar, **S. Kumar** and S. Das, RSC Adv. 57 (2016) 51520.
133. Nanocrystalline Copper Nickel Zinc Ferrite: Efficient Sensing Materials for Ethanol and Acetone at Room Temperature by C. Mukherjee, R. Mondal, S. Dey, **S. Kumar** and J. Das, IEEE Sensors Journal. 17 (2017) 2662.
134. Study on magnetic and hyperfine properties of mechanically milled  $Ni_{0.4}Zn_{0.6}Fe_2O_4$  nanoparticles by R. Mondal, S. Dey, S. Majumder, A. Poddar, P. Dasgupta and **S. Kumar**, Journal of Magnetism and Magnetic Materials (Accepted for publication).

**Prof. Sukhen Das**

135. Biswajoy Bagchi · Somtirtha Banerjee · Arpan Kool · Pradipthakur, Suman Bhandary, Nur Amin Hoque, **Sukhen Das**, Synthesis of Eucalyptus/Tea Tree Oil Absorbed 1 Biphase Calcium phosphate-PVDF Polymer Nanocomposite Films: A Surface Active Antimicrobial System for Biomedical Application Phys. Chem. Chem. Phys. DOI: 10.1039/C6CP03493D.
136. Nur Amin Hoque, Pradip Thakur, Niranjana Bala, Arpan Kool, **Sukhen Das**, Partha Pratim Ray, Tunable photoluminescence emissions and large dielectric constant of the electroactive poly(vinylidene fluoride-hexafluoropropylene) thin films modified with  $SnO_2$  nanoparticles, RSC Adv. 2016, 6, 29931–29943.
137. Pradip Thakur · Arpan Kool · Nur Amin Hoque · Biswajoy Bagchi · Swagata Roy · Nayim Sepay · **Sukhen Das** · Papiya Nandy. Improving thermal stability, electroactive  $\beta$  phase crystallization and dielectric constant of NiO nanoparticle/C-NiO nanocomposite embedded flexible poly(vinylidene fluoride) thin films RSC Adv., 2016, 6, 26288–26299.
138. Swagata Roy, Pradip Thakur, Nur Amin Hoque, Biswajoy Bagchi, **Sukhen Das**. Enhanced electroactive  $\beta$  phase nucleation and dielectric properties of PVDF-HFP thin films influenced by montmorillonite and  $Ni(OH)_2$  nanoparticle modified montmorillonite RSC Adv., 2016, 6, 21881-21894. DOI: 10.1039/C6RA00864J.
139. A. Chatterjee · B.K. Paul · S. Kar · **S. Das** · R. Basu · D.S. Bhar · R. Manchanda · A.K. Khurana · D. Nayak · P. Nandy Effect of ultrahigh diluted homeopathic medicines on the electrical properties of PVDF-HFP Int. J. High Dilution Research 15(1), 10-17.
140. B. K. Paul · S. Kar · P. Bandyopadhyay · R. Basu, **S. Das**, D.S. Bhar, Raj.K. Manchanda Anil Khurana · D Nayak · Papiya Nandy. Significant enhancement of dielectric and conducting properties of electroactive polymer polyvinylidene fluoride films: An innovative use of Ferrum metallicum at different concentrations Indian Journal of Research in Homeopathy 10(1), pp. 52-58, 2016.
141. Mousumi Pal, **Sukhen Das**, Surajit Gupta and Swapan Kumar Das. “Thermal analysis and vitrification behavior of slag containing porcelain stoneware body J Therm Anal Calorim, 124: pp.1169–1177, (DOI 10.1007/s10973-015-5179-7), 2016.

142. Poonam Bandyopadhyay, Sweta Chakraborty, Ruma Basu, **Sukhen Das**, Durga Shankar Bhar, Rajkumar Manchanda, Anil Kumar Khurana, Debadutta Nayak & Papiya Nandy. Efficiency of a dye-sensitized photoelectrochemical device using thionine and triturated zinc oxide at different potency. *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects*, 38 (22), 3417-3422, 2016.
143. Nur Amin Hoque, Pradip Thakur, Arpan Kool, **Sukhen Das**, Partha Pratim Ray. Optical and dielectric properties of hydrothermally synthesized Ni(OH)<sub>2</sub> nanoparticles: a morphology and size dependent study. *Journal of Materials Science Materials in Electronics* • DOI: 10.1007/s10854-016-6197-3.
144. N. Bala, S. Saha, M. Maiti, M. Sarkar, a **S. Das**,\* P. Nandic and R. Basu. Riboflavin conjugated temperature variant ZnO nanoparticles with potential medicinal application in jaundice. *RSC Adv.*, 6(75), 71188–71198, 2016. DOI: 10.1039/C6RA15182E.
145. Arpan Kool, Pradip Thakur, Biswajoy Bagchi, NayimSepay, **Sukhen Das**, Physico-chemical property-driven dielectric behaviour and catalytic activity of nanocrystalline mullite synthesized from monophasic precursor gel. *Journal of Sol-Gel Science and Technology* 80(3) , DOI: 10.1007/s10971-016-4155-4.
146. Poonam Bandyopadhyay, AninditaDey (nee Mondal), Ruma Basu, PapiyaNandy, **Sukhen Das**, Effect of Cu doping in ZnO nanoparticles for increased voltage generation, storage capacity, and energy conversion efficiency in photoelectrochemical cell , *Energy Sources Part A Recovery Utilization and Environmental Effects* 38(13):1833-1839, DOI: 10.1080/15567036.2015.1005852.
147. Kumaresh Halder, Biplab Kumar Paul, Alakananda Bhattacharya, Sukhen Das, Influence of nickel ion-doped mullite composite on electrical properties, phase behavior, and microstructure of poly(vinylidene fluoride) matrix *Journal of Polymer Research* 23(7) · July 2016, DOI: 10.1007/s10965-016-1027-0.
148. A.L. Gayen, B. K. Paul, D. Roy, S. Kar, P. Bandyopadhyay, R. Basu, S. Das, D. S. Bhar, R. K. Manchanda, A. K. Khurana, D. Nayak and P. Nandy\*. Enhanced dielectric properties and conductivity of triturated copper and cobalt nanoparticles-doped PVDF-HFP film and their possible use in electronic industry. *Materials Research Innovations*. DOI: 10.1080/14328917.2016.1196563.
149. Biplab Kumar Paul, Debasis Roy, Sreejita Batabyal, Alakananda Bhattacharya, Papiya Nandy, Sukhen Das. A comparative study of strontium and titanium doped mullite in PVDF matrix and their phase behaviour, microstructure and electrical properties. *n Materials Chemistry and Physics*, <http://dx.doi.org/10.1016/j.matchemphys.11.056>, 2016.
150. P. Bandopadhyay, **S.Das**, R. K. Manchanda, A.K. Khurana, D. Nayak, D. S. Bhar, R. Basu, P. Nandy Effects of homeopathic medicine on physical properties of matter – a classical and QED perpestive *Int J High Dilution Reseach* 15 (3), 18-22, 2016.
151. Epsita Kar Navonil Bose, **Sukhen Das**, Nillohit Mukherjee, Sampad Mukherjee Temperature dependent dielectric properties of self-standing and flexible poly(vinylidene fluoride) films infused with Er<sup>3+</sup> doped GeO<sub>2</sub> and SiO<sub>2</sub> nanoparticles, *J. Applied. Polymer. Science*. DOI: 10.1002/APP.44016. 2016,
152. Nur Amin Hoque, Pradip Thakur\*, Swagata Roy, Arpan Kool, BiswajoyBagchi, Prosenjit Biswas, Md. Minarul Saikh, Farha Khatun,, **Sukhen Das**\*, Partha Pratim Ray\*. Er<sup>3+</sup>/Fe<sup>3+</sup> Stimulated Electroactive, Visible Light Emitting, and High Dielectric Flexible PVDF Film Based Piezoelectric Nanogenerators: A Simple and Superior Self-Powered Energy

**Annual Report 2016-17**

Harvester with Remarkable Power Density, ACS Applied Materials and Interfaces, 2017, DOI: 10.1021/acsami.7b08008.

153. Swagata Roy, Pradip Thakur\*, Nur Amin Hoque, Biswajoy Bagchi, Nayim Sepay, Farha Khatun, Arpan Kool, **Sukhen Das\***, Electroactive and High Dielectric Folic Acid/PVDF Composite Film Rooted Simplistic Organic Photovoltaic Self-Charging Energy Storage Cell with Superior Energy Density and Storage Capability, ACS Applied Materials and Interfaces (Impact Factor: 7.50): 2017, DOI: 10.1021/acsami.7b05540.
154. Niranjana Bala, M. Sarkar, M. Maiti, P. Nandy, R. Basu, **S. Das\***. Phenolic compound mediated single step fabrication of Copper Oxide Nanoparticles for elucidating its influence on anti-bacterial and catalytic Activity, New Journal of Chemistry (Impact Factor: 3.27): 2017, DOI: 10.1039/C6NJ04008J.
155. Santanu Das, Sukhen Das, Dipankar Das, Soumyaditya Sutradhar\*, Tailoring of room temperature ferromagnetism and electrical properties in ZnO by Co (3d) and Gd (4f) element co-doping, Journal of Alloys and Compounds (Impact Factor: 3.13): 691, 2017, 739-749.
156. Santanu Das, Sukhen Das, Anirban Roychowdhury, Dipankar Das, Soumyaditya Sutradhar\*."Effect of Gd doping concentration and sintering temperature on structural, optical, dielectric and magnetic properties of hydrothermally synthesized ZnO nanostructure, Journal of Alloys and Compounds (Impact Factor: 3.13): 708, 2017, 231-246.
157. Santanu Das, Sukhen Das, Soumyaditya Sutradhar\*,"Enhanced dielectric behavior and ac electrical response in Gd-Mn-ZnO nanoparticles", Journal of Alloys and Compounds (Impact Factor: 3.13): 2017, DOI:10.1016/j.jallcom.2017.05.024.
158. Santanu Das, **Sukhen Das**, Soumyaditya Sutradhar\*, Effect of Gd<sup>3+</sup> and Al<sup>3+</sup> on optical and dielectric properties of ZnO nanoparticle prepared by two-step hydrothermal method", Ceramics International (Impact Factor: 2.98): 43, 2017, 6932-6941.
159. Arpan Kool, Pradip Thakur, Biswajoy Bagchi, Nur Amin Hoque, Somtirtha Banerjee, **Sukhen Das\***."Synthesis of nanocrystalline photoluminescent mullite using sacrificial cotton wool and filter paper templates" Journal of the American Ceramic Society (Impact Factor: 2.84): 2017; DOI: 10.1111/jace.14995.
160. Farha Khatun, Nur Amin Hoque, Pradip Thakur\*, Nayim Sepay, Swagata Roy, Biswajoy Bagchi, Arpan Kool, **Sukhen Das\***. 4'-Chloroalcone assisted electroactive  $\beta$  polymorph rich and high dielectric PVDF film based simplex and talented energy storage system capable of self-charging under light, Energy Technology, 2017, DOI: 10.1002/ente.201700265.
161. Biplab Kumar Paul, Debasis Roy, Sreejita Batabyal, Alakananda Bhattacharya, Papiya Nandy, **Sukhen Das\***, A comparative study of strontium and titanium doped mullite in PVD matrix and their phase behavior, microstructure and electrical properties, Materials Chemistry and Physics (Impact Factor: 2.08): 187, 2017, 119-132.

**Dr. Sanat Karmakar**

162. P. Maity, Baishakhi Saha, G. S. Kumar, **S. Karmakar**, Binding of alkali metal ions with negatively charged phospholipid membranes, Biochim. Biophys. Acta, 2016, 1858, 706-714.
163. A. Basu, P. Maity, P. Karmakar and **S. Karmakar**, Preparation of giant unilamellar vesicles from the large unilamellar vesicles: A model system of biological membranes, J. Surface. Sc. Technol., 2016, 32, 83-90.



**Annual Report 2016-17**

164. S. Hazra, S. Sircar, T. Khatun, M. Dutta Choudhury, A. Giri, **S. Karmakar**, T. Dutta, S. Das and S. Tarafdar, Unstable crack propagation in Laponite gels: selection of sinusoidal mode in an electric field, *RSC Adv*, 2016, 6, 64297-64305.
165. P. Maity, B. Saha, G. S. Kumar and **S. Karmakar**, Effect of counterions on the binding affinity of Na<sup>+</sup> with the phospholipid membranes, *RSC Adv.*, 2016, 6, 83916-83925.
166. B. Roy, **S. Karmakar**, A. Giri and S. Tarafder, Pattern formation of drying lyotropic liquid crystalline droplet, *RSC Adv.*, 2016, 6, 112695-112703.
167. A. Sannigrahi, P. Maity, **S. Karmakar**, K. Chattopadhyay, Interaction of KMP-11 With Phospholipid Membranes and Its Implications in Leishmaniasis: The Effects of Single Tryptophan Mutations and Cholesterol, *J. Phys. Chem B*, 2017, 121, 1824-1834.
168. B. Roy, **S. Karmakar**, S. Tarafder, Self assembled transparent conducting network of multi-walled carbon nanotubes formed by evaporation, To appear in *Materials Letters*.

**Dr. Saikat Kumar Seth**

169. A. Nandy, T. Samanta, S. Mallick, P. Mitra, S. K. Seth, K. Das Saha, S. S. Al-Deyab, J. Dinda, Synthesis of gold(III) gold(I)-NHC through disproportionation: the role of gold(I)-NHC in the induction of apoptosis in HepG2 cells, *New J. Chem.*, 2016, 40, 6289-6298.
170. S. K. Jana, A. K. Mandal, S. K. Seth, H. Puschmann, Maidul Hossain, S. Dalai, Synthesis, Characterization and Crystal Structure of a New 3D Cadmium(II) Coordination Polymer: Binding Interaction with DNA and Double Stranded RNA, *J. Inorganic and Organometallic Polymers and Materials*, 2016, 26, 806-818.
171. S. Adhikari, T. Kar, S. K. Seth, Synthesis, crystal growth and characterization of divalene maleic – a new nonlinear optical material, *RSC Adv.*, 2016, 6, 99139-99148.
172. K. Jana, T. Maity, S. C. Debnath, B. C. Samanta, S. K. Seth, Octahedral Ni(II) complex with new NNO donor Schiff base ligand: Synthesis, structure and Hirshfeld surface, *J. Mol. Struct.*, 2017, 1130, 844-854.
173. D. Hazari, S. K. Jana, S. K. Seth, H. Puschmann, S. Dalai, Structural variability of Ag(I) metal-organic networks: C-H... $\pi$  and metal... $\pi$  interactions, *J. Coord. Chem.*, 2016, 69, 562-573.
174. G. Mahmoudi, L. Dey, H. Chowdhury, A. Bauza, B. K. Ghosh, A. M. Kirillov, S. K. Seth, A. V. Gurbanov, A. Frontera, Synthesis and crystal structures of three new lead(II) isonicotinoylhydrazone derivatives: Anion controlled nuclearity and dimensionality, *Inorg. Chim. Acta*, 2017, 461, 192-205.

**Dr. Sk. Saiyad Ali**

175. Sarkar, A. K., Bharadwaj, S., **Ali, S. S.**, Fisher matrix based predictions for measuring the  $z = 3.35$  binned 21-cm power spectrum using the Ooty Wide Field Array (OWFA), 2017, *JoAA*, 38, 14.
176. **Ali, S. S.**, Bharadwaj, S., Choudhuri, S., Ghosh, A., Roy, N., The prospects of measuring the angular power spectrum of the diffuse Galactic synchrotron emission with SKA1 Low, 2016, *JoAA*, 37(4), 35.
177. Majumdar, S., Datta, K. K., Ghara, R., Mondal, R., Choudhury, T. R., Bharadwaj, S., **Ali, S. S.**, Datta, A., Line of sight anisotropies in the Cosmic Dawn and EoR 21-cm power spectrum, 2016, *JoAA*, 37(4), 32.

**Annual Report 2016-17**

178. Choudhuri, S., Bharadwaj, S., Chatterjee, S., **Ali, S. S.**, Roy, N., , Ghosh, A., The visibility based Tapered Gridded Estimator (TGE) for the redshifted 21-cm power spectrum, 2016, MNRAS, 463, 4093.

**C. Book/Monograph etc. Published:**

**Prof. K. K. Chattopadhyay**

1. Size-Dependant Optical Properties of Nanoparticles Analyzed by Spectroscopic Ellipsometry, Kalyan Kumar Chattopadhyay and Nirmalya Sankar Das, Handbook of Nanoparticles, (Springer International publishing, Switzerland) (2016) p. 265-293, ISBN: 978-3-319-13188-7.

**Dr. Joydeep Chowdhury**

2. Molecular and Laser Spectroscopy, Elsevier, 2017 (ISBN: 9780128498835).

**D. Proceedings**

**Prof. A. Deb**

1. S. Biswas Ghosh, M. Mondal, A. Deb, D. Ghosh, S. Chowdhury and A. Mondal, Chaotic Pionisation in Ring-like and Jet-like Events, National Conference on Nuclear and Accelerator Physics, (NCNAP-2016 , Oct 4-6 ) at Ranchi.
2. M. Mondal, S. Biswas Ghosh, A. Mondal, A. Naskar, A. Deb, D. Ghosh, Chaos in Production of Compound Hadrons in Relativistic Nucleus-Nucleus Collision, National Conference on Nuclear and Accelerator Physics,(NCNAP-2016, Oct 4-6 ) at Ranchi.
3. M. Mondal, S. Biswas Ghosh, S. Chowdhury, D. Ghosh and A. Deb, Evidence of Forward-Backward Multiplicity Correlations In Ring-Like And Jet- Like Events, 61<sup>st</sup>DAE-BRNS Symposium on Nuclear Physics, December 4-9,2016.

**Prof. A. Bhattacharya**

4. Track distortion in the Large prototype of a Time Projection Chamber for the International Linear Collider; Deb Sankar Bhattacharya, Purba Bhattacharya, Supratik Mukhopadhyay, Nayana Majumdar, Sudeb Bhattacharya, Sandip Sarkar, Paul Colas, David Atti´e, Serguei Ganjour and **Aparajita Bhattacharya**. XXVII IUPAP Conference on Computational Physics (CCP2015) Journal of Physics: Conference Series 759 (2016) 012075 doi:10.1088/1742-6596/759/1/012075.
5. D. Article “‘Meson and Diquark Condensates in the NJL Model and the Fermi Momentum’ has been included in book ‘Gribov Memorial Volume: Exploring the Quantum Field Theory’ World Scientific Publishing Co Pvt.Ltd 2017, Chapter; ‘ QFT and Beyond’, page 451.
6. ‘A Composite Fermion Approach to Heavy Pentaquark’ presented at the 22<sup>nd</sup> Spin symposium “ Spin 2016’ held at University of Illinois, Urbana Champaign, USA, from September 24<sup>th</sup> to 30<sup>th</sup> October 2016.
7. Track distortion in the Large prototype of a Time Projection Chamber for the International Linear Collider; Deb Sankar Bhattacharya, Purba Bhattacharya, Supratik Mukhopadhyay, Nayana Majumdar, Sudeb Bhattacharya, Sandip Sarkar, Paul Colas, David Atti´e, Serguei Ganjour and **Aparajita Bhattacharya**. XXVII IUPAP Conference on Computational Physics (CCP2015) Journal of Physics: Conference Series 759 (2016) 012075 doi:10.1088/1742-6596/759/1/012075.



**Annual Report 2016-17**

8. Ion Backflow studies related to a proposed Micromegas-based TPC for the International Linear Collider.; Deb Sankar Bhattacharya, Purba Bhattacharya, Supratik Mukhopadhyay, Nayana Majumdar, Sudeb Bhattacharya, Sandip Sarkar, Paul Colas, David Attié, Serguei Ganjour and **Aparajita Bhattacharya** DAE, High energy Symposium 2016, 12-16<sup>th</sup> December, Delhi University.
9. “Heavy Pentaquark  $P_c^*(4380)$  and  $P_c^*(4450)$  Mass with Diquark as Quasi Particle”, R. Ghosh, **A. Bhattacharya**, B. Chakrabarti, Symposium on Nuclear Physics “A Journey from Nuclei to Quarks”, 28-29<sup>th</sup> June, 2016, VECC, Kolkata, India.
10. “Mass and Regge Trajectories for Heavy Pentaquarks”, R. Ghosh and **A. Bhattacharya**, Proceedings of the DAE-BRNS Symp. Nucl. Phys. 61 (2016) 678-679.
11. “Investigation of Quark Binding Potential in QGP”, S. Pal, R. Ghosh, B. Chakrabarti, **A. Bhattacharya**, Proceedings of the DAE-BRNS Symp. On Nucl. Phys. 61 (2016) 818-819.

**Dr. D. Mandal**

12. S. K. Ghosh and **D. Mandal**, Self Powered Flexible Electronics Based on Self Poled “Ferroelectric” Nanogenerator, MRS Advances 2016, 1, 3083-3088. 2016 MRS Spring Meeting & Exhibit, 28<sup>th</sup> March-1<sup>st</sup> April, 2016.
13. P. Adhikary, S. Garain and **D. Mandal**, P(VDF-HFP)/Cerium Composite Films with Improved Dielectric Properties for Energy Storage Applications, AIP Conf. Proc. 2017, 1832, 040025. 61<sup>st</sup> DAE Solid State Physics Symposium, 26-30<sup>th</sup> December, 2016.
14. M. M. Alam and **D. Mandal**, Fabrication of lead free flexible electrospun hybrid nanofibers for designing mechanical energy harvester, AIP Conf. Proc. 2017, 1832, 050169, 61<sup>st</sup> DAE Solid State Physics Symposium, 26-30<sup>th</sup> December, 2016.
15. A. Biswas, S. Garain and **D. Mandal**, In situ synthesis of bismuth oxide nanorods and fabrication of self-poled PVDF nanogenerator for mechanical energy harvesting, AIP Conf. Proc. 2017, 1832, 040024, 61<sup>st</sup> DAE Solid State Physics Symposium, 26-30<sup>th</sup> December, 2016.

**Dr. J. Das**

16. Graphene Oxide Based Ethylene Gas Sensor for e-Nose Application, M. Mallick, **J. Das**, International Symposium on Semiconductor Materials and Devices (ISSMD-4) 8-10 March, 2017.
17. Graphene Oxide Based Fruit Ripeness Sensing e-Nose, M. Mallick, S.M. Hossain, **J. Das**, International Conference on Functional Nano Materials (IC-FNM) 28-29 September, 2016.
18. Comparison of Glucose Sensitivity of Nano and Macro Porous Silicon, T. Sarkar, D. Basu, N. Mukherjee, **J. Das**, International Conference on Functional Nano Materials (IC-FNM) 28-29 September, 2016.
19. Current Controlled Switching in Si/PS/a-Si Heterostructure, S. Chakrabarty, S. Mandal, U. Ghanta, **J. Das**, S.M. Hossain, International Conference on Functional Nano Materials (IC-FNM) 28-29 September, 2016.

**Prof. K. K. Chattopadhyay**

20. En route to the conductivity bottleneck in p-type  $\text{CuCr}_{1-x}\text{M}_x\text{O}_{2-y}\text{S}_y$  (M= Li, Mg), P Mandal, N Mazumder, AJ Akhtar, R Roy, **KK Chattopadhyay**, AIP Conference Proceedings 1832 (1), 110054, (2017).

**Annual Report 2016-17**

21. Facile synthesis of ZnPc nanocubes: An electron emitting material for field emission display devices, M Samanta, UK Ghorai, M Mukherjee, P Howli, **KK Chattopadhyay**, AIP Conference Proceedings 1832 (1), 050032 (2017).
22. Novel kite-like ZnO nano-tetrapods for sustainable environmental applications, S Pal, S Maiti, **KK Chattopadhyay**, AIP Conference Proceedings 1832 (1), 050039 (2017).
23. Three dimensional CuO nanoflakes on flexible carbon fabric for high performance supercapacitor, P Howli, S Das, K Panigrahi, M Samanta, **KK Chattopadhyay**, AIP Conference Proceedings 1832 (1), 050030 (2017).
24. Temperature dependent electrical properties of polyaniline film grown on paper through aniline vapor polymerization, K Deb, KL Bhowmik, A Bera, **KK Chattopadhyay**, B Saha, AIP Conference Proceedings 1731 (1), 110030 (2016).
25. Structural origination of charge transfer complex nanostructures: Excellent candidate for field emission, S Pal, **KK Chattopadhyay**, AIP Conference Proceedings 1731 (1), 050102 (2016).
26. Studies on magnetic properties of chemically synthesized crystalline calcium ferrite nanoparticles, A Debnath, A Bera, **KK Chattopadhyay**, B Saha, AIP Conference Proceedings 1731 (1), 050103 (2016)
27. Catalyst free VLS deposition of Cu<sub>2</sub>Se<sub>1-x</sub> film for cold cathode application and its theoretical verification, B Das, S Maity, **KK Chattopadhyay**, AIP Conference Proceedings 1728 (1), 020517 (2016).
28. Enhancement of thermal conductivity of transformer oil by exfoliated white graphene nanosheets, MM Bhunia, S Das, P Chattopadhyay, S Das, **KK Chattopadhyay**, Environment and Electrical Engineering (EEEIC), (2016) IEEE 16th International Conf.
29. Morphology induced photo-degradation study of low temperature, chemically derived ZnO/SnO<sub>2</sub> heterostructure, S Pal, S Maiti, **KK Chattopadhyay**, AIP Conference Proceedings 1728 (1), 020403 (2016).

**Dr. Mitali Mondal**

30. S. Biswas Ghosh, **M. Mondal**, A. Deb, D. Ghosh, S. Chowdhury and A. Mondal, Chaotic Pionisation in Ring-like and Jet-like Events, National Conference on Nuclear and Accelerator Physics, (NCNAP-2016 , Oct 4-6 ) at Ranchi.
31. **M. Mondal**, S. Biswas Ghosh, A. Mondal, A. Naskar, A. Deb, D. Ghosh, Chaos in Production of Compound Hadrons in Relativistic Nucleus-Nucleus Collision, National Conference on Nuclear and Accelerator Physics,(NCNAP-2016 , Oct 4-6 ) at Ranchi.
32. **M. Mondal**, S. Biswas Ghosh, S. Chowdhury, D. Ghosh and A. Deb, Evidence of Forward-Backward Multiplicity Correlations In Ring -Like And Jet- Like Events, 61<sup>st</sup> DAE-BRNS Symposium on Nuclear Physics, December 4-9, 2016
33. S. Biswas Ghosh, **M. Mondal**, A. Deb and D. Ghosh, Pion-Pion Correlations study in Ring-like and Jet-like events in <sup>16</sup>O-AgBr Interactions at 60 AGeV, First Regional Science and Technology Congress, 13<sup>th</sup> and 14<sup>th</sup> November, 2016.
34. **M. Mondal**, S. Biswas Ghosh, K. K. Patra, D. Ghosh and A. Deb, Different Pionisation in two Different Classes of events, First Regional Science and Technology Congress, 13<sup>th</sup> and 14<sup>th</sup> November, 2016.

**Dr. P. P. Ray**

35. M. Das, J. Datta, A. Dey, R. Jana, **P. P. Ray**, Temperature dependent performance of Al/ZnCdS Schottky diode and charge transport analysis, AIP Conf. Proc. 2016, 1728, 020065.
36. J. Datta, M. Das, A. Dey, R. Jana, **P. P. Ray**, Charge transport mechanism analysis of Al/CdS: Sr<sub>2</sub>+/ITO device under dark and light, AIP Conf. Proc. 2016, 1728, 020100.

**Dr. Joydeep Chowdhury**

37. Sannak Dutta Roy, **Joydeep Chowdhury**, Absorptive parameters of Malachite Green on Gold Nanocolloid: SERS and Fluorescence Spectroscopic Study, Proceedings of National Conference on Nanotechnology: Materials and Applications (NCoN:M&A) 2016" held on June16-17, 2016 .
38. Somsubhra Saha, Manash Ghosh, **Joydeep Chowdhury**, Silver coated gold nanoparticle assembled in Langmuir- Blodgett Film of DPPC: A sensitive SERS substrate, Proceedings of XXV International Conference on Raman Spectroscopy (2016), (ICORS: 2016) held between August 14- 19, 2016 at "Fábrica de Negócios" Conference Center, Fortaleza, Brazil.
39. Somsubhra Saha, Manash Ghosh, **Joydeep Chowdhury**, Self-assembly of Au nanocolloids in the organised Langmuir- Blodgett Film of PMMA: Template driven SERS active substrate, Proceedings of XXV International Conference on Raman Spectroscopy (2016), (ICORS: 2016) held between August 14- 19, 2016 at "Fábrica de Negócios" Conference Center, Fortaleza, Brazil.
40. **Joydeep Chowdhury**, Somsubhra Saha, Manash Ghosh, Self-assembly of metal nanocolloids entrapped in Langmuir Blodgett Film templates: Evidence of efficient SERS sensing platforms, Proceedings of International Conference on Functional Nanomaterials (ICFNM 2016)" held between September 28- 29, 2016 at Indian Institute of Engineering Science and Technology, Shibpur (ISET Shibpur).
41. Sannak Dutta Roy, **Joydeep Chowdhury**, Adsorption of Dyes on nanocolloidal gold surfaces: The key towards understanding the mechanism of SERS, Proceedings of International Conference on Functional Nano-Materials (IC-FNM 2016), held on 28-29 September, 2016 Organized by CoE-TEQIP II and MND-SMSE, Indian Institute of Engineering Science and Technology, Shibpur, India
42. Sumit Kumar Das and **Joydeep Chowdhury**, Self-assembly of Gold nanocolloids on the organised Langmuir- Blodgett Film of Liquid Crystal: Evidence of an efficient SERS sensing platform, Proceedings of Fourth International Symposium on Semiconductor Materials and Devices "to be held on 8<sup>th</sup>-10<sup>th</sup> March, 2017. Jadavpur University, Kolkata, India.

**Dr. S. Kumar**

43. Nanometric MgFe<sub>2</sub>O<sub>4</sub>: Synthesis, characterization and its application towards supercapacitor and electrochemical uric acid sensor by S. Majumder, **S. Kumar** and S. Banerjee, AIP Conference Proceedings, 1832(1) (2017) 050161.
44. Non-enzymatic H<sub>2</sub>O<sub>2</sub> sensing and photodetection study using Au-TiO<sub>2</sub> nanocomposite, S. Majumder, **S. Kumar** and S. Banerjee, AIP Conference Proceedings, 1837(1) (2017) 040001.

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45. Magnetic properties of nanosized Ni-Zn ferrites synthesized by hydrothermal method by S. Dey, R. Mondal, P. Dasgupta, A. Poddar, and **S. Kumar**, AIP Conference Proceedings 1832 (2017) 130055.
46. Superparamagnetic behavior of nanosized  $\text{ZnFe}_2\text{O}_4$  by S. Dey, R. Mondal, S. Majumder, P. Dasgupta, A. Poddar, S. Banerjee and **S. Kumar**, Materials Today Proceeding (Accepted for publication).

**Awards:**

**Dr. P. K. Paul & Dr. Bharati Tudu**

UGC Raman Post-doctoral fellowship

**Dr. D. Mandal**

INSA Visiting Scientist Fellowship

**Dr. Saikat Kumar Seth**

SERB Overseas Postdoctoral Award

**Collaborative Programme:**

**International Collaboration:**

FZ-Helmholtz Research Institute, Germany

University of Delaware, USA

University of Oulu, Finland

Ecole Polytechnique, France

Iowa State University, USA

Royal Institute of Technology, Sweden

University of Illinois at Urbana-Champaign, USA

Université Pierre et Marie Curie, France

Max Plank Institute, University of Griefswald, Germany

University of Illinois, Urbana Champaign, USA

Max Plank Institute of Colloids & Interface, Germany

Brandenburg University of Technology Cottbus, Germany

Osaka University, Japan

University of Ulster, UK

*University of Delaware, USA*

Nihon University

University of Montpellier, France

Texas Agri University, USA

Hanyang Univesity, South Korea

Max Planck Institute of Dynamics and Self Organization, Germany

CEO-SACLAY, France

University Pierre and Marie Curie, Paris, France

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University of Utah, Utah (USA)

Kapteyn Astronomical Institute, The Netherlands

**National Collaboration:**

TIFR, Mumbai

IUCAA, Pune

IACS, Kolkata

IIT, Kharagpur

IICB, Kolkata

CGCRI, Kolkata

SINP, Kolkata

SN Bose Institute, Kolkata

UGC DAE CSR, Kolkata & Indore

RRI, Bangalore

ITRC, Lucknow

NCRS, TIFR, Pune

IIA, Bangalore

VECC, Kolkata

CMERI, Durgapur

NPL, New Delhi

IEST, Shibpur

Tripura University

NIT Sikkim

Banaras Hindu University

Calcutta University

Cotton University, Guwahati

NIT, Durgapur

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SECTION B

[ACADEMIC REPORT.1.04.2016 TO 31.03.2017]

FACULTY COUNCIL OF INTERDISCIPLINARY STUDIES,  

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LAW & MANAGEMENT

## ADVANCED STUDIES ON INDUSTRIAL POLLUTION CONTROL ENGINEERING

Phone : 2457-2482/2698  
Director. : Dr. Avijit Bhowal  
E-mail : dir.advst@jadavpuruniversity.in

### Papers:

- [1] R. Gopinathan, **A. Bhowal**, Garlapati, Thermodynamic study of some basic dyes adsorption from aqueous solutions on activated carbon and new correlations, *Journal of Chemical Thermodynamics* 107 (2017) 182-188.
- [2] A. Das, **A. Bhowal**, S. Datta, Biomass characterization and adsorption mechanism of Cu(II) biosorption onto fish (CatlaCatla) scales, *International Journal of Environmental Engineering* 8(2016) 81-94.
- [3] M. Mondal, A. Ghosh, O N Tiwari, K Gayen, **P. Das**, M K Mandal, GopinathHalder, Influence of carbon sources and light intensity on biomass and lipid production of *Chlorella sorokiniana* BTA 9031 isolated from coalfield under various nutritional modes, *Energy Conversion & Management* 145 (2017) 247-254.
- [4] P. Banerjee, S. Roy Barman, A. Mukhopadhyay, **P. Das**, Ultrasound assisted mixed azo dye adsorption by chitosan- graphene oxide nanocomposite, *Chemical Engineering Research & Design* 117(2017)43-56.
- [5] S. Roy, **P. Das**, S Sengupta, S Manna, Calcium impregnated activated charcoal: Optimization and efficiency for the treatment of fluoride containing solution in batch and fixed bed reactor, *Process Safety and Environment Protection* 109(2017) 18-29.
- [6] S. Goswami, P. Banerjee, S. Datta, A. Mukhopadhyay, **P. Das**, Graphene oxide nanoplatelets synthesized with carbonized agro-waste biomass as green precursor and its application for the treatment of dye rich wastewater, *Process Safety and Environment Protection* 106(2017) 163-172.
- [6] P. Banerjee, S. Roy Barman, U. Roy, D. Sikder, **P. Das**, A Mukhopadhyay, Enhanced degradation of ternary dye effluent by developed bacterial consortium with RSM optimization, ANN modeling and toxicity evaluation, *Desalination & Water Treatment* 72(2017)249-265
- [7] M. Mukherjee, S. Goswami, P. Banerjee, S. Sengupta, **P. Das**, P. K. Banerjee, S. Datta, Ultrasonic assisted Graphene oxide nanosheet for the removal of phenol containing solution, *Environment Technology & Innovation*, <http://dx.doi.org/10.1016/j.eti.2016.11.006>
- [8] S. Roy, **P. Das**, S.Sengupta, Treatability Study using Novel Activated Carbon prepared from Rice Husk: Column study, Optimization using Response Surface Methodology and Mathematical Modeling, *Process Safety and Environmental Protection* 105(2017)184-193.
- [9] S. Roy, S. Sengupta, **P. Das**, Thermodynamics and Kinetics study of Defluoridation using Ca-SiO<sub>2</sub>-TiO<sub>2</sub> as adsorbent :Column studies and Statistical approach, *Korean Journal of Chemical Engineering*, 34(2017) 179-188.
- [10] S. Roy, S. Sengupta, **P. Das**, Integral approach of adsorption and chemical treatment of fluoride containing wastewater: Batch and Optimization using RSM, *Journal of Environmental Chemical Engineering*, 5(2017) 274-282.
- [11] P. Das, **P. Das**, Graphene oxide for the treatment of ranitidine containing solution: Optimum Sorption Kinetics by Linear & Non Linear Methods and Simulation using Artificial Neural Network, *Process Safety and Environmental Protection* 102(2016), 589-595,

- [12] P. Banerjee, P. Das, A.Jaman, **P. Das**, application of synthesized graphene oxide nanoplatelets for removal of ibuprofen in aquatic surface, *Process Safety and Environmental Protection* 101(2016) 45-53
- [13] K.Sinha, K.Aikat, **P. Das**, S.Datta, Dyeing of Modified Cotton Fiber with Natural Terminaliaarjuna Dye: Optimization of Dyeing Parameters Using Response Surface Methodology, *Environmental Progress & Sustainable Energy* 35(3) 2016, 719- 728.
- [14] **P. Das**, P. Banerjee, A.Jaman, P. Bhattacharya, Biodegradation of two Azo dyes using Dietzia sp. PD1: Process Optimization using Response Surface Methodology and Artificial Neural Network, *Desalination & Water Treatment* 57(16) 2016, 7293-7301
- [15] M.Satpathy, **P. Das**, Assessment on the Modeling of the Kinetic Parameter for the removal of crystal violet dye using Ag-soil nanocomposite: Linear and non-linear analysis, *Desalination & Water Treatment* 57(2016) 4073-4080
- [16] R.Rathour, **P. Das**, K.Aikat, Microwave-assisted synthesis of graphene and its application for adsorptive removal of malachite green: thermodynamics, kinetics and isotherm study, *Desalination & Water Treatment*.57(2016) 7312-7321.

**List of Projects:**

- [1] Investigator: Dr. P Das  
Project Title: Removal of pharmaceutical derivatives present in waste water by advanced oxidation integrating with microstructure and rotating packed bed of grapheme (G)/Graphene oxide (GO)/GO-metal nanocomposites.  
Funding Agency: DST, Duration: 2017-2020
- [2] Investigators: Dr. P Das  
Project Title: Green synthesis of iron nanoparticles from manglicolous fungi of Indian Sunderban and their application in sequestration of heavy metals from contaminated water  
Funding Agency: DBT, Duration: 2016-2019
- [3] Investigators: Prof. A. Bhowal and Prof. S. Datta  
Project Title: Application of Process Intensification in food processing industries  
Funding Agency: UGC, Duration: 2015 – 2018
- [4] Investigator: Dr. P Das  
Project Title: Bioremediation of oil spills and removal of aromatic hydrocarbons using marine microorganisms with nanoparticles: Treatment efficiency, optimization, modeling and simulation studies  
Funding Agency: MOES, Duration: 2014-2017
- [5] Investigators: Dr. P Das, Prof A Bhowal, Prof S Datta, Prof A Mukhopadhyay  
Project Title: Assessment and modeling on decolourization of textile effluents by coupled with biodegradation in a fluidized bed bioreactor and evaluation of reactor performance  
Funding Agency: WBDBT Duration: 2014-2017

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## **AUTOMOTIVE ENGINEERING**

Phone : + 91-33- 2414-6927  
Int. : 2457-2242  
Director. : Prof. Ranajit Kumar Chakrabarti  
Jt. Director : Prof. Gautam Sutradhar  
E-mail : dir.auto@jadavpuruniversity.in

### **1. Areas of Research Activities :**

Research on development of a new generation of Automotive Engineers.

Development of methoding of Engine Castings.

Development of new materials to be used for different automobile components and their microstructure interpretation.

Energy economy analysis and reduction of environmental pollution in Foundries producing automobile components by modifying the existing cupola system.

Research on preparation of sand suitable for automobile castings.

### **2. Major Research Projects :**

a) "R&D and Innovation Centre for Howrah Foundry Cluster" sponsored by "Technology Information Forecasting and Assessment Council (TIFAC), Department of Science and Technology, Government of India.

Principal Investigator – Prof. R.K. Chakrabarti

b) "Modification of divided blast cupolas and Conversion of conventional cupolas into divided blast cupolas for Howrah Foundries" - a project sponsored by Technology Information Forecasting and Assessment Council (TIFAC), Department of Science and Technology, Government of India.

Principal Investigator – Prof. R.K. Chakrabarti

### **3. Seminar/Workshop/ Conference/ Symposium Organized :**

Inauguration ceremony for R&D and Innovation Centre for Howrah Foundry Cluster building was organized at Indian Institute of Chemical Engineers, Jadavpur University and inaugurated by Dr. Anil Kakodkar, Chairman, Technology Information Forecasting and Assessment Council (TIFAC), Department of Science & Technology (DST), Government of India, New Delhi. Eminent foundry technologist, entrepreneurs and expert members from IFA, HFA & IIF attended the inaugural function.

A seminar/workshop is being organized in large scale in collaboration with IFA, HFA and IIF shortly.

### **4. Major Achievements :**

**The project on R&D and Innovation Centre for Howrah Foundry Cluster has achieved the following major achievements.**

- **Casting Simulation Laboratory**

A laboratory equipped with the state of the art computational facilities including advanced casting simulation platforms such as ProCast and advanced solid modeling software namely ProE are being extensively used right from the stages of product inception to its production stage

encompassing all the sequential stages of modeling, simulating, analyzing and decision making phases of product development and deployment in industrial application.

Advance training on the CAD software PRO-E and casting simulation software PRO-CAST have been imparted to the project staff for honing their skill for simulation projects. Facilities acquired have been utilized for solid modeling and simulation of casting process of six foundries. Some important casting simulation jobs had been completed and some more viz. Calcutta Spring, Kejriwal Castings and Govind Steel Private Ltd. are in the pipeline.

● **Laboratories for Chemical/Spectroscopic Analysis, Metallurgical/ Metallographic Testing :**

The Nodel Centre is now fully equipped to take up the following Design and Testing Assignment:-

- 1) Metallography including In-Situ Metallography of casting at the foundry through Leica DMIL Metallurgical Microscope of German make and Apollo make In-Situ Kits.
- 2) NDT-Portable Dynamic Hardness Tester of Askib Engineers Pvt. Ltd. Make Hardness Testing Machine.
- 3) Hardness, U.T.S, Y.S. PS & Elongation through Fine Testing make 20 Ton UTM.
- 4) Chemical Analysis facilities using Strohein Apparatus etc.

We have been receiving samples for Metallographic Analysis almost on regular basis from M/s Dhar & Company Private limited and M/s Calcutta Springs Limited. We have also received samples from Kejriwal Castings Private Limited, NSI and Shree UMA Foundries PVT. LTD. and completed Metallographic Analysis for them. We expect few more foundries would response soon for testing on regular basis for their export oriented job. Testing facilities through UTM and Hardness testing machine have already been utilized by two foundries and expect to receive good response from other foundries also soon.

**B. Mobile Casting Clinic :**

The mobile casting Clinic, inaugurated in 30<sup>th</sup> April, 2009 and started functioning on regular basis from July 2009. The Mobile Casting Clinic is provided with sand testing equipments as well as recently installed temperature measuring device combined with carbon equivalent analyzer.

An expert also accompanies the Mobile Casting Clinic who advises the industry regarding the reasons and remedies of the routinely encountered defects. Mobile Van moves along a route predetermined route by the Foundry Association for carrying our sand testing at nominal rates. Mobile Casting Unite has received an overwhelming response from foundries indicating and justifying its timely introduction.

The Mobile Casting Clinic while on service at various foundries of Howrah Cluster carries out the following testing of sand at nominal yearly membership/registration fees and suggesting remedies of defects arising out of sand practice.

- Determination of Moisture Content
- Permeability Test
- Mould Hardness Test
- Core Hardness Test
- Green Compressive Strength Test
- Comp actability Test
- Determination of AFS grain Fineness No.
- Determination of Total Clay Content.

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The Mobile Casting Clinic has also got the following additional test facilities for the foundries-

- Carbon Equivalent, Carbon %, Silicon % and temperature measurement
- Consultancy facility also available on request

Due to introduction of mobile casting clinic Howrah Foundry Cluster is not only happy to receive the service for testing facilities, they have become conscious also to go for quality casting, and as a result many foundries now in Howrah have set up their own sand testing laboratory.

The year –wise results of the Mobile Casting Clinic with respect to membership and revenue generation are as follows:-

**Consolidated Statement of Target, Revenue Generation and Expenditure Incurred:**

**(A) Revenue Generation**

	1	2	3	4
	(FROM 07/05/2016 UPTO 6TH MAY 2017	(FROM 07/05/2015 UPTO 6TH MAY 2016	(FROM 07/05/2014 UPTO 6TH MAY 2015	(FROM 07/05/2013 UPTO 6TH MAY 2014
<b>Total Number of member Enrolled</b>	<b>20</b>	<b>37</b>	<b>36</b>	<b>46</b>
<b>Membership and Testing</b>	<b>Rs.91,700.00</b>	<b>Rs.1,50,500.00</b>	<b>Rs.1,59,400.00</b>	<b>Rs.1,70,000.00</b>
<b>Consultancy</b>	.....	.....	.....	.....
	5	5	7	8
	(FROM 07/05/2012 UPTO 6TH MAY 2013	(FROM 07/05/2011 UPTO 6TH MAY 2012	(FROM 07/05/2010 UPTO 6TH MAY 2011	(FROM DATE OF INCEPTION) TO 6TH MAY 2010
<b>Total Number of member Enrolled</b>	<b>54</b>	<b>57</b>	<b>56</b>	<b>36</b>
<b>Membership and Testing</b>	<b>Rs.2,19,600.00</b>	<b>Rs.1,77,800.00</b>	<b>Rs.1,51,650</b>	<b>Rs.84,000.00</b>
<b>Consultancy</b>	.....	<b>Rs. 8,000.00</b>	<b>Rs. 7,000.00</b>	.....

**Consultancy Services through Mobile Casting Clinic :**

Manufacture of high Phosphorous cast iron Rly brake block from cupola metal has been optimized and demonstrated in a Howrah foundry shop.

**Other Activities :**

• **Modification of Divided Blast Cupola (DBC):**

An extended project work sponsored by TIFAC DST to the Jadavpur University deals with the proper modification of the DBCs of Howrah Foundry Cluster with an objective of energy economy by reduction of coke rate.

Out of Five numbers of foundries in Howrah for which the modification work for their existing cupolas are to be carried out under the project, three numbers namely **M/s. Dhang Iron Company, Shree Shyam Iron Foundry and Super Iron Foundry** have already been completed satisfactorily. It was found that with the modifications, the cupolas could become much more energy efficient and coke consumption could go down around 30% and with an appreciable in Spm level. The cost involved for modifications recovered by the entrepreneurs in 4/6 months time.



Two more foundries who are expected to go for modification soon are namely **Om Iron Foundry and Dee Gee Industries**.

- **Docuometry Film on Howrah Foundry Cluster:**

An extended project of R &D and innovation Centre for Howrah Foundry Cluster a film highlighting the practices followed & need for improved operation and ideal foundry practices to be followed have been produced already. The dubbing of the film in Hindi as well as in Bengali have also been completed. The CD for all the above films also has been made.

Dr. Prabhat Ranjan Executive Director-TIFAC recently visited R&D Centre in connection with the project monitory committee meeting. He had highly appreciated implementation of the project and congratulated each team member of the School of Automotive Engineering, who was associated with this project. Dr. Ranjan requested Prof. Ranajit Chakrabarty, Director, School of Automotive Engineering, Jadavpur University to highlight the success story of the project with the details of background of the cluster, activities undertaken by the R&D and Innovation Centre at Jadavpur University, a report on implementation of the centre along with the audited fund utilization certificate.

The project activities of the School conducted an indepth study of the background of Howrah Foundry Cluster and also a study on the Technology Gap Analysis on the Howrah Foundry Cluster including that on Automotive Components.

It was appreciated by Technology Information, Forecasting & Assessment Council (TIFAC) that this R&D and Innovation centre and Mobile Casting Clinic have been an excellent infrastructure to address the R&D and services, needs of the foundry industry in and around Howrah. It was also acknowledged by Technology Information, Forecasting & Assessment Council (TIFAC) that such kind of R&D infrastructure was not available anywhere in the eastern part in India.

**Project Achievement Highlights:**

- Installation and successful running of nodal centre equipped with mechanical testing laboratory, metallographic laboratory, chemical laboratory including some sand testing facilities.
- Installation and successfully running of mobile casting clinic with revenue generation.
- Generation of awareness amongst foundry owners for setting up their own sand testing lab. And using facility of mobile casting clinic.
- Installation and successful running of casting simulation serving more than 10 foundries.
- Successful modification of divided blast cupola leading to reduction of coke consumption around 33%.
- Production of documentary film on Howrah Foundry Cluster.

Extension proposals have been submitted to TIFAC involving four modules of training programme for foundry technicians, supervisory personnel and undergraduate students of Mechanical Engineering, proposed to be conducted by the R&D and Innovation Centre with the support from TIFAC.

Technology Information, Forecasting & Assessment Council (TIFAC), Department of Science & Technology has advised that

- R&D and Innovation Centre for Howrah Foundry Cluster at the School of Automotive Engineering, Jadavpur University to prepare a detailed project completion report highlighting various project achievements.
- Unspent balance of the project towards non recurring expenditure may be utilized to meet the recurring expenditure for the project which should continue with the operation of the Nodal Centre and the Mobile Casting Clinic.
- The School of Automotive Engineering may utilize the revenue generated from the project towards meeting the project recurring expenditure for continuing the operation of the Nodal Centre and the Mobile Casting Clinic.
- TIFAC would continue to act as the knowledge partner for the “R&D and Innovation Centre” and mentor the Centre towards its planned activities in the future. TIFAC would extend technical and managerial support towards the Phase-II of the project for training and other allied programmes.
- **Future Extension Projects for R&D and Innovation Centre for Howrah Foundry Cluster**

**I. Identification and Introduction of value added products with higher project margins for the Howrah Foundries. This is essential for the Howrah Foundries to survive.**

Terms of Reference of the above work.

- a) Manufacturing of value added products.
- b) Technology requirement for the products.
- c) Technology source for the products.
- d) Cost of Technology for the products.
- c) Lead time for the foundries for Technology adaptation (Switch over time).

**II. Introduction of Low Cost Automation for different processes in the Foundry. The areas where such automation is required:**

- a) Charging of the Cupola Furnace.
- b) Casting process used by the foundries.

Terms of Reference

- a) Manufacturing of value added products.
- b) Technology requirement for the products.
- c) Technology source for the products.
- d) Cost of Technology for the products.
- e) Lead time for the foundries for Technology adaptation (Switch over time).

**III. Optimization of Cupola Design for achieving**

- a) Best Combustion Rate.
- b) Highest Melt/Coke ratio.
- c) Lowest pollution.
- d) Lowest energy consumption.

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For the above, the following Terms of Reference is required.

- a) Optimization of Air Blast System.
- b) Maximization of Combustion efficiency by Maximum Heat Transfer during Combustion.

A team of experts from Academic institution & Industries shall be formed for achieve the above.

**IV) Survey of the status of Technology and Quality issues in Aluminium foundries in and around Howrah.**

**V) FOUNDRY LABORATORY TECHNICIAN DEVELOPMENT.**

**This proposal envisages conducting three types of short term courses as detailed below:-**

<b>Name of the Course</b>	<b>Metallographic Laboratory Practice</b>	<b>Sand testing, Mechanical testing &amp; Carbon equivalent determination</b>	<b>Awareness of Modeling Simulation of Casting</b>
Duration of the Course	3 days. (12.00 AM – 5.00 PM)	3 days. (12.00 AM – 5.00 PM)	5 days. (12.00 AM – 5.00 PM.)
Minimum qualification of admission.	School Final or Equivalent. (10 <sup>th</sup> standard)	School Final or Equivalent (10 <sup>th</sup> standard)	Pass in senior Secondary/H.S. (Science) Examination with some knowledge of computer & drawing preference will be given to Engineering diploma holders/ BSC graduates.
Maximum no of candidates/batch.	Five	Five	Five
Course fee.	Rs. 1,200.00 per head	Rs. 1,500.00 per head.	Rs. 3,000.00 per head.
Course content.	1.Introduction to metallurgical microscope. 2.Preparation of grey and ductile iron samples. 3.Familiarity with the microstructures of different types of cast irons. 4.Grabbing the microstructure in the computer and printing.	1.Standard sand, Sample preparation moisture test, hardness preparation moisture test, hardness test, permeability test, GCS test, Compatibility test, determination of GFN 2.Mechanical testing-Tensile Brinel hardness testing, Familiarity with standard sample design. 3.Determination of CE%, %C, % Si in Cast Iron meet in a foundry.	1.Construction of 3D models from 2D drawings. 2.Fixation of partition line 3.Placement of runners ingates. & risers. 4.Dimensioning of above through repeated iteration.

## BIOSCIENCE & ENGINEERING

Phone : +91-33-2414-6567  
Int. : 2457-2958  
Director : Dr. Piyali Basak  
E-mail : dir.bioengg@jadavpuruniversity.in

### 1. A. Courses Offered:

Name of the Course: M.E. (Biomedical Engineering)  
Duration of the course: 2 years  
Intake of students: 11 per year  
No. of Students Enrolled: 9

### 1. B. Number of Faculty Members :

Professors (2 Vacant)  
Associate Professor 1 (Vacant)  
Assistant Professor 3 (1 Vacant)

### 2. A. Area of Research Activities: (Broad Areas)

Application of various branches of Engineering towards solutions of Bio-Science and Health related problems for the benefit of mankind. Current research activities include but not limited to following:

- i. Biomedical Instrumentation including development of Biomedical Sensors and Signal Conditioning Systems. Advanced Material for High Energy Imaging Devices etc. including their applications in Design of Bio-Implants
- ii. Medical Imaging and Image Processing. Analysis and Processing of Biomedical Signals for Diagnosis and Therapy including applications involving Mathematical Modeling, Human Computer Interfacing, Artificial Intelligence, Rehabilitation Engineering etc.
- iii. Biomaterials. Development and characterization of Bio-polymers in different form include membranes, nano-particle etc. which can be used as Bioactive Coatings, wound dressing. Evaluate Bio-Degradability and Drug Delivery property of different biopolymers. Biocompatibility testing including hemo-compatibility testing, cytotoxicity testing, MTT assay etc. Tissue Engineering.
- iv. Bioremediation of industrial waste by using microbial consortium.
- v. Development of anticancer drug from natural sources.
- vi. Biomechanics related to Soft and Hard Biological Tissues, Bio-Fluids, and Application of Finite Element Methods for analysis & Design of Biomechanical Systems.

### 2. B. Major Research Project :(Departmental/Individual-Name of the Project/Funding Agency)

Individual-Studies and Applications of II-VI compound based Semiconducting Devices/ UGC-Major, PI: Dr. Monisha Chakraborty & Co-PI: Prof (Dr.) Biswajit Ghosh

Individual-Strategic Application of Microorganisms for Decontamination of Toxic Compounds with special reference to Azo Dyes in Industrial Waste/ WB-DBT, PI: Dr. Piyali Basak

Individual-Evaluation of Moringa Oleifera leaf, flower, fruit extract, and its nano fabricated molecule: a comparative Study on Cancer cell line/ WB-DST, PI: Dr. Piyali Basak

**3. A. Invited Lectures Delivered/Sessions Chaired: (Name of the Teacher, Type of Participants, Name of the Seminar / Conference etc. Place, Duration)**

1. **Dr. Piyali Basak**, Invited Talk, National Conference on Advance Engineering Materials (NCAEM 2016) Gandhi Institute of Engineering and Technology (GIET), Gunupur, Odisha India; 23rd & 24th July 2016.
2. On “**Technology and National Service Scheme**” at Lady Brabourne College, Kolkata, India at NSS Programme 2016
3. On “**Image Processing in Biomedical Engineering**” at One Day Seminar on Application of Image Processing in Chemical Engineering, Biology and Medicine, at Institution of Engineers (India), Sir R. N. Mukherjee Hall, 8, Gokhale Road, Kolkata-700020, India, 2016

**3. B. Seminar/Workshop/Conference/Symposium Attended: (Name of the Teacher, Name of the Paper Presented, Name of the Seminar, Place, Duration)**

**I. International Conferences**

1. Basak P, Paul S and Majumder R, “Invitro Anticancer Study of Aloe vera leaf Extract on MCF-7 Cell Lines”, 5th BIENNIAL INTERNATIONAL CONFERENCE ON NEW DEVELOPMENTS IN DRUGS DISCOVERY FROM NATURAL PRODUCTS AND TRADITIONAL MEDICINES, NIPER Mohali,India on 18-20 Nov, 2016.
2. Oral presentation for conference publication., Title - Development of a fiber optic sensor for online monitoring of thin coatings, Authors-Poulomi Pal, Animesh Halder, Probir Kumar Sarkar, Nabarun Polley, Piyali Basak, Samir Kumar Pal, Place- Guwahati,Assam, Duration - 9 to 13 January 2017, International, International Conference for Advances in Nanotechnology, Proceedings
3. International Conference on Reproductive Health with Emphasis and Strategies for Infertility, Assisted reproduction and Family planning ISSRF-2017, January 23 to 25, 2017, New Delhi, 27th Annual meeting of the Indian Society for the Study of Reproduction and Fertility, Poster No: P2-92Title: STYRENE MALEIC ANHYDRIDE FORMULATED POLYELECTROLYTE HYDROGEL WITH SELECTIVE ANTIMICROBIAL PROPERTY, POTENTIALLY FAVORABLE FOR THE APPLICATION AS FEMALE CONTRACEPTIVE IMPLANT Bhuvaneshwaran Subramanian¥ â, Arun Prabhu Rameshbabu#, Kuntal Gosh£, Pradeep K Jha¥, Piyali Basakâ, Rakhi Jha¥, and Sujoy K. Guha
4. Biswas.S, Bhattacharjee. A, Basak. P: “Effect of Tannery Effluent on Germination and Early Seedling Growth of Oryza sativa var. IET 4786” ;(oral presentation) full paper accepted for publication in book entitled “Utilisation and Management of Bioresources”, Springer ;International Conference on Solid Waste Management, Jadavpur University,India, November 24-26, 2016
5. Biswas.S, Bhattacharjee. A, Basak. P: “Effect of Remazol Brilliant Blue Dye on Germination and Early Seedling Growth of Oryza sativa var. IET 4786” ; (oral presentation) abstract published in Book of Papers for International Conference on Textile and Clothing: Present and Future Trends, ISBN: 978-93-84923-15-0; “International Conference on Textile and Clothing: Present and Future Trend” Centre for Research in Nanoscience and Nanotech, Kolkata, India, January 3-5, 2017

6. International Conferences Guha Ray P, Biswas S, Basak P, Roy S, "Surface Modification of Eggshell Membrane for Immobilization and Detection of Oligonucleotide", ICFNM 2016, IEST Shibpur, Howrah, India, September 28 – 29 2016.
7. A. Bhattacharya, A. Sarkar and P. Basak, "Time Domain Multi-Feature Extraction and Classification of Human Hand Movements Using Surface EMG," in 2017 International Conference on Advanced Computing and Communication Systems (ICACCS -2017), Jan. 06 – 07, 2017, Coimbatore, INDIA, Coimbatore, 2017. (Accepted and presented)
8. A. Bhattacharya, A. Sarkar and P. Basak, "Quality Evaluation of Wavelet Functions for Myopulse suppression in Electrocardiogram," in International conference on Signal Processing, Communication, Power and Embedded System (SCOPEs)-2016, October 03-05, Paralakhemundi, Odisha, India, 2016.
9. Name of the conference: ICBSII (3rd International Conference on Biosignals, Images and Instrumentation), Type of presentation: Oral presentation, Place: SSN College of Engineering, Kalavakkam, Tamilnadu, India, Duration: 16th March 2017-18th March 2017, National/International : International, Title of presentation : Development of Thermistor based low cost high sensitive respiration rate measurement system using audio software with audio input. Authors : Tarak Das, Sayanti Guha, Nisha Banerjee, Piyali Basak, Proceedings/Publication: Proceedings (Status as on date: Accepted, presented)
10. Name of the conference: ICETSMI-(2nd International Conference on Engineering Technology, Science and Management Innovation ), Type of presentation: Skype presentation, Place: National Institute of Technical Teachers Training & Research (NITTTR), Chandigarh, India, Duration: 15th January 2017, National/International : International, Title of presentation : Prediction of Inferior Zone Myocardial Infarction using Welch's Power Spectral Density Estimation and Discrete Cosine Transform., Authors : Tarak Das, Sayanti Guha, Piyali Basak, Proceedings/Publication : Publication (Status as on date: Accepted, presented) [Published at-> International Journal of Engineering Technology, Science and Research (IJESR), ISSN 2394-3386, Volume-4, Issue-1]
11. Samrat Paul, Namrata Maity, Piyali Basak. "Development and characterization of Phytonanomedicine using moringa oleifera leaf extract" Oral presentation (OP-15) at Indian Science Congress (International), Section IV: Engineering Science, PP: 43-44 Mysuru University (3rd-7th January. 2016).
12. Piyali Basak, Samrat Paul, Ranabir Majumder. "Invitro cytotoxic study of Aloe vera Whole leaf extract on PBMC and Breast cancer cell line" Oral Presentation. International (IEEE sponsored conference). PUNE, I2CT conference, 7<sup>th</sup>-9<sup>th</sup> April, 2017.
13. A. Banerjee and D.N. Tibarewala: "Electrooculogram Based Approach for Prevention of Dry Eye Condition in Computer Users", Proceedings of the IEEE First International Conference on Control, Measurement & Instrumentation (CMI), pp 503-507, 2016.
14. Debanjan Parbat and Monisha Chakraborty, Multi-Scale Entropy Analysis of surface Electromyography signals during biceps muscle contraction under varying loads, published in the Computational Science Symposium 2017 Department of Computational and Data Sciences **Indian Institute of Science (IISc), Bangalore**, India, 2017.



15. Monisha Chakraborty and Debanjan Parbat, Fractals, Chaos and Entropy analysis to obtain Parametric Features of surface Electromyography signals during Dynamic Contraction of Biceps Muscles under Varying Load, published in **IEEE** Sponsored 2nd International Conference for Convergence in Technology (I2CT), Pune, India, 2017.
16. Monisha Chakraborty, Tithi Das and Dipak Ghosh, "Non-Linear Fractal Analysis of ECG signal collected from Maternal and Normal Sinus Women", 3rd Int. Conf. on Recent Advances in Information Technology (RAIT), **IEEE** pp-123-127, 2016
17. Monisha Chakraborty, Tithi das and Dipak Ghosh, "Comparative Analysis of Different Fractal Methods in Studying Post-ictal ECG signals of Epilepsy Patient", **IEEE** First International Conference on Control, Measurement and Instrumentation (CMI), India, 2016
18. Monisha Chakraborty, Tithi Das and Dipak Ghosh, "Detecting the Origin of Multifractality of EEG Signals with Sleep Apnea Syndrome using Multifractal Detrended Fluctuation Analysis Method", 2nd International Conference on Control, Instrumentation, Energy & Communication (CIEC), **IEEE**, 2016
19. Monisha Chakraborty and Debanjan Parbat, "Comparative study of MFDFA technique for Isometric and Isotonic muscle Contraction Static and Dynamic Study of sEMG under varying load", 3rd Int. Conf. on Recent Advances in Information Technology (RAIT), **IEEE**, 2016
20. Monisha Chakraborty and Debanjan Parbat, "Fractal Analysis of sEMG signal under varying load conditions", 2nd International **IEEE** Conference on Control, Instrumentation, Energy and Communication (CIEC), 2016
21. Monisha Chakraborty and Manishankar Mondal, "Comparative Study of DR Image De-noising Method Based on Quality Parameters", 3rd International Conference on Foundations and Frontiers in Computer, Communication and Electrical Engineering, 2016
22. Debdeep Sikdar and Monisha Chakraborty, "Comparative Study of parameters of Multifractal Detrended Fluctuation Analysis on EEG bands", 2016 International Conference on Systems in Medicine and Biology, **IEEE**, IIT Kharagpur, 2016

## **II. National Conferences**

1. Name of the conference: ECON 2017 (18th Joint annual conference of Indian Epilepsy Association & Indian Epilepsy Society), Type of presentation: Poster presentation, Place: Hotel Maurya, Patna, Bihar, India, Duration: 17th February 2017-19th February 2017, National/International : National, Title of presentation : Classification of EEG signals in controls and epileptic patients, Authors : Sayanti Guha, Arijit Ghosh, Piyali Basak, Proceedings/Publication : Proceedings (Status: Presented)
2. Basu, A., Sarkar, A., & Basak, P., Comparative QSAR modelling Study of phenol containing mast cell stabilizers, UGC Sponsored National Seminar on "Differential Equations and Lie Groups", Department of Mathematics, Bangabasi Evening College, 10-12 November, 2016., National
3. Basu, A., Sarkar, A., & Basak, P., CHEMISTRY BEHIND NATURAL MAST CELL STABILIZERS, UGC Sponsored National Level Seminar on "Chemistry in Human Life-Current Aspects, Department of Chemistry and Microbiology, Gurudas College, December 9-10 , 2016, National

4. Basu, A., Sarkar, A., & Basak, P., In silico genome wide analysis of expansin genes in barley, 'UGC SPONSORED NATIONAL SEMINAR' on 'RECENT ADVANCES IN BIOLOGICAL SCIENCES', Department of Microbiology, Gurudas College, 17th and 18th February, 2017, National
5. Rania Indu, Anjan Adhikari, Piyali Basak, Tapas Kumar Sur, Swati Bhattacharyya, Anup Kumar Das. "Evaluation of Effect of Concomitant Drug Administration in In vivo Models" 26th Annual State Conference of Indian Pharmacological Society West Bengal Branch, 2016, Abstract No.: PP-09, Page- 92.
6. Rania Indu, Anjan Adhikari, Piyali Basak, Tapas Kumar Sur, Anup Kumar Das and Susanta Kumar Bandyopadhyay. "Evaluation of the Effect of Concomitant Administration of Antidiabetics and Hypolipidemics in In vivo Models", 1st Regional Science and Technology Congress, 2016, Presidency Division, Kolkata, Abstract No.: OP-21, Page- 319.

**3. C. Seminar/Workshop/Conference/Symposium Organized: (Name of the Teacher, Name of the Paper Presented, if any, Name of the Seminar, Place, Duration)**

Dr. Piyali Basak, TEQIP-II Sponsored Seminar on Emerging Trends in Biomedical Engineering and Computational Biology, K.P Basu Memorial Hall, Jadavpur University, 27th March 2017.

**4. A. Books/Monographs etc. Published: (Name of the Teacher, Name of the Book, Name of the Publisher)**

1. Basu, A., Basak, P., & Sarkar, A. (2016). Molecular-Docking-Based Anti-Allergic Drug Design. (pp. 232-248), Applied Case Studies and Solutions in Molecular Docking-Based Drug Design In series of Pharmaceutical Sciences: Breakthroughs in Research and Practice, Publisher: IGI Global, ISBN13: 9781522517627|ISBN10: 1522517626|EISBN13: 9781522517634|DOI: 10.4018/978-1-5225-1762-7.
2. Konar, D. N. Tibarewala, S. Bhattacharyya, and A. Khasnobish: "Non-Invasive HumanComputer Interfaces for Rehabilitative Applications", Series Title: Biosystems & Biorobotics, Springer, Heidelberg, Germany
3. S.K. Nayak, R.D. Shukla, I. Panda, B. Champaty. G. Thakur, B. Mohapatra, D.N. Tibarewala and K. Pal: "Effect of Slow and Fast Music on the Autonomic Nervous System and Cardiac Health: A Preliminary Investigation", In Classification and Clustering in Biomedical Signal Processing, Chapter 9, IGI Global, 2016.
4. Uvanesh K., S.K. Nayak, B. Champaty. G. Thakur, B. Mohapatra, D.N. Tibarewala and K. Pal: "Classification of Surface Electromyogram Signals Acquired from the Forearm of a Healthy Volunteer", In Classification and Clustering in Biomedical Signal Processing, Chapter 13, IGI Global, 2016.
5. Uvanesh K., S.K. Nayak, B. Champaty. G. Thakur, B. Mohapatra, D.N. Tibarewala and K. Pal: "Development of a Surface EMG Based Control System for Controlling Assistive Devices:A Study on Robotic Vehicle", In Classification and Clustering in Biomedical Signal Processing, Chapter 14, IGI Global, 2016.
6. B. Champaty. S.K. Nayak, G. Thakur, B. Mohapatra, D.N. Tibarewala and K. Pal: "Development of Bluetooth, Xbee and Wi-Fi Based Wireless Control Systems for Controlling Electric-Powered Robotic Vehicle Wheelchair Prototype", In Classification and Clustering in Biomedical Signal Processing, Chapter 15, IGI Global, 2016.

7. Gautam Majumdar, Monisha Chakraborty and M. S. J. Hashmi, "Production of Surgical Tools and Devices" Reference Module in Materials Science and Materials Engineering. Oxford: Elsevier; 2016. pp. 1-33. ISBN: 978-0-12-803581-8
8. Gautam Majumdar, Monisha Chakraborty and M. S. J. Hashmi, "Fine Grinding of Semiconductor Materials: Review of Past and Current Practices", Reference Module in Materials Science and Materials Engineering. Oxford: Elsevier; 2016. pp. 1-14. ISBN: 978-0-12-803581-8
9. Monisha Chakraborty and M. S. J. Hashmi, "An Overview of Biosensors and Devices", Reference Module in Materials Science and Materials Engineering. Oxford: **Elsevier**; 2017. (Accepted)
10. P. Murphy, D. Munshi P.A. Kurian, A. Lakhtakia, R.V. Bartlett and Monisha Chakraborty, "Nanotechnology, Society and Environment", Reference Module in Materials Science and Materials Engineering. Oxford: **Elsevier**; 2017. (Accepted)

**4. B. Articles Published in Journals: (Including National/International & Peer-reviewed Journals)**

*(Name of the Teacher, Name of the Articles, Name of the Journal, Date of Publication, Volume)*

1. S. Patra, P. Basak, and **D.N. Tibarewala**: "Synthesis of Gelatin Nano/Submicron Particles by Binary Nonsolvent Aided Coacervation (BNAC) Method", *Materials Science and Engineering: C*, Vol. 59, pp310-318, 2016.
2. Basak Piyali, Paul Pritha, Kundu Torsha, Mallick Priyadarshini, Evaluating The Anti-Microbial Effect Of Eugenol Extracted From Ocimum Sanctum, *Journal of Drug Delivery and Therapeutics*, 6(5), 1-5, 2016.
3. Basu, A., Basak, P., & Sarkar, A. (2016). Transcriptional Regulatory Network Analysis of Expansin Family Gene in Rice, Proceedings of UGC-Sponsored State Level Seminar on "Moder Aspects of Plant Sciences with Special emphasis on Biodiversity and Conservation", Acharya Jagadish Chandra Bose College
4. Oral presentation for conference publication., Title - Development of a fiber optic sensor for online monitoring of thin coatings, Authors-Poulomi Pal, Animesh Halder, Probir Kumar Sarkar, Nabarun Polley, Piyali Basak, Samir Kumar Pal, Place- Guwahati, Assam, Duration - 9 to 13 January 2017, International, International Conference for Advances in Nanotechnology, Proceedings
5. S. Paul, A. Banerjee, R. Ghoshal, and D.N. Tibarewala: "Development of Ultrasonic Tachography System for Gait Analysis", *International Journal of Biomedical Engineering and Technology*, Vol. 20 (1), pp 66-95, 2016.
6. Monisha Chakraborty and Sugata Bhattacharyya, "Sigmoid-growth curve of lattice-constant against annealing-temperature of  $Cd_{1-x}Zn_xTe$  thin films and its structural, optical and morphological characteristics", *Materials Science in Semiconductor Processing*, **Elsevier**, 53 (2016) 47-55
7. Gautam Majumdar, Nishantika Biswas, A. Pramanik, Rajat Shubhro Sen and Monisha Chakraborty, Optimization of mass deposition and surface roughness for ternary Ni-Cu-P electroless coating using VIKOR method, *Advances in Materials and Processing Technologies, Advances in Materials and Processing Technologies*, **Taylor & Francis**, 3(2): (2017), 186-195

**5. Collaborative Programmes:**

Research Collaboration with:

1. Zoology Department, Burdwan University
2. Dublin City University, Ireland
3. IIT Dhanbad
4. Dept. of Veterinary Surgery & Radiology, W.B. University of Animal & Fishery Sc.
5. CSIR-CGCRI
6. C.V. Raman Centre for Physics and Music, Jadavpur University
7. Department of Mechanical Engineering, Jadavpur University
8. School of Energy Studies Jadavpur University
9. Computer Science Engineering Department, Jadavpur University
10. Pharmaceutical Technology, Jadavpur University
11. Life Science & Biotechnology, Jadavpur University

**6. Major Achievements:**

**Review Editor** of Reference Module in Materials Science and Materials Engineering. Oxford: **Elsevier**

Research work of one of the PhD scholar has been selected for presentation in the Young scientist award Programme in Indian Science Congress

School has successfully introduced IEEE-EMBS chapter

**\* Research Scholars Awarded :**

- a) Ph.D. / D.Phil. / D.Litt. Complete title of the thesis to be mentioned
  1. Suman Ghosal–Parameters involved in protein coding, long noncoding and circular RNA target regulation by miRNAs and their impact on diseases in human
  2. Shaoli Das–Computational identification of small RNA targets on protein coding and long noncoding RNAs and the effect of competing endogenous RNAs
  3. Anwesha Banerjee–Electrooculographic Interface(s) for Rehabilitative Application(s)
  4. Tithi Das–A Study on Similarity in Fluctuations of Geophysical and Biophysical Systems

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**COGNITIVE SCIENCE**

Phone : + 91-33-2414-6720

Int. : 2457-2357

Director.: Dr. Amrita Basu

E-mail : dir.cognitive@jadavpuruniversity.in

**Prof. Amita Chatterjee, Professor Emeritus**

**1. Area of Research Activities:**

Perception, emotion, reasoning, e-learning, History and Philosophy of Cognitive Science

**2. Major Research Project:**

1. UPE II, UGC

**3. Invited Lectures Delivered/ Sessions Chaired:**

1. Chaired the Matilal Lecture delivered by Gayatri Chakrabarti Spivak, at RMIC on 1 June 2016
2. Gave a lecture at Psychoanalytical Society, Kolkata, Introducing the book *The Scientific Status of Psycho-analysis: Evidence and Confirmation* by Pushpa Mishra, 18<sup>th</sup> June, 2016.
3. Gave the keynote lecture in the workshop on Buddhist Logic, organized by the ICPR School of Buddhist Studies in collaboration with RMIC, Kolkata on 20 June 2016
4. Chaired the 17<sup>th</sup> P.K. Sen Memorial Lecture delivered by professor Probal Dasgupta, and the Owl and the Dawn in June 2016.
5. Chaired a session by R. Ramanujam on Complexity of Proof organized by ISLA II on 22 August 2016
6. Delivered the keynote address entitled "Discovering Indian Knowledge Systems – Indology: Classical and Modern in the first national workshop on Research Methodologies of Indological Studies organized by Asiatic Society, Calcutta on 19 September 2016.
7. Gave Syntalks lecture on Consciousness at Mumbai.
8. Delivered Amiya Kumar Mazumdar Centenary Lecture on 'Dhyana: in Contemporary Science and philosophy on 29 November 2016.
9. Chaired a lecture session by Professor Indrani Sanyal on 'the metaphysics of Pranab Kumar Sen' in a one-day seminar organized by the Department of Philosophy, Jadavpur University on 22 December 2016.
10. Chaired the sessions of Jonardon Ganeri on 'Matilal's dissident Epistemology' and of Arindam Chakrabarti on 'Who Did It?' in the International on Bimal Krishna Matilal organized by the ICPR Centre for Buddhist Studies on 28 December 2016.
11. Delivered Satischandra Mukhopadhyaya Memorial Lecture on 'Satischandres manan o japan' 1 January 2017.
12. Chaired a session in the seminar on Mathematics and Culture of Professor Benedikt Lowe at IEST Shibpur, on 3 January, 2017.
13. Chaired a lecture by Professor R.C. Pradhan, ICPR National Professor on 'Mind and World; Towards a Non-Naturalist Account on 10 January 2017.
14. Delivered Professor Bimal Krishna Matilal Memorial Lecture on Some reflections on the Ethics of Bimal Krishna Matilal, 25 January, 2017, Department of Philosophy, Gour Banga University



15. Delivered a lecture on Indian Theories of Consciousness at Ramakrishna Mission Institute of Culture, Golpark on 1st March 2017
16. Chaired a session on The Philosophy of K.C. Bhattacharya by Dr. Tara Chatterjea in the national seminar on Contemporary Indian Philosophers, organized by CAS in Philosophy, Jadavpur University, 7,8 March, 2017.
17. Chaired a session on “Cultural Confrontations’ by Professor Soumitra Basu in the national seminar on Philosophy and Culture, organized by the Centre of Sri Aurobindo Studies, CAS in Philosophy, Jadavpur University, 21, 22 March, 2017
18. Delivered the keynote address in the state level seminar on Beyond the Binaries, organized by the Department of Philosophy, Jadavpur University on 29 March, 2017.

**4. Seminar/Workshop Conference /Symposium Attended:**

1. Presented a paper in the national workshop on Ethics and Professional Values in Technical Education, organized by the Humanities and Social Science Department. Indian School of Mines, Dhanbad on 5 August 2016.
2. Presented a paper entitled ‘Atmaguna Prasange’ in the one-day seminar organized by the Department of Philosophy, Jadavpur University to commemorate the centenary of Pandit Sri Biswabandhu Bhattacharya on 15 September 2016.
3. Jointly with Simon Coelho, paper entitled ‘E-learning offers greater possibilities for Cognitive processes’, accepted for poster presentation in ACCS 16 organized at IIT Gandhinagar on 3-5 October, 2016.
4. Presented a paper at IEST in a workshop on mathematics and culture entitled ‘Nature behind Culture’ 3 January 2017
5. Attended a national seminar organized by the School of Cognitive Science on ‘Challenges of Depressive Language Use: Tools for Depression Detection , 15-16 March 2017.

**5. Seminar/Workshop Conference/ Symposium Organized:**

Organised an International Conference on Logic, Epics and Ethics: a Homage to Bimal Krishna Matilal at the ICPR Centre for Buddhist Studies, Department of Philosophy, Jadavpur University 27-29 December 2016

**6. Articles Published in Journals:**

1. “Naturalism in Indian Philosophy”, *Blackwell Companion to Naturalism*, ed. Kelly James Clark, Wiley, Blackwell, UK, 2016.
2. ‘Development of Bengali Audio-Visual Test Battery for assessment of pragmatic skills: Preliminary normative data based on educational level’, authored jointly with Madhushree Chakrabarty (first author), in *Journal of Psycholinguistic Research*, June 2016.
3. “Computational Traits in Navya-Nyâya?” in Special Issue on the Philosophy of Bimal Krishna Matilal, *Sophia*, 2016
4. ‘Humility: An Emerging Construct in Moral Psychology’, *Psychological Studies*, February, 2017, co-authored by Oindrila Bhattacharya and Jayanti Basu.

**7. Collaborative Programmes:**

Collaborated with Stephen P. Stich, Rutgers, USA, et al. in the “Intellectual Humility and Cultural Diversity’ Project, funded by John Templeton Foundation and Rutgers University, USA.



Dr. Susrut Ray completed the ICPR sponsored project on Kant and Cognitive Science in April 2016 under my supervision.

**8. Major Achievements:**

**Editor-in-Chief**, *Journal of Indian Council of Philosophical Research*, ICPR and Springer.

**Second Vice President** (2016-19), Division of Logic, Methodology, Philosophy of Science and Technology, International Union of History and Philosophy of Science and Technology.

**Member**, Advisory Committee of SATYAM (Science and Technology in Yoga and Meditation) Project of DST.

**Member**, Advisory Board of John Templeton Planning Grant (USA) of the project "The Geography of Philosophy".

**Prof. Mihir Kumar Chakraborty, Visiting Professor**

**1. Area of Research Activities:**

Modal Logic, Linear Logic, Rough Set Theory and its Logic, Fuzzy Set Theory and its Logic, Nonmonotonic Reasoning and Belief Change, Logic of Diagrams, Knowledge Representation, Applications of Philosophy of Mathematics

**2. Articles Published in Journals:**

- (i) Lopamudra Choudhury & Mihir Kumar Chakraborty, **Singular Propositions, Negation and the Square of Opposition**, *Logica Universalis*, June 2016, 10(2-3): 215-231.
- (ii) Minghui Ma & Mihir Kumar Chakraborty, **Covering-based rough sets and modal logics. Part I**, *International Journal of Approximate Reasoning*, October 2016, Volume 77, Pages 55-65.
- (iii) Soma Dutta & Mihir K. Chakraborty, **The role of metalanguage in graded logical approaches**, *Fuzzy Sets and Systems*, September 2016, 298: 238-250.
- (iv) Mihir K. Chakraborty, **On Some Issues in the Foundation of Rough Sets: the Problem of Definition**, *Fundamenta Informaticae*, December 2016, vol. 148, no. 1-2, pp. 123-132.
- (v) Mihir K. Chakraborty & Purbita Jana, **Fuzzy topology via fuzzy geometric logic with graded consequence**, *International Journal of Approximate Reasoning*, January 2017, Volume 80, Pages 334-347.

**3. Conference Proceedings:**

Jim Burton, Mihir Chakraborty, Lopamudra Choudhury, and Gem Stapleton, **Minimizing Clutter Using Absence in Venn- $i^e$** , *Diagrammatic Representation and Inference*, pp. 107-122, 2016, Springer

**Prof. Lopamudra Choudhury**

**1. Area of Research Activities:**

Diagram Logic, Cognition of the blind, Applied ethics

**2. Major Research Project:**

National Programme for Perception Engineering II, MeitY  
UPE II, UGC

**3. Articles Published in Journals:**

- (i) Lopamudra Choudhury & Mihir Kumar Chakraborty, **Singular Propositions, Negation and the Square of Opposition**, *Logica Universalis*, June 2016, 10(2-3): 215-231.
- (iii) Nairrita Bhattacharya & Lopamudra Choudhury, **Consolidation of Concepts in the Visually Challenged and the Sighted Individuals with Special Reference to Onomatopoeic Words**, *Procedia Computer Science*, 84 ( 2016 ) 186 – 191.

**4. Conference Proceedings**

Jim Burton, Mihir Chakraborty, Lopamudra Choudhury, and Gem Stapleton, **Minimizing Clutter Using Absence in Venn-i<sup>e</sup>**, *Diagrammatic Representation and Inference*, pp. 107-122, 2016, Springer

**5. Collaborative Programmes:**

Collaboration with University of Brighton

**6. Major Achievements:**

Organized 2<sup>nd</sup> winter school in diagram logic, Feb, 2017

**CULTURAL TEXTS & RECORDS**

Phone : + 91-33-2414-6681  
Int. : 2457-2943/2631  
Director. : Prof. Amlan Das Gupta  
Jt. Director : Prof. Abhijit Gupta  
E-mail : dir.ctr@jadavpuruniversity.in

**1. A. Courses Offered :**

Name of the Course	Duration of the Course	No of Students Enrolled/Completed
PG Diploma in Digital Humanities and Cultural Informatics	I year	12
Certificate Course in Editing and Publishing	5 months	50
GIAN Course "Ethnomusicology and The Digital Archive"	1 week	25

**1. B. Number of Faculty Members :**

Director: Amlan Das Gupta, Professor of English (academic details given under relevant department list) **No Permanent Staff**

List of Members of Academic Committee, School of Cultural Texts and Records

1. The Vice-Chancellor, JU - Chairman
2. Professor Amlan Das Gupta Director of School and Vice-Chairman
3. Dr Abhijit Gupta, Department of English, Joint Director of School
4. Dr Samantak Das, Department of Comparative Literature, Member
5. Professor Mahidas Bhattacharya, Department of Linguistics, Member
6. Professor Moinak Biswas, Department of Film Studies, Member
7. Dr Paromita Chakravarti, Department of English, Member
8. Dr Nilanjana Deb, Department of English, Member
9. Dr Abhijit Roy, Department of Film Studies, Member
10. Shri Rajeswar Sinha, Department of Bengali, Member
11. Professor Chandan Majumdar, Department of Computer Science and Engineering, Member
12. Dr Sudip Kumar Naskar, Department of Computer Science and Engineering, Member
13. Dr Sipra Mukherjee, Department of English, West Bengal State University, Barasat (External Member)
14. Professor Ujjayan Bhattacharya, Department of History, Vidyasagar University (External Member)

**2. A. Area of Research Activities : (Broad Areas)**

Documentation and digitization of endangered cultural material  
Electronic editing and software development  
Research and training in the related fields  
Strengthening collaboration among institutions with similar interests

**2. B. Major Research Project : (Departmental/Individual, Name of the Project/Funding Agency)**

Departmental-2013-2018-Documentation of Cultural Texts (subgroup of CR&SS Programme)-  
UGC-UPE II

Departmental-2012-2016-Digitization of South Asian Cultural Resources-Sir Ratan Tata Trust,  
Mumbai

Departmental-2013-2016-Reorganization, digitization and cataloguing of the MaulanaAbulKalam  
Azad collection of paper records-Maulana Abul Kalam Azad Institute of Asian Studies

Departmental-2013-continuing-Digitisation of paper records-Victoria Memorial Hall, Kolkata

Departmental-2014-2016-Famine and Dearth in India and Britain, 1550-1800-Arts and  
Humanities Research Council, UK through Exeter University

Departmental-2016-2018-Two centuries of Indian Print-British Library Endangered Archives  
project

**3. A. Invited Lectures Delivered/Sessions Chaired:**

**3. B. Seminar/Workshop/Conference/Symposium Attended:**

**3. C. Seminar/Workshop/Conference/Symposium Organized:**

**3. D. Orientation Courses/ Refresher Courses Attended:**

**3. E. Orientation Courses/Refresher Courses Organized:**

**4. A. Books/Monographs etc.Published :**

**4. B. Articles Published in Journals:**

**5. Collaborative Programmes:**

**6. Major Achievements:**

[For all details pertaining to items 3-6, please see under Departmental profiles.]

**EDUCATION TECHNOLOGY**

Phone : +91-33-2414-6129  
Int. : 2457-2442  
Director. : Prof. Matangini Chattopadhyay  
Jt.Director : Dr. Ranjan Parekh  
E-mail : dir.edutech@jadavpuruniversity.in

**1. A. Courses Offered:**

<b>Name of the Course</b>	<b>Duration of Course</b>	<b>No. of Students Enrolled</b>
Master in Multimedia Development,(4-semester)	2 Years	10
M. Tech IT (Courseware Engineering),(4-semester)	2 Years	18
Post Graduate Diploma in Multimedia and Web Technology (Distance mode), (4-semester)	1 Year	No Enrollment
M.A. in Environment and Development (Distance mode),	2 Years	Suspended (Decision taken by Dept. of Economics)

**1. B. Number of Faculty Members:**

**Sanctioned Posts : Professor (02+01 (XIth Plan)), Associate Professor (02) Assistant Professor (01), Assistant Professor (On Contract) (04) = Total (10)**

**Existing Number of Teachers : Professor (01), Associate Professor (01), Assistant Professor(0), Assistant Professor (on contract) (02)= Total (04)**

**2. A. Area of Research Activities (Broad Areas)**

- Education Technology
- Teaching-Learning Methodology

- Intelligent Tutorial System
- Courseware Engineering
- Computer aided Language learning
- Learning Management System
- e-Learning
- Digital Distance Education
- Quality Assurance for e-Learning
- Multimedia Content Creation Process
- Multimedia Databases and Content Based Retrieval
- Image Processing and Pattern Recognition
- Mobile Multimedia Communication
- Distributed Object Computing
- Mobile Computing
- m-Learning
- Mobile Application
- Quality Assurance for m-Learning
- Cryptography and Steganography
- Wireless Sensor Network & Wireless Security
- Web Services & Web Technology
- Risk Management and Financial Engineering
- Speech / Character Recognition

**2. B. Major Research Project (Departmental/Individual, Name of the Project, Funding Agency):**

- a) **Departmental / Individual:** Dr. Matangini Chattopadhyay, **Associate Coordinator**, Jadavpur University, India

**Name of the Project:** *Sustainable green Economies through Learning, Innovation, Networking and Knowledge exchange (gLINK)*

**Funding Agency:** Education Audiovisual and Culture Executive Agency under European Commission, 2014 - 2018 (4 years), the total volume of the project is EUR 3,036,625, Number of participating countries: 17

- b) **Departmental / Individual:** Dr. Matangini Chattopadhyay, **Associate Coordinator**, Jadavpur University, India

**Name of the Project:** *South-east-west Mobility for Advanced Research, Learning, Innovation, Networking and Knowledge (smartLINK)*

**Funding Agency:** Education Audiovisual and Culture Executive Agency under European Commission, 2014 - 2018 (4 years), the total volume of the project is EUR 3,049,600, Number of participating countries: 17

- c) **Departmental / Individual:** Dr. Matangini Chattopadhyay as **member**, Professor Supriya Chowdhury as Co-ordinator and Professor Sugata Hazra as Joint Co-ordinator

**Name of the Project:** *Enhancing Quality, Access of Undergraduate Education in India (EQUAL).*

**Funding Agency:** European Commission, June 2014 – June 2017, the total volume of the project is EUR 01 million, Number of participating institutes (04 from India and 02 from abroad): 06

- d) **Departmental / Individual:** Dr. Matangini Chattopadhyay as **Principal Investigator**, Professor Samar Bhattacharya and Dr. Ranjan Parekh as Co-Principal Investigators.

**Name of the Project:** *Design and Development of Web Based Teaching Material (Engineering) for Undergraduate and Postgraduate Laboratory.*

**Funding Agency:** University Grant Commission University with Potential for Excellence - Phase II, September 2012 – February 2018, the total volume of the project is Rs. 120.00 Lakh.

- e) **Departmental / Individual:** Matangini Chattopadhyay as **Principal Investigator**

**Name of the Project:** *Design and Implementation of Secured Communication in Wireless Networks.*

**Funding Agency:** University with Potential for Excellence - Phase II, April 2015 – March 2017, the total volume of the project is 8.70 Lakh.

**3. A. Invited Lectures Delivered/Sessions Chaired: (Name of the Teacher, Type of Participants, Name of the Seminar/Conference etc., Place, Duration)**

- Dr. Ranjan Parekh acted as **Guest Faculty** for the course “M.Sc. in Science Communications” at National Council of Science Museums (NCSM) in collaboration with BITS, Pilani, during January 2017.
- Dr. Matangini Chattopadhyay delivered lecture in 1-Day Awareness Program on “Teaching Resources and Interactive Laboratory Simulations (TRAILS)” under the activity “Digital Library & Web Based Materials” of UGC UPE Phase II organized by Centre for Digital Library & Documentation and School of Education Technology, Jadavpur University on August 17, 2016.
- Dr. Matangini Chattopadhyay, Principal Investigator and team members of the project entitled “**Design and Development of Web Based Teaching Materials (Engineering) for Undergraduate and Post Graduate Laboratory**” under UGC UPE Phase II Scheme of the School of Education Technology delivered lectures on Multimedia Tools and Techniques in the **Workshop on “Multimedia and Distributed Software Technology in Big Data**” organized by the Department of Information Technology, Jadavpur University sponsored by TEQIP -II. Moreover, team members also demonstrated relevant software as well as our product “TRAILS” in this workshop.

**3. B. Seminar/Workshop /Conference/Symposium Attended: (Name of the teacher, Name of the Paper presented, if any, Name of the Seminar, Place, Duration) :**

- Ms. Saswati Mukherjee participated and presented a paper on “EAER-AODV - Enhanced Trust Model Based on Average Encounter Rate for Secure Routing in MANET”, 4th International Doctoral Symposium on Applied Computation and Security Systems (ACSS), Patna, March 17-19, 2017.

**3. C. Seminar/Workshop conference/Symposium Organized: (Name of the teacher, Name of the Paper presented, if any, Name of the Seminar, Place, Duration):**

1-Day Awareness Program on “**Teaching Resources and Interactive Laboratory Simulations (TRAILS)**” developed by the School of Education Technology (SET), Jadavpur



University under the activity “Digital Library & Web Based Materials” of UGC UPE Phase II, organized by the Centre for Digital Library and Documentation and the School of Education Technology on August 17, 2016 in Dr. H. L. Roy Auditorium, Jadavpur University.

Prof. Rajib Bandyopadhyay, Co-ordinator, Prof. Udayan Bhattacharya, joint coordinator Dr. Matangini Chattopadhyay, joint coordinator of Digital Library & Web Based Materials, TRAILS team and staffs of SET organized this program.

**3. D. Orientation Courses/Refresher Courses Attended: (Name of the teachers, Title of the Course, Duration, Place):**

- Dr. Ranjan Parekh attended Short term training courses at National Institute of Technical Teachers’ Training and Research (NITTTR), Kolkata during May 2016

**4. B. Articles Published in Journals/Conferences: (Name of the Teacher, Name of the Articles, Name of the Journal, Date of Publication, Volume):**

- Hindol Bhattacharya, Matangini Chattopadhyay, Samiran Chattopadhyay, Mathematical Analysis of WSNs using Game Theory, Soft Computing Applications in Sensor Networks, Edited by Misra Sudip Pal Sankar K, Taylor & Francis Group, Print ISBN: 978-1-4822-9875-8, Pages 123 – 152, September 2016.
- Arnab Mitra, Anirban Kundu, Matangini Chattopadhyay, Samiran Chattopadhyay, A Cost-efficient One Time Password-based Authentication in Cloud Environment using Equal Length Cellular Automata, in Press, Journal of Industrial Information Integration, Elsevier.
- Chandra Das, Shilpi Bose, Matangini Chattopadhyay and Samiran Chattopadhyay, A Novel Distance based Iterative Sequential KNN Algorithm for Estimation of Missing Values in Microarray Gene Expression Data, International Journal of Bioinformatics Research and Applications, Inderscience Publishers, Volume 12, No. 4, 312 – 342, 2016
- Sandip Chakraborty, Dipti Dash, Debarshi Kumar Sanyal, Samiran Chattopadhyay, Matangini Chattopadhyay, Game-Theoretic Wireless CSMA MAC Protocols: Measurements from an Indoor Testbed, in proc. of the 35th Annual IEEE International Conference on Computer Communications (IEEE INFOCOM 2016) - Poster Paper, San Fransisco, CA, USA, April 10-15.
- J. Chaki, R. Parekh, S. Bhattacharya, “An efficient fragmented plant leaf classification using Color Edge Directivity Descriptor”, in Proc. of Int. Conf. on Computational Intelligence, Communications, and Business Analytics (CICBA ’17), March 24-25, 2017, Kolkata, India.
- S. Jana, R. Parekh, “Shape-based Fruit Recognition and Classification”, in Proc. of Int. Conf. on Computational Intelligence, Communications, and Business Analytics (CICBA ’17), March 24-25, 2017, Kolkata, India.
- S. Basak, S. Jana, R. Parekh, “Automatic Fruit Recognition from Natural Images using Color and Texture Features”, in Proc. of Int. Conf. on Devices for Integrated Circuit (DevIC ’17), March 23-24, 2017, Kalyani, India.
- A. Lodh, R. Parekh, “Flower Recognition System based on Color and GIST Features”, in Proc. of Int. Conf. on Devices for Integrated Circuit (DevIC ’17), March 23-24, 2017, Kalyani, India.
- S. Mukherjee, M. Chattopadhyay, S. Chattopadhyay, and P. Kar, “EAER-AODV - Enhanced Trust Model Based on Average Encounter Rate for Secure Routing in MANET”, 4th International Doctoral Symposium on Applied Computation and Security Systems (ACSS), Patna, March 17-19, 2017.

- S. Basak, R. Parekh, "An Improved Bag-of-Features Approach for Object Recognition from Natural Images", Int. J. of Computer Applications (IJCA), vol. 151, no. 10, pp. 5-11, October 2016 [ISSN: 0975-8887]
- J. Chaki, R. Parekh, S. Bhattacharya, "Recognition of plant leaves with major fragmentations", in Proc. of Int. Conf. on Computational Science and Engineering (ICCSE '16), Kolkata, India, pp. 111-116, Oct. 04-06, 2016. [ISBN : 978-1-138-02983-5]
- K. Hossain, R. Parekh, "An Approach Towards Image, Audio and Video Steganography", in Proc. of 2nd IEEE Int. Conf. on Research in Computational Intelligence and Communication Networks (ICRCICN '16), Kolkata, India, pp. , Sep. 23-25, 2016. [ISBN : 978-1-5090-1047-9]
- A. Lodh, R. Parekh, "Computer Aided Identification of Flags using Color Features", Int. J. of Computer Applications (IJCA), vol. 149, no. 11, pp. 1-7, September 2016 [ISSN: 0975-8887]
- Sahitya Mondal, Joydeep Mukherjee, "A Fuzzy Analytical Hierarchy Process in Innovative Education - An Approach", International Journal of Computer Applications (ISSN:-0975 – 8887) Volume 150 – No.9, September 2016.
- S. Jana, R. Parekh, "Intra-class Recognition of Fruits using Color and Texture Features with Neural Classifiers", Int. J. of Computer Applications (IJCA), vol. 148, no. 11, pp. 1-6, August 2016 [ISSN: 0975-8887]

## **5. Collaborative Programmes:**

### **National:**

- Strategy Academy Centre for Advanced Studies (TSACAS), Kolkata School of Education Technology, Jadavpur University (SET, JU) and the Strategy Academy Centre for Advanced Studies (TSACAS) jointly started a program titled "Post Graduate Diploma in Management and Entrepreneurship" through Live and two-way interactive Digital Network and it is going on successfully.

### **International:**

- Royal Society International Exchanges/Grant Ref: IE160609 Dr Hubert P. H. Shum, University of Northumbria, Newcastle upon Tyne, UK and Dr Matangini Chattopadhyay, Jadavpur University, India jointly submitted a project entitled "An Affective Smart Environment for Personalized Learning and Teaching" to the Royal Society International Exchanges. The Royal Society ("Funding Body") has accepted our project proposal and has awarded us £11841 for 02 years starting from 31 March, 2017 till 30 March, 2019 to carry out collaborative research including international travel from both directions.

## **7. Additional Remarks:**

- Dr. Matangini Chattopadhyay promoted to Professor under CAS.
- One PhD student submitted her thesis guided jointly by Prof. Samiran Chattopadhyay and Dr. Matangini Chattopadhyay.
- Dr. Matangini Chattopadhyay guided Masters Degree theses of 02 students, completed in June 2016.
- Dr. Ranjan Parekh promoted to Associate Professor under CAS.
- Dr. Ranjan Parekh guided PhD degree thesis of SRF funded by TEQIP-II scheme, submitted in April 2017.
- Dr. Ranjan Parekh guided Masters Degree theses of 5 students, completed in June 2016.

## **Annual Report 2016-17**

- Mr. Joydeep Mukherjee guided Masters Degree thesis of 6 students, completed in June 2016.
- Ms Saswati Mukherjee has submitted her PhD thesis under the guidance of Prof. Samiran Chattopadhyay and Dr. Matangini Chattopadhyay.
- Ms Saswati Mukherjee guided Masters Degree theses of 5 students, completed in June 2016.
- The Smart Classroom of SET is being utilized extensively for Recording/Editing of the course materials of e-Pathshala in the Department of Sociology under Professor Ruby Sain, funded by UGC.
- The Smart Classroom of SET is being utilized for Recording/Editing of some of the course materials of E-QUAL project, funded by European Union.
- The Smart Classroom of SET is being utilized for Recording/Editing for the project entitled “Design and Development of Web Based Teaching Materials (Engineering) for Undergraduate and Post Graduate Laboratory” under UGC UPE Phase II Scheme.

### **ENERGY STUDIES**

Int. : 2457-2907

Director.: Dr. Tushar Jash

E-mail : dir.energy@jadavpuruniversity.in

**1. A. Course Offered :** M.Tech. in Energy Science & Technology

**1. B. No of Faculty Members:** Four (4)

**2. A. Area of Research Activities:**

Solar PV  
Solar Thermal  
Bio Energy  
Wind Energy  
Energy Conservation Management  
Building Energy Management

**2. B. Major Research Projects:** PURSE Phase II

**Dr. Subhasis Neogi, Professor**

**List of Publications (2016-2017)**

1. Amrita Ghosh, Subhasis Neogi, "Impact of dust and other environmental factors on glass transmittance in warm and humid climatic zone." Clean Technologies and Environmental Policy, October 2016.
2. Gaurab Bhowmik, Subhasis Neogi, "Study on the effect of tilt on variation of aperture area shading in a linear Fresnel reflector field for two different configurations." 1<sup>st</sup> Springer International

Conference on Emerging Trends and Advances in Electrical Engineering and Renewable Energy (ETAEEERE), December 2016.

3. Gaurab Bhowmik, Subhasis Neogi, "Study on the End Effect Loss of a linear Fresnel Collector System." IEEE International Conference on 21<sup>st</sup> Century Energy Needs – Materials, Systems and Applications (ICTFCEN), Indian Institute of Technology, Kharagpur, November 2016.
4. Gaurab Bhowmik, Subhasis Neogi, "Study on the Reduction of Concentrated Solar Flux in a Linear Fresnel Reflector Due to End0Effects." Proceedings of the National Conference on Advances in Thermal Engineering (NCATE), Jadavpur University, pp. 41-43, September 2016.
5. Gaurab Bhowmik, Subhasis Neogi, "Ray Tracing Study of Linear Fresnel Reflector System." Global Journal on Advancement in Engineering and Science.", 2(1), pp. 58-61 March 2016.

**Dr. Tushar Jash, Associate Professor**

**List of Publications (2016-2017)**

1. Majhi BK, Jash Tushar (2016) Two-phase anaerobic digestion of vegetable market waste fraction of municipal solid waste and development of improved technology for phase separation in two-phase reactor. *Waste Management* 58: 152-159.
2. Majhi BK, Jash Tushar (2016) Estimation of landfill gas generation from Dhapa landfill in Kolkata. *Indian Journal of Environmental Protection* 36(5): 353-363.
3. Paul S, Jash Tushar (2017) Biodiesel production from Indian sesame oil and the performance of a diesel engine fueled with sesame biodiesel blends. *Indian Journal of Environmental Protection* 37(2): 155-162.
4. Das D, Majhi BK, Jash Tushar (2016) Estimation of landfill gas generation from municipal solid waste in Indian cities. *Energy Procedia* 90: 50-56.
5. Majumdar D, Majumder A, Jash Tushar (2016) Performance of low speed electric two-wheelers in the urban traffic conditions: a case study in Kolkata. *Energy Procedia* 90: 238-244.

**Sri Ratan Mondal, Associate Professor**

**1. A. Invited Lectures Delivered/Sessions Chaired:**

- (i) Delivered an invited lecture on "**Solar PV Balance of System (BOS)**" in the two weeks International Training Program on "Clean Energy Engineering & Enterprising" held on 2<sup>nd</sup> May to 14<sup>th</sup> May, 2016 at School of Energy Studies, Jadavpur University, Kolkata.
- (ii) Delivered an invited lecture on "**Solar Photovoltaic Power Systems – Challenges & Opportunities**" in two days National Seminar on "Recent Advances in Semiconductor and Solar Technology" held during 6<sup>th</sup> May to 7<sup>th</sup> May, 2016 at Mallabhum Institute of Technology, Bishnupur, Bankura, West Bengal.
- (iii) Delivered an invited lecture on "**Application of Solar Energy**" in the TEQIP sponsored one day National Seminar on "Application of Solar and Wind Energy" held on 20<sup>th</sup> May, 2016 at JIS College of Engineering, Kalyani, Nadia, West Bengal.
- (iv) Delivered an invited lecture on "**Smart Grid-A future energy configuration**" in the One day Seminar held on 18<sup>th</sup> March, 2017 at Bengal College of Engineering & Technology, Durgapur, West Bengal.

**1. B. Seminar/Workshop/Conference/Symposium Attended:**

- (i) Rajarshi Chakraborty and Ratan Mandal, "A New Approach of Solar Thermal Steam Generator Design", Proceedings of the National Conference on Advances in Thermal Engineering, september 23-24, 2016, Jadavpur University, Kolkata, India.
- (ii) Avijit Paul and Ratan Mandal, "Some Studies on the Contact Properties of Cd<sub>1</sub>-XZnxTe Thin Film for Application in Optoelectronic Devices", International Conference on "21st Century Energy Needs – Materials, Systems and Applications 2016, Nov. 17-19, 2016, IIT Kharagpur, India.
- (iii) Sujoy Ranjan Nath and Ratan Mandal, "Some Studies on Performance Analysis of Two Different Laboratory Scale Solar Photovoltaic Water Pumping in Irrigation Systems", International Conference on "21st Century Energy Needs – Materials, Systems and Applications 2016, Nov. 17-19, 2016, IIT Kharagpur, India.
- (iv) Poulami Dutta, Ratan Mandal and Biswajit Ghosh, "STUDIES ON FABRICATION OF COPPER BASED SEMICONDUCTING THIN FILM MATERIAL", 3rd International Conference on Bioenergy Environment and Sustainable Technologies (BEST2017), January 23-25, 2017, Arunai Engineering College, Tiruvannamalai, Tamilnadu, India.
- (v) Kunal Chowddury, Sirsha Majumder and Ratan Mandal, "Impact of Solar Park in Establishing Energy & Food Security", 3rd International Conference on Bioenergy Environment and Sustainable Technologies (BEST2017), January 23-25, 2017, Arunai Engineering College, Tiruvannamalai, Tamilnadu, India.
- (vi) Avijit Paul and Ratan Mandal, "Scope and Possibilities of Copper (Cu) Based Semiconducting Materials in Optoelectronic Applications - A Review", Fourth International Symposium on Semiconductor Materials and Devices (ISSMD – 4), March 08 – 10, 2017, Jadavpur University, India.
- (vii) Madhumita Das and Ratan Mandal, "A comparative performance analysis of direct, with battery, supercapacitor, and battery-supercapacitor enabled photovoltaic water pumping systems using centrifugal pump", Fourth International Symposium on Semiconductor Materials and Devices (ISSMD – 4), March 08 – 10, 2017, Jadavpur University, India.

**1. D. Orientation Courses/Refresher Courses Attended:**

- (i) One week Training on "Laboratory Safety Management" at National Institute of Technical Teachers' Training and Research, Kolkata held on 20th June to 24th June, 2016.
- (ii) UGC-MHRD Subject-based Refresher Course (SRC) on "Built Environment & Sustainable Technologies" held on 2<sup>nd</sup> to 21<sup>st</sup> January 2017 at Department of Architecture, Jadavpur University.

**1. E. Orientation Courses/Refresher Courses Organized:**

- (i) One of the organizing and working committee member in the two weeks International Training Program on "Clean Energy Engineering & Enterprising" held on 2<sup>nd</sup> May to 14<sup>th</sup> May, 2016 at School of Energy Studies, Jadavpur University, Kolkata.

**2. Articles Published in Journals (2016-2017)**

- (i) Biswajit Ghosh and Ratan Mandal, "Evaluation of electrical contact in thin semiconducting films from AC measurements", Journal of the Electron Devices Society, IEEE, Volume 4, May, 2016, pages 179 – 184.



(ii) Ratan Mandal and Srinjoy Panja, "Design and Feasibility Studies of a Small Scale Grid Connected Solar PV Power Plant", Energy Procedia, Volume 90, December 2016, pages 191 – 199, Elsevier Publication.

(iii) Rakesh Naskar, Saswata Ghosh and Ratan Mandal, "Analysis on Carbon Credit of a 5KWP Solar Photovoltaic Power Plant at JIS College of Engineering, Kalyani.", Imperial Journal of Interdisciplinary Research (IJIR) Vol-2, Issue-10, 2016 ISSN:2454-1362, <http://www.onlinejournal.in>

**Dr. Biswajit Ghosh, Professor**

**List of Publications (2016-2017)**

1. 'Land utilization Performance of Ground mounted Photovoltaic Power Plants: A Case Study', *Renewable Energy* (2017), DOI: 10.1016/j.renene.2017.07.116
2. 'Rapid prototyping of a low-cost graphene-based impedimetric biosensor', *Procedia Technology*, **27**, pp. 274 – 276, 2017.
3. 'Electroless Nickel Deposition: An Alternative for Graphene Contacting' *ACS Appl. Mater. Interfaces*, **8(45)**, pp 31359–31367, 2016, DOI: 10.1021/acsami.6b08290
4. 'Evaluation of Electrical Contact in Thin Semiconducting Films from AC Measurements', *IEEE Jnl. of Electron Device Society*, **4(4)**, pp. 179-184, 2016.
5. 'Studies on the impact of Energy Quality on Human Development Index', *Renewable Energy*, **92**, pp. 117-126, 2016.

**ENVIRONMENTAL STUDIES**

Phone : + 91-33-2414-6147

Int. : 2457-2543/2874

Director.: Dr. Tarit Roychowdhury

E-mail : [dir.environmental@jadavpuruniversity.in](mailto:dir.environmental@jadavpuruniversity.in)

**1. A. Courses Offered :** (Name of the Course, Duration of the Course, No of Students Enrolled)

M.Tech in Environmental Biotechnology, Two years, 9.

**1. B. Number of Faculty Members :3**

**2. A. Area of Research Activities :** (Broad Areas)

Environmental Biotechnology, Environmental Chemistry, Environmental Microbiology, Toxic contaminants in environment and their remedies

**2. B. Major Research Project :** (*Departmental/Individual, Name of the Project/Funding Agency*)

**Dr. Tarit Roychowdhury**

*Title:* Spatial distribution of uranium and associated water quality parameters in drinking and groundwater/drinking water of five districts (Nadia, Bardhaman, North Twenty four Parganas, Kolkata, Howrah) of West Bengal (Principal Investigator)



**Annual Report 2016-17**

*Sponsored by:* Board of Research in Nuclear Science (Department of Atomic Energy), Govt. of India

*Amount:* Rs. 26,94,300/; *Duration:* 2016-2018

*Title:* Spatial distribution of uranium and associated water quality parameters in groundwater / drinking water of three districts (Purulia, Bankura and Hooghly) of West Bengal (Co-Principal Investigator)

*Sponsored by:* Board of Research in Nuclear Science (Department of Atomic Energy), Govt. of India

*Amount:* Rs. 26,94,300/; *Duration:* 2016-2018

*Title:* Hydro-geological investigations for assessing sub-surface / groundwater potential in selected blocks of Bankura district (Principal Investigator)

*Sponsored by:* Water and Sanitation Support Organization (WSSO), Public Health Engineering Department (PHED), Govt. of West Bengal

*Amount:* Rs. 110,22,750/; *Duration:* 2017

*Title:* Hydro-geological investigations for assessing sub-surface water potential in Patrasayer and Kotulpur blocks of Bankura district, West Bengal (Principal Investigator)

*Sponsored by:* Water and Sanitation Support Organization (WSSO), Public Health Engineering Department (PHED), Govt. of West Bengal

*Amount:* Rs. 32,13,100/; *Duration:* 2017

**Dr. Joydeep Mukherjee**

*Title:* Mining the genome and metagenome of marine microbiome for pks-nrps biosynthetic gene clusters and bioactive small molecules (In collaboration with Pondicherry University and InStem, Bengaluru)

*Sponsored by:* Department of Biotechnology, Government of India

*Amount:* Rs. 180,70,382.00 (Total)

*Duration:* 2016-2019

*Title:* Spatial distribution of uranium and associated water quality parameters in drinking and groundwater/drinking water of five districts (Nadia, Bardhaman, North Twenty four Parganas, Kolkata, Howrah) of West Bengal (Co-Principal Investigator)

*Sponsored by:* Board of Research in Nuclear Science (Department of Atomic Energy), Govt. of India

*Amount:* Rs. 26,94,300/; *Duration:* 2016-2018

**Dr. Subarna Bhattacharya**

*Title:* Potentiality assessment of Sericulture as a climate resilient rural livelihood in cyclone affected areas of Indian Sundarban (Principal Investigator)

*Sponsored by:* Indian Council of Social Science Research

*Amount:* Rs. 200,000/

*Duration:* 2017-2018

**3. A. Invited Lectures Delivered/Sessions Chaired:(Name of the Teacher, Type of Participants, Name of the Seminar / Conference etc. Place, Duration)**

**Dr. Subarna Bhattacharya**

Celebration of Earth day, 2016 organized by Birla Industrial and Technological Museum

**3. B. Seminar/Workshop/Conference/Symposium Attended: (Name of the Teacher, Name of the Paper Presented, Name of the Seminar, Place, Duration)**

**Dr. Tarit Roychowdhury**

Additional danger of arsenic through dietary intake pathways from arsenic-affected areas of West Bengal. M. Joardar, N. Roy Chowdhury, M. Paul, **T. Roychowdhury**. 1<sup>st</sup> Regional Science and Technology Congress, 2016. Presidency Division, West Bengal, Dept. of Science & Technology, Govt. of West Bengal and National Institute of Technical Teachers' Training & Research (NITTTR), Kolkata, 13<sup>th</sup>& 14<sup>th</sup> November, 2016.

Study of LD slag as a potential adsorbent material for arsenic and fluoride. S. Banerjee, M. Paul, M. Joardar, S. Bhattacharya, **T. Roychowdhury**. 1<sup>st</sup> Regional Science and Technology Congress, 2016. Presidency Division, West Bengal, Dept. of Science & Technology, Govt. of West Bengal and National Institute of Technical Teachers' Training & Research (NITTTR), Kolkata, 13<sup>th</sup>& 14<sup>th</sup> November, 2016.

Chronic exposure to arsenic toxicity, its impact on socio agronomic aspect with special reference to rice grains in areas of West Bengal, India. N. Roy Chowdhury, **T. Roychowdhury**. 1<sup>st</sup> Regional Science and Technology Congress, 2016. Presidency Division, West Bengal, Dept. of Science & Technology, Govt. of West Bengal and National Institute of Technical Teachers' Training & Research (NITTTR), Kolkata, 13<sup>th</sup>& 14<sup>th</sup> November, 2016.

Impact of arsenic-contaminated irrigation water on food chain in GMB plain and possible mitigation options. **T. Roychowdhury**, S. Bhattacharya, N. Roychowdhury, S. Bhowmick, P. Dhali, K. Goswamy. Arsenic Research and Global Sustainability. Proceedings of the Sixth International Congress on Arsenic in the Environment (As2016), June 19-23, 2016, Stockholm, Sweden. Edited by Prosun Bhattacharya, Marie Vahter, Jerker Jarsjö, JurateKumpiene, Arslan Ahmad, Charlotte Sparrenbom, Gunnar Jacks, Marinus Eric Donselaar, JochenBundschuh, and Ravi Naidu. CRC Press 2016, Pages 583–585, Print ISBN: 978-1-138-02941-5, eBook ISBN: 978-1-315-62943-8, DOI: 10.1201/b20466-271.

**Dr. Subarna Bhattacharya**

Third School on Trace Analysis (STA 2017), organized by Mizoram University and Saha Institute of Nuclear Physics

**3. C. Seminar/Workshop/Conference/Symposium Organized:(Name of the Teacher, Name of the Paper Presented, if any, Name of the Seminar, Place, Duration)**

Students' Seminar entitled 'Emerging Trends in Environmental Science & Technology', dated 17<sup>th</sup> March, 2017, School of Environmental Studies, Jadavpur University.

**3. E. Orientation Courses/Refresher Courses Organized: (Name of the Teachers, Title of the Course, if any, Duration ,Place)**

**Coordinator: Dr. TaritRoychowdhury; Co-Coordinator: Dr. Subarna Bhattacharya**

UGC Sponsored Refresher Course entitled 'Current Environmental Issues: Impact, Measurement and Mitigation', School of Environmental Studies, Jadavpur University, 2<sup>nd</sup> – 21<sup>st</sup> January, 2017, Venue: School of Energy Studies, Jadavpur University

**4. A. Books/Monographs etc. Published :(Name of the Teacher, Name of the Book, Name of the Publisher)**

**Dr. Joydeep Mukherjee**

Guest Editor, Special issue "Environmental Biotechnology" in Chemical Engineering and Technology, 39 (9), 2016, Wiley-VCH Verlag (Germany)

**4. B. Articles Published in Journals: (Including National/International & Peer-reviewed Journals) (Name of the Teacher, Name of the Articles, Name of the Journal, Date of Publication, Volume)**

**Dr. Tarit Roychowdhury**

Isolation of indigenous *Staphylococcus sciuri* from chromium-contaminated paddy field and its application for reduction of Cr (VI) in rice plants cultivated in pots. A. Dutta, S. Ghosh, J. Choudhury, R. Mahansaria, M. Dey, A. Ghosh, **T. Roychowdhury**, J. Mukherjee. **Bioremediation Journal** 2017, 21 (1), 30-37.

Increased micro RNA 21 expression contributes to arsenic induced skin lesions, skin cancers and respiratory distress in chronically exposed individuals. N. Banerjee, A. K. Bandyopadhyay, S. Dutta, J. K. Das, **T. Roychowdhury**, A. Bandyopadhyay, A. K. Giri. **Toxicology** 2017, 378, 10-16.

A short communication on groundwater scenario in India: Past, Present and Future. S. Mitra, A. Biswas, S. Bhowmick, N. Roy Chowdhury, **T. Roychowdhury**. **Indian Groundwater** 2017, 8, 7-19.

Membrane bioreactors for the treatment of oily wastewater: pros and cons. S. Mitra, R. Campo, A. Biswas, S. Bhowmick, N. Roy Chowdhury, **T. Roychowdhury**. **Water** (in press).

**Dr. Joydeep Mukherjee**

*Streptomyces euryhalinussp.* nov., a new actinomycete isolated from a mangrove forest. Kaushik Biswas, Jayanta Debabrata Choudhury, Riddhi Mahansaria, Malay Saha, **Joydeep Mukherjee**. **Journal of Antibiotics** (Nature Publishing Group), 2017 (Accepted).

Isolation of indigenous *Staphylococcus sciuri* from chromium-contaminated paddy field and its application for reduction of Cr(VI) in rice plants cultivated in pots. Avishek Dutta, Sayanti Ghosh, Jayanta D Choudhury, Riddhi Mahansaria, Malancha Roy, Ashish Kumar Ghosh, Tarit Roychowdhury, **Joydeep Mukherjee**. **Bioremediation Journal** 2017, 21 (1), 30-37.

**Dr. Subarna Bhattacharya**

Biodeterioration Risk Index of Exhibit Present in Museum Galleries of Tropical Climate. **Bhattacharyya S**, Chaudhuri P, Mukherjee D. **Museum Management and Curatorship** 2016, 31(3), 268-282.

Fumigation of eucalyptus oil for controlling strong room fungi at jorasanko museum (Tagore's residence), India: a study for sustainable conservation. Mukherjee, D., **Bhattacharyya, S.**, Chaudhuri, P. **International Journal of Conservation Science** 2016, 7(2), 431-442.

**5. Collaborative Programmes:**

**Dr. Tarit Roychowdhury**

Climate Change Group, Earth Observatory of Singapore, Nanyang Technological University, N2-01C-36d, 50 Nanyang Avenue, Singapore 639798

Global Centre for Environmental Remediation (GCER), Faculty of Science and Information Technology, The University of Newcastle, Callaghan Campus, University Drive, ATC Building, ATC-139 Callaghan, NSW 2308, Australia

Prof. A. K. Giri, Emeritus Scientist, Molecular Genetics Division, Indian Institute of Chemical Biology, Jadavpur, Council of Scientific & Industrial Research, Govt. of India.

Dr. Sunil Kumar, Principal Scientist, National Environmental Engineering Research Institute, Nehru Marg, Nagpur, Council of Scientific & Industrial Research, Govt. of India

**Dr. Joydeep Mukherjee**

Dorina Strieth, Ph.D. student from Technical University of Kaiserslautern, Germany visited laboratory of Dr. Joydeep Mukherjee to work on the niche-mimic rotating disc bioreactor from 07/11/16 to 21/12/16.

SayaniMitra, Ph.D. student of Dr. Joydeep Mukherjee visited Technical University of Kaiserslautern, Germany to learn advanced techniques applied to biofilm research from April 2016 to August 2016.

**6. Major Achievements:**

**Dr. Tarit Roychowdhury**

**International Research Collaborator** in the project entitled 'Anthropogenic lead in the atmosphere – Isotopes for source apportionment', NanYang Technological University, Singapore.

**ILLUMINATION SCIENCE, ENGINEERING & DESIGN**

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Int. : 2457- 2541  
Director. : Sri Parthasarathi Satvaya  
E-mail : dir.illumination@jadavpuruniversity.in

**1. A. Course Offered:**

M.Tech. in Illumination Technology and Design, Three (03) years degree course (evening), No. of students enrolled each year is eighteen (18)

**1. B. Number of Faculty Members : Two (02)**

**2. A. Area of Research Activities**

- (i) Various aspects on Museum lighting
- (ii) Failure mode analysis of Light Emitting Diode (LED)

- (iii) Design and Development of Adaptive Light Emitting Diode (LED) driver , and  
(iv) Daylight and photo voltaic potential for urban areas

**2. B. Major Research Project(Departmental/Individual, Name of the Project/Funding Agency)**

Dept – School of Illumination Sc. ,Engg. and Design

Name of the Project: Design and Development of Adaptive Light Emitting Diode (LED) driver

Funding Agency: DST , PURSE-II

**3. A. Invited Lectures Delivered/Sessions Chaired:(Name of the Teacher-Type of Participants-Name of Seminar /Conference, etc.-Place -Duration)**

Kamalika Ghosh-Resource person-UGC sponsor Refresher course –”Build Environment and Sustainable Technology”-Jadavpur University , Kolkata-3 weeks Lecture timing : one and half hour

Parthasarathi Satvaya-Resource person-Skill Development Training on Electricity and Safety Practices-NIELIT, Jadavpur University , Kolkata-Two days

Parthasarathi Satvaya -Resource person-Skill Development Training on Installation & Maintenance of Electrical and Electronic System-NIELIT, Jadavpur University ,Kolkata-Two days

**3. B. Seminar/Workshop/Conference/Symposium Attended:(Name of the Teacher-Name of the Paper-Name of the Seminar/Conference-Place-Duration)**

KamalikaGhosh-Design Topology based comparative study on Electric and Photometric Parameters of Commercially available LED lamp systems-2017, 2<sup>nd</sup> International Conference for Convergence in Technology (I2CT)-Pune-3 days7-9<sup>th</sup> April,2017

KamalikaGhosh-Optimized BP Neural Network based SOC estimation of Lead Acid Battery-International Conference on Advancement of Computer Communication & Electrical Technology (ACCET – 2016)-West Bengal-21-22 Oct 2016

KamalikaGhosh-An overview of Light decay due to environmental effects for Light Emitting Diode (LED)- National Conference on Computing Electronics-Kolkata-2 days24-25<sup>th</sup> June 2016

KamalikaGhosh-Solar PV Potential through Urban Built Form Geometry modifications-Comparison between different Methodology-National Conference on Computing Electronics-Kolkata-2 days24-25<sup>th</sup> June 2016

Parthasarathi Satvaya -Initiative in Outcome Based Education and NBA Accrediation-Kolkata-06-08 March, 2017

Parthasarathi Satvaya -A TEQIP-II funded one day Industry -Institute Interactive Seminar on “Street Lighting in India : Recent Developments and Challenges.”-Jadavpur University-7th September 2016

Parthasarathi Satvaya -A TEQIP-II funded seminar on “Recent Developments and Challenges in Flood Lighting Design.”-Jadavpur University-April 2016

**3. C Seminar/Workshop/Conference/Symposium Organized:**

1. Parthasarathi Satvaya -A TEQIP-II funded one day Workshop on “Awareness in Fire Safety and Recent Technologies.” -Dr.Triguna Sen Auditorium , Jadavpur University-21<sup>st</sup> October 2016
2. Parthasarathi Satvaya-Seminar on “New Technological innovations and Its Applications in Smart Street Lighting”-Seminar Hall, E.E. Dept.,Jadavpur University-1<sup>st</sup> March, 2017

**3. D. Orientation Courses/ Refresher Courses Attended:(Name of the Teacher-Title of the Course-Duration -Place)**

Kamalika Ghosh-Orientation Programme-4 weeks-Jadavpur University , Kolkata

Kamalika Ghosh-VLSI Design and Nano Technology : Issues and challenges-3 weeks  
Jadavpur University , Kolkata

**4. B. Articles Published in Journals: (Name of the Teacher-Name of Article -Name of Journal-Date of Publication-Volume)**

Kamalika Ghosh-An approach to Tunnel Lighting Design-Journal of Association of Engineers ,India (ISSN0368-1106)-July-Dec.2016-Volume 86, No.3 & 4

Kamalika Ghosh-An overview of Light decay due to environmental effects for Light Emitting Diode-International Journal of Computer Sciences and Engineering (E-ISSN:2347-2693)-Aug.2016 Volume -4, special issue-6

Kamalika Ghosh-Analyzing various approaches for Measurement of Solar PV Potential through Urban Built Form Geometry modifications-International Journal of Computer Sciences and Engineering (E-ISSN:2347-2693)-Aug.2016-Volume -4, special issue-6

**5. Collaborative Programmes:**

1. A training course was conducted by Parthasarathi Satvaya of SISED with Centre for Electronics Test Engineering, Electronics Regional Test Laboratory (East) Under Ministry of Electronics & IT, STQC Directorate, Govt. of India, on "Photometric Measurements" for participants of, Electronics Regional Test Laboratory (East) on 19<sup>th</sup> January, 2017.
2. 'Measurement of Illumination in Rabindra Sarovar before and during football match' was done with Parthasarathi Satvaya, of SISED & Prof. (Dr.) Saswati Mazumdar of Electrical Engineering Dept. for undertaking a rapid Environmental Impact Assessment (EIA) study in Rabindra Sarovar Lake premises in collaboration with West Bengal Biodiversity Board, Deptt. of Environment, Govt. of West Bengal, on recommendation of National Green Tribunal Eastern Zone.

**INTERNATIONAL RELATIONS & STRATEGIC STUDIES**

Int. : 2475 2068/2229  
Director. : Professor Anindya Jyoti Majumdar  
Jt.Director : Professor Saikat Sinha Roy  
E-mail : dir.irss@jadavpuruniversity.in

**Course Offered:**

The School has introduced multidisciplinary PhD programme from 2011-12 academic session. While the essential focus remains on the strategic and security-centric issues, the research scholars admitted to the program also work on areas of bilateral relations among states and international organizations. The School at present has 10 research scholars enrolled in the programme.



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**The Faculty:**

The academic activities of the School are monitored by an Academic Committee whose members are drawn from different Departments spread over all the Faculties of the University. The Director and the Joint Director of the School during 2016-17 were from the Department of International Relations and the Department of Economics respectively.

**Area of Research Activities::**

The School has special interest in the areas of international relations and strategic studies, in foreign policy and event analysis, emerging issues and concepts of global politics. During 2016-17 Dr. Sumit Roy, former Research Associate of School of Oriental and African Studies, University of London, was attached with the School as a Visiting Research Fellow working on 'Aspects of India's Soft Power'. Manuscript of a research monograph on *Refugee and Terror in Europe* by Professor Jyotirmoy Banerjee was sent to Press in March 2017.

**Seminar / Workshop / Conference Organized:**

A Students' Seminar in collaboration with the Jadavpur Association of International Relations on *Security: Internal and External Constraints* was held on April 2, 2016. Former Director of the School Professor Purusottam Bhattacharya delivered the Key-note address.

A Seminar in collaboration with the Observer Research Foundation, Kolkata Chapter was held on *70 years of the United Nations* July 23, 2016. Main Speaker of the event was the former Under-Secretary General of the United Nations, Sashi Tharoor, M.P. Professor Suranjan Das, the Vice Chancellor of Jadavpur University and Professor Anindya Jyoti Majumdar, Director of the School also made presentations on the occasion.

A Seminar on Indian foreign policy titled *World via South Block* was held on September 28, 2016. Essentially a students' initiative, the seminar was supported by the School of International Relations and Strategic Studies and the School of Media, Communication and Culture.

A Seminar on *Contemporary South Asia* was held on March 21, 2017 in collaboration with the Maulana Abul Kalam Azad Institute of Asian Studies, Kolkata. Professor Samir Kumar Das delivered the key-note address. Papers were presented by Dr. Shantanu Chakrabarti, Dr. Sreeradha Datta, Dr. Kakoli Sengupta, and the Professors of the Department Omprakash Mishra, Parthapratim Basu, Anindya Jyoti Majumdar and Shibashis Chatterjee.

A 7-day Workshop was held during August 8-17, 2016 on *Research Methods in International Relations and other Related Social Sciences* in collaboration with the Jadavpur Association of International Relations partially supported by ICSSR-ERC. Professor Parthapratim Basu coordinated the Course.

**Talks:**

The following talks by noted experts were organized by the School:

- May 5, 2016, National Professor Jayanta Kr. Ray on *Indian Foreign Policy: An Overview*
- July 29, 2016, Dr. Sumit Ray on *India's Soft Power* and Dr. Saurabh Dutta Choudhury on *India's Nuclear Decisions*
- September 8, 2016, Ambassador Rajendra Pai on *Political Reality in Thailand*
- December 5, 2016, Professor John Garver on *India, China and the Asian Century*

**Other Programmes:**

A Round Table on 'Implications of BREXIT' was organized on September 20, 2016 jointly with the Department of International Relations where Professors from Jadavpur University and the University of Hull, UK, made presentations and exchanged views.

On November 4, 2016, the School organized a Book Launch program releasing the book *India becoming a World Power in the 21<sup>st</sup> Century* (Edited by Rajkumar Kothari and Eyasin Khan).

The School also finalized the Annual Jayantanuja Bandyopadhyaya Memorial Lecture programme delivered by Prof. Sugata Basu on April 13, 2017, M.P. jointly with the Department of International Relations, Jadavpur University.

**LANGUAGES & LINGUISTICS**

Int. : 2457-2144/2943

Director.: Prof. Mahidas Bhattacharya

E-mail : dir.language@jadavpuruniversity.in

**1. A. Courses Offered** (Name and Duration) :

**i) Linguistics:** MA, MPhil, PhD, ED & Certificate Courses ( in Linguistics, Semester System )

- a. MA (2 years, from July 2013) in Linguistics (Under the Faculty of Arts )
- b. M Phil (2 years, July 2013) in Linguistics(Under the Faculty of Interdisciplinary studies)
- c. PhD Course (From 2011) in Linguistics(Under the Faculty of Interdisciplinary studies)
- d. Extra-Departmental (ED) Course in Linguistics: UG, Faculty of Arts, 6 courses
- e. Certificate Course on Introduction to Linguistics: In 2 Semesters (evening)

**ii) Language Courses:** 27 Language Courses of 13 Languages (annual System)

**Certificate Courses (1 Year)** :French, German, Italian, Portuguese, Spanish, Korean, Japanese, English (six months), Chinese (from 2013), Bengali, Hindi, Sanskrit, Pali.

**Diploma Courses (1 Year):** French, German, Spanish, Japanese, Italian, Korean, Portuguese, Bengali, Sanskrit, Hindi

**Advanced Diploma Courses (1 Year):** French, Portuguese, Japanese.

**Advanced Diploma I & II (two years):**Bengali

**Short Term Language Course:** Bengali for the students of Japanese Student from Tokyo University of Foreign Studies

**1. B. Number of Faculty Members :**

1. Dr. Mahidas Bhattacharya (Linguistics), Professor & Director
2. Dr. Samir Karmakar (Linguistics), Assistant Professor & Joint Director
3. Dr. Atanu Saha (Linguistics) Assistant Professor

**Guest Faculties for regular linguistic Courses: 4**

**Guest Faculties for Language Courses: 21**

**Student Enrolment: 560 admitted in Regular Linguistics course and language courses** offered by the School.

**i) Linguistics:** Records of Students' enrolment in Linguistics in the year April 2016 to March 2017.

2016-17	MA	M Phil	PhD	Certificate	ED	TOTAL
1 <sup>st</sup> Year	30	12	9	18	53	= 152
2 <sup>nd</sup> Year	26	9	-	-	-	= 35
Total	56	21	9	18	53	= 187

**ii) Languages Courses in 2016-2017 :** 347 + 15 (Pali) + 11 (Students from Tokyo University of Foreign Studies = 373

(35 Students from different foreign countries like South Korea, Hong Kong, Japan, Fiji, Bangladesh, Italy, Spain, England, Rumania, Mexico, Argentina, Brazil, U.S.A, Canada etc also attend the Bengali, Hindi and Sanskrit courses)

**2. A. Area of Research Activities:** (Broad Areas)

1. Language Documentation & archiving (for Endangered and Indigenous Languages )
2. Core areas of Linguistics
3. Language, Logic and Mathematics
4. Language, Grammar and Technology

**2. B. Major Research Project :**

**Departmental:**

1. "Study and Research in Indigenous and Endangered Languages in India during XIIth Plan period" is one of the most important prestigious Project of around Rs. 3crores. Duration of the Project is 5 years. Funding Agency is UGC, Govt. of India.

Principal Investigator : Dr. MahidasBhattacharya , Professor and Director of the School.

Co-Principal Investigator: Dr. AtanuSaha, Assistant Professor, School of Languages and Linguistics

**Individual :**

1. Mahidas Bhattacharya : Working for a "Tree Bank Project of Bengali" in Collaboration with the Dept. Computer Science, JU and IIIT Hyderabad.

**3. A. Invited Lectures Delivered/Sessions Chaired:**

**Prof. Mahidas Bhattacharya:**

1. Bhattacharya, M. (2017). Problems and Possibility of Higher Education in Mother Tongue. In মাতৃভাষায় উচ্চশিক্ষা: সমস্যা ও সমাধান, Organized by Bynajanbarna and Dept of Education Jadavpur University, March, 2017 .
2. Bhattacharya, M. (2017). Origin of Language as Resource Person in 64<sup>th</sup> Orientation, Programme UGC-HRDC, Jadavpur University Salt Lake Campus, Kolkata, February 16, 2017.
3. Bhattacharya, M. (2016). Language, Technology and Grammar in 62<sup>nd</sup> Orientation Program of UGC-Human Resource Development Centre, Jadavpur University, Kolkata, September 10, 2016.

4. Bhattacharya, M. (2016). Literature and Multilingual India in 1<sup>st</sup> Refreshers' Course , Department of Comparative Literature , University of Calcutta on Indian Culture in Broad Perspectives , December 2016.
5. Bhattacharya M. (2016) . Multilingualism and Indian Literature in 1<sup>st</sup> Refreshers' Course, Department of Comparative Literature , University of Calcutta on Indian Culture in Broad Perspectives , 15 December 2016.
6. Bhattacharya, M. (2016). Comparative Grammar to Comparative Philology – Asiatic Society, December 2016, on the occasion of 225 years of the publication of *Abhijnanaa Sakuntala* by W. Jones, at Asiatic Society, Kolkata.
7. Bhattacharya M , (2016) বাংলাভাষা ও সাহিত্যে প্রযুক্তিগত সম্ভাবনা ( 25-26 November 2016. Venue: Dr. K.P. Basu memorial hall, Jadavpur University) in a Seminar on Bengali Language and Literature: Technological Potentials

**Dr. Atanu Saha:**

1. Invited talk on 'Doing transcription via PRAAT' for Mphil PhD Scholars, in *Field work and Documentation: Language, Literature and culture of Tribes*. Visva Bharati University 27/6/17
2. Chaired a session in *The 22nd Himalayan Languages Symposium* organized jointly by the Department of Humanities and Social Sciences and the Center for Linguistic Science and Technology, Indian Institute of Technology Guwahati from June 8 to June 10, 2016.
3. Gave two talks at Subhas Chandra Basu Centenary College on *language documentation and introduction to linguistics* on 16-17<sup>th</sup> December 2016.
4. Gave a talk on *introduction to Minimalist Syntax* at Tezpur University organized by ISI Kolkata between 9-11 March 2017.

**Dr. Samir Karmakar:**

1. Delivered a series of lectures on "Languages in Multilingual Classrooms" in *Teachers' Training Programme* in Malbazar Block Jalpaiguri (WB). Conducted by CIIL, Mysore, 27/06/2016-01/07/2016.
2. Delivered a series of lectures on "Linguistics in Bangla" in the Department of Bangla, Medinipur College, W.B. on 29/04/2017 & 13/05/2017.

**3. B. Seminar/Workshop/Conference/Symposium Attended:**

**Dr. Atanu Saha:**

1. Nirikh Shahittya Sammlilon, a Literary Conference organized by The Magazine Nirikh, held on March 2-3, 2017 in the Rajshahi University Campus, Bangladesh.
2. Presented a poster on Deictic categories in Tibetan in *The 22nd Himalayan Languages Symposium* will be organized jointly by the Department of Humanities and Social Sciences and the Center for Linguistic Science and Technology, Indian Institute of Technology Guwahati from June 8 to June 10, 2016 co-authored with Sayani Banerjee.
3. Presented a paper on সোশাল মিডিয়ায় বাংলা সাহিত্য চর্চা ও সম্ভাবনা with Rakib during the seminar on Bengali Language and Literature: Technological Potentials 25-26 November 2016 at Jadavpur University.

4. Presented a paper on Anaphors in Toto during the 5th International Endangered and Lesser-known Languages Conference organized by Central University of Jharkhand 24-26 February 2017.

**Dr. Samir Karmakar:**

1. Karmakar, S., Banerjee, A., Ghosh, S.S., Banerjee, S. (2017). Grammar as Graph: A Lexicalist Treatment of Traditional Bangla Grammar. In *7th Indian Conference on Logic and Its Applications*. (5-7 January 2017) at IIT Kanpur.
2. Karmakar, S., Ghosh, S.S., Banerjee, A. (2016). Syntax and Pragmatics of Conversation: A case of Bangla. In *13th International Conference on Natural Language Processing* (17-20 December, 2016) at IIT BHU.
3. Karmakar, S., Ghosh, S.S., Banerjee, S. (2016). Graph Theoretic Interpretation of Bangla Traditional Grammar. In *13th International Conference on Natural Language Processing* (17-20 December, 2016) at IIT BHU.
4. Banerjee, S. and Karmakar, S. (2016). Construal of time in Bangla: An integrated syntactic framework. In *International Conference on Dravidian Linguistics 2016 (ICDL-2016) & 44th All India Conference of Dravidian Linguistics (44th AICDL)*. June 16-18, 2016 at CALTS, University of Hyderabad.

**3. C. Seminar/Workshop/Conference/Symposium Organized:**

**Dr. Samir Karmakar and Dr. Atanu Saha:**

1. Act as joint coordinators for a **3 days Workshop for Scholars on Language and Literature** in collaboration with UGC-Human Resource Development Center, Jadavpur University, October 4-6, 2016.
2. Jointly mentored **11<sup>th</sup> Students' Conference of Linguistics in India**, coordinated by Soumya Sankar Ghosh and Arka Banerjee, academic and administrative supports provided by School of Languages and Linguistics, JU, Central Institute of Indian Languages, Mysore, and Microsoft India, January 28-30, 2017.

**Dr. Atanu Saha:**

1. **Two days National level seminar on Bengali Language and Literature: Technological Potentials** 25-26 November 2016 at Jadavpur University in collaboration with Dept of Bengali, Sarsuna College.
2. **Workshop on Applying to Graduate Schools in the USA By Geraldine Forbes**, Distinguished Teaching Professor Emeritus, Department of History State University of New York Oswego at Jadavpur University on 13<sup>th</sup> February 2016.

**3. D Workshop Organized by the Project Team (UGC) of Endangered Languages:**

1. Workshop of UGC-SRIELI on "Questionnaire Consolidation & Software Training for Language Documentation" by School of Languages and Linguistics, Jadavpur University Dated: 27<sup>th</sup> & 28<sup>th</sup> December, 2016
2. One Day Seminar-cum-Workshop on Field Survey Language Archiving and the study of Endangered Languages. Organized by the under the Project SRIELLI-SLL-JU (UGC) School of Languages and Linguistics, JU, 30 March, 2017



**3. D. Orientation Courses/ Refresher Courses Attended:**

1. Dr. Atanu Saha attended the 6<sup>th</sup> Orientation Course 25<sup>th</sup> to 19<sup>th</sup> August 2016 organized by HRDC, Jawaharlal Nehru University, New Delhi.
2. Dr. Samir Karmakar attended 63<sup>rd</sup> Orientation Programme, 15.11.2016 – 12.12.2016, Organized by UGC-HRDC, Jadavpur University, Kolkata.

**4. B. Articles Published in Journals: (Including National/International & Peer-reviewed Journals)  
(Name of the Teacher, Name of the Articles, Name of the Journal, Date of Publication, Volume)**

**Dr. Samir Karmakar:**

1. Ghosh, S.S., Karmakar, S., Banerjee, A. (2017). Functional Significance of Contextual Distribution: Discourse Particle AR in Bangla. *Acta Linguistica Asiatica*, 7(1), pp. 23-39, DOI: 10.4312/ala.7.1.23-39
2. Sengupta, B., Karmakar, S. (2017). Multilinguality in Classrooms: Looking at the Primary Education in West Bengal. *Language and Language Teaching*, Vol. 6, No. 1, Issue 11, January 2017, pp.36-42.
3. কর্মকার, এস. (২০১৭)। সত্য আর সত্তা: অরিন্দম চক্রবর্তীর ন্যায়সঙ্গত এবং জ্ঞানতাত্ত্বিক এক অনুসন্ধান। *আলোচনাচক্র*, সংকলন ৪২, জানুয়ারি ২০১৭, পৃষ্ঠা ৮৮-৯৯, কলকাতা।
4. Karmakar, S., Ghosh, S.S., Banerjee, A. (2016). Syntax and Pragmatics of Conversation: A case of Bangla. *Proceedings of 13th International Conference on Natural Language Processing* indexed by ACL-Anthology, pp. 65-70.
5. Karmakar, S., Ghosh, S.S., Banerjee, S. (2016). Graph Theoretic Interpretation of Bangla Traditional Grammar. *Proceedings of 13th International Conference on Natural Language Processing* indexed by ACL-Anthology, pp. 129-136.
6. কর্মকার, এস. (২০১৬)। ন্যাকামো ভাষা। শ্যামশ্রী বিশ্বাস (সংকলন ও সম্পাদনা) *বহুরূপে ভাষা: প্রয়োগের বাংলা ব্যবহারের বাংলা*। তৃতীয় খণ্ড, পৃষ্ঠা ১২৭-১৩২। প্রতিভাস, কলকাতা।

**Dr. Mahidas Bhattacharya:**

1. Bhattacharya, M. (2017) সুনীতিকুমার চট্টোপাধ্যায়-কালান্তরের পরিণত জ্ঞানঋদ্ধ ব্যক্তিত্ব, সংবর্তক, বইমেলা সংখ্যা, ত্রয়োদশ বর্ষ, প্রথম সংখ্যা, জানুয়ারি। ২০১৭, পৃষ্ঠা ৩১১-৩৯১।
2. Bhattacharya, M. (2016) কথ্যভাষা ও প্রযুক্তি। *বাংলা ভাষা ও সাহিত্যে প্রযুক্তিগত সম্ভাবনা- সম্পাদনা* তন্ময় বীর ও অতনু সাহা। পৃষ্ঠা ৪৩-৫২।
3. Bhattacharya, M. (2016) আদি অধিবাসী, *বারণরেখা*, ২০১৬।

**5. Collaborative Programmes:**

Dr. Samir Karmakar and Dr. Atanu Saha jointly mentored Students' Conference of Linguistics in India (SCONLI-11<sup>th</sup>) which was coordinated by Soumya Sankar Ghosh and Arka Banerjee. Administrative and academic supports provided by Central Institute of Indian Languages (CIIL), Mysore, Microsoft India, and School of Languages and Linguistics. 28-30 January, 2017.

**6. Major Achievements**

**Departmental:**

1. The successful implementation of the project on "Study and Research in Indigenous and Endangered Languages in India during XIIth Plan period", (UGC funded) is the major achievement in this



academic year. The Money was sanctioned in April 2017, but released in September. The manpower (3 RAs, 1 DO, 1 PA and 1 Office staff) recruitment, installation of the instruments and the arrangement of the Space took the major effort of the Team. The academic activity of the year is also organized through workshops inviting experts from different parts of the country and the Field work.

2. MOU signed between Jadavpur University and ADAM MICKIEWICZ UNIVERSITY, Poland.
3. Academic Contact between School of Languages and Linguistics and the Yunan Normal University, China for PhD program to Chinese Students.

#### Individual:

##### Dr. Atanu Saha:

1. Conducted a field trip for the MA students in Totopara Alipurduar in 21-27<sup>th</sup> September 2016.
2. Joined as an Editor for the International Journal on English Language Teaching <http://ccsnet.org/journal/index.php/elt/about/editorialTeam> since October 2016

#### 7. Students' Presentation

1. Barman, Sankar Ram 2017, *প্রযুক্তির সাপেক্ষে বাংলা ব্যাকরণ* Bengali Grammar: Processing for modern technology), U.G.C sponsored National seminar of Bengali Language And Literature: Technological Potentials, organized by Bengali Department, Sarsuna College in collaboration with School of Languages and Linguistics, Jadavpur University, 25<sup>th</sup> to 26<sup>th</sup> November, 2016, Dr. K P Basu Memorial Hall, Jadavpur University.
2. Banerjee, A. (2017). Grammar as Graph: A Lexicalist Treatment of Traditional Bangla Grammar (in collaboration with Karmakar, S., Ghosh, S.S., Banerjee, S.). In *7th Indian Conference on Logic and Its Applications*. (5-7 January 2017) at IIT Kanpur.
3. Majumder, A. Introduction to Linguistic Anthropology & its Methods. (2017) . School of Languages and Linguistics, Jadavpur University . March, 2017.
4. Majumder, A. Kurmis and Their Language: An Ethno- linguistic Perspective. (2017). School of Languages and Linguistics, Jadavpur University.
5. Saha, A, & Banerjee, S. (2016). Deictic categories in Tibetan. *22nd Himalayan Languages Symposium*. June 8-10,2016. IIT Guwahati, India.
6. Banerjee, S. (2016). Construal of Time in Bangla - An Integrated Syntactic Framework (in collaboration with S. Karmakar) *The International Conference on Dravidian Linguistics 2016 & 44<sup>th</sup> All India Conference of Dravidian Linguistics*. June 16-18, 2016. Centre for Applied Linguistics and Translation Studies (CALTS), School of Humanities, University of Hyderabad, India.
7. Banerjee, S., & Sen, S. (2016). Code-Switching in Bangla Movies- A Syntactic Study. *38<sup>th</sup> International Conference of Linguistic Society of India*. November 10-12, 2016. Indian Institute of Technology, Guwahati, Assam, India.
8. Banerjee, S. (2017). Ramblings from Depressed Minds. *Challenges In Depressive Language Use: Developing Cognitive Tools For Depression Detection*. March 15-16, 2017. School of Cognitive Science, Jadavpur University, Kolkata.
9. Chowdhury, Purbita. (2013). "The Peterborough Chronicles". Intradepartmental Seminar on Old English and Middle English organized by Jadavpur University Department of English. 30 October, 2013. Jadavpur University. Chowdhury, Purbita and Apratim Mukherjee. (2013) "A Comparative

Study of three Film Adaptations of *Taming of the Shrew*". *Shakespeare in/and America* organized by Jadavpur University Society for American Studies (JUSAS). 22 October, 2013. Jadavpur University

10. Giri, P. (2017). 'Paschimbanga O Bihar Dui Pratibeshi Rajjer Krishivittik Probad-Probochon: Akti Samaj O Vasatattik Alochona'. Bengali Society, Language & Literature: Cultural Transaction, among Neighbour(s). 8-10 February, 2017. Sidho-Kanho-Birsha University, Purulia.
11. Pakrashi Moumita, (2016). Modern Standard Colloquial Bangla: Micro And Macro Segment Study. 38th International Conference of Linguistic Society of India, IIT Guwahati. 10-12 November 2016. Indian Institute of Technology Guwahati, Assam, India.
12. Gayen, P.K. (2016). Disambiguating Bangla Verbs In Lexical Functional Grammar, 38th International Conference of Linguistic Society of India, IIT Guwahati, 10-12 November'16, Indian Institute of Technology Guwahati, Assam, India.
13. Nandi, T. (2017). Tense and Aspect in Toto. 5th International conference on Endangered and lesser-known languages. February 24-26. Central University of Jharkand, Ranchi.
14. Panja, A. (2017). Structure of Negation in Toto. 5th International conference on Endangered and lesser-known languages. February 24-26. Central University of Jharkand, Ranchi.
15. Sengupta, A. (2017). A take on Adverbial Structures in Toto Language. February 24-26. Central University of Jharkand, Ranchi.
16. Giri, P. (2016). 'The Study of Bangla Language Varieties at South 24 Parganas in West Bengal'. SCONLI-10 (Tenth Students' Conference of Linguistics in India). March, 2016. RTM Nagpur University, Nagpur.

**UGC-SRIELI Staffs:**

17. Piplai, D. (2017). Presentation on 'Creating Classroom Strategies Using Variation and Mixing' at workshop on 'Grammar in the Classroom', as a part of INCP, A Micropomparative Study of Doubling in Dialects on Meteilon and Norwegian as a case of Syntactic Variation, University of Delhi, February, 2017.
18. Lahiri, B. (2017). Major versus Minor regional languages: A Case study of Naxalbari, presented at 5th Endangered and Lesser Known Languages Conference, Central University of Jharkhand, Ranchi, 24th to 26th February 2017.
19. Soor, S. (2016). Preparing Metadata at Field Level (on 28th December, 2016). Workshop of UGC-SRIELI on Questionnaire Consolidation & Software Training for Language Documentation Jadavpur University, Kolkata, 27-28 December, 2016
20. Soor, S. (2017). e-Archiving : An Overview (on 30th March, 2017). One Day Seminar-cum-Workshop on Field Survey, Language Archiving and the study of Endangered Languages. Jadavpur University, Kolkata. 30th March, 2017

**Paper Published by Students:**

1. Ghosh, S.S., Karmakar, S., Banerjee, A. (2017). Functional Significance of Contextual Distribution: Discourse Particle AR in Bangla. *Acta Linguistica Asiatica*, 7(1), pp. 23-39, DOI: 10.4312/ala.7.1.23-39
2. Sengupta, B., Karmakar, S. (2017). Multilinguality in Classrooms: Looking at the Primary Education in West Bengal. *Language and Language Teaching*, Vol. 6, No. 1, Issue 11, January 2017, pp.36-42.

3. Mukherjee, Jenia and Purbita Chowdhury (2016). "Towards Environmental Humanities". E-Qual News.3(5).23-27. E-QUAL.

**Research Associates:**

4. Majumder, A. (2017). Ethno-Medical Practices among the Bhumij of Jharkhand, India. BAOJ Medical and Nursing, Vol.3, Issue-1. Pp. 1-6.
5. Majumder, A. (2016). Role of Gender towards Income Generation: An Impact Analysis of Land Acquisition in West Bengal, India. Sociology Study. Vol 6, Issue 10. pp. 639-652.
6. Piplai, D. (2016). 'The Periphery of Language Faculty and Variation: A Case of Rajbanshi Children' in *Indian Linguistics*, Vol. 77 (Nos. 1-2), 2016, pp. 103-117. ISSN: 0378-0759
7. Piplai, D. (2016). 'Multilingual Students in One Classroom' in souvenir of 'Tea and Tribal Festival', 2016. Tribal Welfare Department, Alipurduar, Government of West Bengal.

**MATERIALS SCIENCE & NANOTECHNOLOGY**

Phone : + 91-33-6512 8636

Int. : 2457-2876

Director.: Dr. K. K. Chattopadhyay

E-mail : dir.nanotech@jadavpuruniversity.in

**1. A. Course Offered:**

Course Offered	Duration	No. of Students
M. Tech. In Nano Sc. & Tech.	2 years	20 each batch

**1. B. Number of Faculty Members:**

Director: Prof. Kalyan Kumar Chattopadhyay

Contractual Assistance Professor - 2

Honorary Services from Engineering Faculty – 10

Honorary Services from Science Faculty – 1

**2. A. Areas of Research Activities:**

- i) Development of multifunctional nanostructured materials
- ii) Physical properties of Low dimensional systems
- iii) Carbon Nanomaterials: CNT, Graphene and their composites
- iv) Semiconductor Nanomaterials
- v) Transparent conducting oxides: p-type and n-type oxide nanomaterials
- vi) Multiferroic materials
- vii) Nano-bio Materials
- viii) Nano energy
- ix) Nano Phosphor materials
- x) Ab initio calculations; DFT studies

## 2. B. On-going Major Research Projects

1. Title: Synthesis of MgO-Carbon Refractory for Steel Making; Funding Agency: Steel Authority of India-RDCIS (SAIL-RDCIS); 2013-17; P.I. –Prof. K.K. Chattopadhyay, Co-Investigator: Prof. S. Mukherjee,
2. DST Nanomission project in Nanoscience & Technology for PG teaching and Research -DST-Nano Mission 2015 -2021; Prof. K.K. Chattopadhyay (Co-ordinator)
3. Development of wide band gap p-type transparent metal oxide chalcogenides thin films for oxide electronics; Funding Agency – DST; 2014-2017; Prof. K.K. Chattopadhyay (P.I.)
4. Physico-chemical Processing of Low Grade Chromite Ore for Beneficiation and Agglomeration of Fines for Recovery of Metal Values Ministry of Mines 2015 – 2018; Dr. R. Dey, Prof. S. Mukherjee, Dr. M. Ghosh Chaudhuri

## 3. A. Invited Lectures Delivered:

1. Prof. K.K. Chattopadhyay delivered the Keynote Address in the National Conferences “Advances in Materials Science” during 24 - 25 March 2017, at Guwahati University, Assam
2. Prof. K.K. Chattopadhyay delivered an Invited Lecture at 2nd International Conference on Emerging Materials: Characterization & Application (EMCA-2017) at Durgapur during March 15-17, 2017.
3. Prof. K.K. Chattopadhyay delivered an Invited Lecture at Diamond Harbour Women University on 11<sup>th</sup> July 2017.
4. Prof. K.K. Chattopadhyay delivered an Invited Lecture at *Recent Advances and Fundamentals of Nanomaterials for Applications in Photonics (RAFNP-2017)* to be held on February 15-19, 2017 at Dept. of Physics, NIT Durgapur.
5. Prof. K.K. Chattopadhyay delivered an Invited Lecture at National Seminar on Nanoscience and Nanotechnology: NSNN 2017" during 17<sup>th</sup> - 18<sup>th</sup> March 2017
6. Prof. K.K. Chattopadhyay delivered two Invited Lectures at Jadavpur University in Engineering & Materials for Sustainable Development” organized under the auspices of Global Initiative for Academic Networks (GIAN) Programme of MHRD, Government of India during 27<sup>th</sup> January and 2<sup>nd</sup> February, 2017.
7. Prof. K.K. Chattopadhyay delivered an Invited lecture at Ramakrishna Mission Vidyamandira, Belur Math, Platinum Jubilee Commemorative one-day (12<sup>th</sup> April, 2017) national level seminar on “Recent Advances in Materials Science”.
8. Prof. K.K. Chattopadhyay invited for delivering Keynote lecture in Interface of Physical, Chemical and Biological Sciences (IPCBS-2017) and its interdisciplinary relevance From Dr. H.S. Gour Central University, Sagar.
9. Prof. K.K. Chattopadhyay delivered an Invited Lecture in the International Conference International Conference on the topic Industry Interactive Innovation in Science, Engineering and Technology (I3SET) during 25<sup>th</sup> -26<sup>th</sup> October, 2016, JIS College of Engineering.
10. Prof. K.K. Chattopadhyay received invitation for delivering an Invited Lecture at National Conference on Recent Advances in Nanoscience and Nanotechnology (NCRANNT-2016) during 8<sup>th</sup>-9<sup>th</sup> Sept., 2016, NEHU, Assam

**Annual Report 2016-17**

11. Prof. K.K. Chattopadhyay Delivered Invited Lecture in International Conference on Functional Nanomaterials, 28-29<sup>th</sup> September, 2016, IEST, Shibpur, (W.B)
12. Prof. K.K. Chattopadhyay Delivered Invited Lecture National Level seminar on “Characterization of Nanomaterials” is going to be organized by the Department of Physics, Ramananda College, during September 22-23, 2016.
13. Prof. K.K. Chattopadhyay delivered an Invited Lecture in “Technology Workshop on Current Workshop on Current & Emerging Technologies in Steel & Refractories (CREST-2016), 7-8<sup>th</sup> April, 2016, RDCIS, Ranchi.
14. Prof. K.K. Chattopadhyay delivered Keynote Address in Nanomaterials: Emerging Trends, Institute of Chemical Technology, 16-17<sup>th</sup> September, 2016.
15. Prof. K.K. Chattopadhyay delivered Keynote Address in High Frequency Application in Nanoelectronics and Photonic Devices, RCC Institute of Information Technology, 11-15, July 2016
16. Prof. K.K. Chattopadhyay delivered an Invited Lecture in National Conference entitled ‘Nanotechnology as a carrier: an Indian perspective’ 12<sup>th</sup> May, 2016, JIS College of Engineering
17. Prof. K.K. Chattopadhyay delivered an Invited Lecture in Workshop on Nanomaterials and Devices (NMD 16), NIT Durgapur, 7-10 May, 2016
18. Prof. K.K. Chattopadhyay delivered an Invited Lecture in National Conference entitled “Emerging trends of Advance Science and Humanities for the applications in Technogchhny” Batanagar Institute of Technology on 22nd April 2016
19. Prof. K.K. Chattopadhyay delivered an Invited Lecture on Research methodology in Nanotehnology, Department of Radio Physics and Electronics, University of Calcutta 16-30 June, 2016
20. Dr. Mahua Ghosh Chaudhuri delivered invited talk in “National Seminar on application of nanomaterials and allied fields” organized by Institute of Science, Education and Culture on 3<sup>rd</sup> September, 2016 at BITM, Kolkata.
21. Dr. C.K. Ghosh delivered Invited lecture on Modern Techniques of structure determination, TEQIP sponsored workshop on “Structure Property Correlation” on 24.09.2016, Department of Mechanical Engineering.

**Best Paper /Poster Award from Prof. K. K. Chattopadhyay’s group in Conferences:.**

1. Study of Optical Properties of Amorphous Carbon Nanotube-CdSe Quantum Dot Hybrid, S. Sarkar, D Pahari, D. Banerjee, N.S. Das and K.K. Chattopadhyay 4<sup>th</sup> International Conference on Nanoscience and Nanotechnology (ICONN-2017), SRM University, Aug 9-11, 2017 (Winner of Best Paper Award)
2. Quasi-aligned WO<sub>3</sub> nanorods on carbon cloth: advanced materials for energy storage devices (Best poster presentation) Shreyashi Pal, K.K. Chattopadhyay, W.B. State Science Congress (2016).
3. Photocatalytic and sensing properties of octa-twin zinc oxide tetraleg nanostructures Shreyasi Pal, and K. K. Chattopadhyay , (Best oral presentation award) in Emerging Trends In Condensed Matter Physics & Materials Science” (ETCMPMS-2016) University of Kalyani.



### 3. A. Seminar /Workshop /Conference /Symposium Organized:

Conference Organized:

1. **Organized International Symposium for Semiconductor Materials and Devices (ISSMD 4)** at Jadavpur University as Organising secretary; during March 8-9, 2017.
2. **Organised Project Advisory Committee Meeting of the Department of Science and Technology (PAC DST)**, the Govt. of India, on Condensed Matter during 16-19th April, 2017 as Co-ordinator of the programme.
3. A **National Conference** entitled “National Conference on Nanotechnology: Materials to Applications” were organized (Prof. K.K. Chattopadhyay as Convener) during June 16-17 (2016)

### 4. A. Articles Published in Journals:

List of publications (In Journals only):

1. Perovskite Beyond Photovoltaics: Field Emission from Morphology Tailored Nanostructured Methylammonium Lead Triiodide  
Nripen Besra, Shreyasi Pal, Bikram Kumar Das and Kalyan Kumar Chattopadhyay  
**Physical Chemistry Chemical physics (In Press-2017)**
2. Aspect Ratio Dependent Cold Cathode Emission from Vertically Aligned Hydrophobic Silicon Nanowires  
U. Ray, D. Banerjee, B. Das, N.S. Das, S. K. Sinha, K. K Chattopadhyay  
**Materials Research Bulletin (2017)**<https://doi.org/10.1016/j.materresbull.2017.08.051>
3. Graphene anchored P-type CuBO<sub>2</sub> nanocrystals for transparent cold cathode  
Saswati Santra, Nirmalya Sankar Das; Nripen Besra, Diptonil Banerjee, Kalyan K. Chattopadhyay  
**Langmuir (In Press-2017) DOI: 10.1021/acs.langmuir.7b01650**
4. Co<sub>3</sub>O<sub>4</sub> nanowires on flexible carbon fabric as a binder free electrode for all solid state symmetric supercapacitor, Promita Howli, Swati Das, Samrat Sarkar, Madhupriya Samanta, Karamjyoti Panigrahi, Nirmalya Sankar Das, Kalyan Kumar Chattopadhyay  
**ACS Omega (2017), 2, 4216-4226.**
5. Negative-Charge-Functionalized Carbon Nanodot: A Low-cost Smart Cold Emitter.  
S. Santra, N.S. Das, S. Senapati, D. Sen, K.K. Chattopadhyay, K.K. Nanda  
**Nanotechnology, (2017) 28, 395705.**
6. Exploring the effect of hole localization on the charge-phonon dynamics of hole doped delafossite, Nilesh Mazumder, Prasanta Mandal, Rajarshi Roy, Subhajit Saha, Uttam Kumar Ghorai, Kalyan Kumar Chattopadhyay  
**Journal of Physics: Condensed Matter (2017) 29, 375701**
7. Topological Insulator Bi<sub>2</sub>Se<sub>3</sub> / Si Nanowires Based p-n Junction Diode for High Performance Near Infrared Photodetector, Biswajit Das, Nirmalya S. Das, Samrat Sarkar, Biplab K. Chatterjee and Kalyan Kumar Chattopadhyay  
**ACS Applied Materials & Interfaces (2017) 9, 22788-22798**
8. Novel Quaternary Chalcogenide / rGO Based Asymmetric Supercapacitor with High Energy Density, Samrat Sarkar, Promita Howli, Biswajit Das, Nirmalya Sankar Das, Madhupriya Samanta, G. C. Das and Kalyan Kumar Chattopadhyay



**ACS Applied Materials & Interfaces (2017) 9, 22652-22664**

9. Role of oxygen functionality on the band structure evolution and conductance of reduced graphene oxide, Rajarshi Roy, RanjitThapa, SoubhikChakrabarty, ArunavaJha, Priyanka R Midya, E. M Kumar and Kalyan Kumar Chattopadhyay

**Chemical Physics Letters (2017) 677, 80-86**

10. Negative capacitance in ZnO<sub>1-x</sub>Ch<sub>x</sub> (Ch = S, Se, Te): Role of localized charge recombination, NileshMazumder, PrasantaMandal, Rajarshi Roy, Uttam Kumar Ghorai,SubhajitSaha and Kalyan Kumar Chattopadhyay

**Journal of Applied Physics (2017) 121, 135702**

11. Raman Spectroscopic Observation of Gradual Polymorphic Transition and Phonon Modes in CuPcNanorod, Uttam Kumar Ghorai, NileshMazumder, Hitesh Mamgain, Rajarshi Roy, SubhajitSaha and Kalyan Kumar Chattopadhyay

**J. Phys. Chem. (2017) 121 (11), pp 6323–6328**

12. Effect of Cobalt Doping into Graphitic Carbon Nitride on Photo Induced Removal of Dye from Water, D. Das, D. Banerjee, B. Das, N.S. Das, K.K. Chattopadhyay

**Materials Research Bulletin (2017) 89 170 - 179**

13. Graphene wrapped Copper Phthalocyanine nanotube: Enhanced photocatalytic activity for industrial waste water treatment, M. Mukherjee, U. K. Ghorai, M. Samanta, A. Santra, G. P. Das, K. K. Chattopadhyay

**Applied Surface Science (2017) 418, 56-62**

14. Defect Induced Tuning of Photoluminescence Property in Graphitic Carbon Nitride Nanosheets through Synthesis Conditions, D. Das, D. Banerjee, D. Pahari, U.K. Ghorai, S. Sarkar, N.S. Das, K.K. Chattopadhyay

**Journal of Luminescence (2017) 185 155-165**

15. Solvent Dependent Phase Transition Between Two Polymorphic Phases of Manganese Tungstate: From Rigid to Hollow Microsphere, KaustavBhattacharjee, Satya R. Pati, Gopes C. Das, Kalyan Kumar Chattopadhyay

**Crystal Growth & Design(2017), 17 (2), pp 719–729**

16. Pseudo First Ordered Adsorption of Noxious Textile Dyes by Low-Temperature Synthesized Amorphous Carbon Nanotubes, D. Banerjee, P. Bhowmik, D. Pahari, S. Santra, S. Sarkar, B. Das, K. K. Chattopadhyay

**Physica-E (2016) 87, 68-76**

17. Removal of oxygen related defects from chemically synthesized In<sub>2</sub>O<sub>3</sub> thin film doped with Er by spin-on technique, AnupamGhosh, AniruddhaMondal, Avishek Das, Kalyan Kumar Chattopadhyay

**Journal of Alloys and Compounds(2016) 695, 1260-1265**

18. Cu<sub>2</sub>O/g-C<sub>3</sub>N<sub>4</sub> nanocomposites: An insight into the band structure tuning and catalytic efficiencies, AnuradhaMitra, PromitaHowli, DipayanSen, Biswajit Das and Kalyan Kumar Chattopadhyay

**Nanoscale (2016),8, 19099-19109**

19. Nanostructured CaCu<sub>3</sub>Ti<sub>4</sub>O<sub>12</sub> for environmental remediation through visible light active catalysis, ArindamSen, Kalyan Kumar Chattopadhyay

**J Mater Sci: Mater Electron (2016) 27:10393–10398**

20. RGO enveloped vertically aligned Co<sub>3</sub>O<sub>4</sub> nanowires on carbon fabric: A highly efficient prototype for flexible field emitter arrays, P. Howli, Swati Das, SubhajitSaha, Biswajit Das, ParthaHazra, DipayanSen and Kalyan Kumar Chattopadhyay  
**RSC Advances (2016) 2016,6, 91860-91869**
21. All-amorphous CNT-MnO<sub>2</sub> nanoflaky hybrid for improved supercapacitor applications, D Ganguly, D Pahari, Nirmalya S Das, P Howli, B. Das, Diptonil Banerjee, K.K. Chattopadhyay  
**Journal of Electroanalytical Chemistry (2016) 778, 12-22**
22. CdS nanoparticle coated carbon nanotube through magnetron sputtering and its improved field emission performance, S. Maity, N. S. Das, S. Santra, D. Sen and K. K. Chattopadhyay  
**Current Applied Physics (16 (2016) 1293e1302)**
23. Amorphous carbon nanotubes incorporated MgO-graphite composite with enhanced properties for steel making furnaces, D. Halder, P.R. Midya, S. Das, N.S. Das, I. Roy and K. K. Chattopadhyay  
**Ceramic International 42 (2016) 15826-15835**
24. Size Dependent Photoluminescence Property of Hydrothermally Synthesized Crystalline Carbon Quantum Dots, S. Sarkar, D. Banerjee, U. K. Ghorai, N. S. Das and K. K. Chattopadhyay  
**Journal of Luminescence (178 (2016) 314-23)**
25. Local Field Enhancement Induced Enriched CathodoluminescenceBehaviour from CuI-RGO Nanophosphor Composite for Field Emission Display Applications, SubhajitSaha, Rajarshi Roy, Swati Das, DipayanSen, Uttam Kumar Ghorai, NileshMazumderand Kalyan Kumar Chattopadhyay  
**ACS Applied Materials & Interfaces (2016) 8, 25571-25577**
26. Scheme of simultaneous cationic-anionic substitution in CuCrO<sub>2</sub> for transparent and superior p-type transport, PrasantaMandal, NileshMazumder, SubhajitSaha, Uttam Kumar Ghorai, Rajarshi Roy, Gopes Das, Kalyan Kumar Chattopadhyay  
**Journal of Physics D: Applied Physics. 49 (2016) 275109**
27. ZnO-(Cu/Ag)TCNQ heterostructure network over flexible platform for enhanced cold cathode application, Shreyasi Pal, SoumenMaiti,Uday Narayan Maiti, Kalyan Kumar Chattopadhyay  
**Nanotechnology 27 (2016) 26560-71**
28. Enhanced Adsorption of Hexavalent Chromium onto Magnetic Calcium Ferrite Nanoparticles: Kinetic, Isotherm, and Neural Network Modeling, A. Debnath, M. Majumder, M. Pal, N. S. Das, K. K. Chattopadhyay and BiswajitSaha,  
**J. Dispersion Sci. & Technology, Volume 37, Issue 12, (2016)**
29. Synthesis and characterization of mixed phase manganese ferrite and hausmannite magnetic nanoparticle as potential adsorbent for methyl orange from aqueous media: Artificial neural network modeling, K.L. Bhowmik, A. Debnath, R.K. Nath, S. Das, K.K. Chattopadhyay, B. Saha,  
**Journal of Molecular Liquid, 219 (2016), 1010-1022**
30. Nitrogen doping in acetylene bonded two dimensional carbon crystals: Ab-initio forecast of electrocatalytic activities vis-à-vis boron doping, Bikram Kumar Das, DipayanSen, Kalyan Kumar Chattopadhyay  
**Carbon (105 (2016) 330 - 339)**
31. Tailoring the Optical and Hydrophobic property of Zinc Oxide Nanorod by Coating with Amorphous Graphene, D. Pahari, N.S. Das, B. Das, K. K. Chattopadhyay, D. Banerjee

**Physica E (83 (2016) 47-55.**

32. Facile synthesis of ZnPc nanoflakes for cold cathode emission, Madhupriya Samanta, Uttam Ghorai, Biswajit Das, Promita Howli, Das Swati, Dipayan Sen and Kalyan Kumar Chattopadhyay

**RSC Advances (2016), 6, 42739-42744**

33. Chemically activated growth of CuO nanostructures for flexible cold cathode emission, Karamjyoti Panigrahi, Swati Das, Subhajit Saha, Biswajit Das, Dipayan Sen, Promita Howli and Kalyan Kumar Chattopadhyay

**Cryst Eng Comm (2016), 18, 3389-3398.**

34. Colossal magnetoresistance in amino-functionalized graphene quantum dots at room temperature: Manifestation of weak antilocalization and doorway to spintronics, Rajarshi Roy, Ranjit Thapa, Gundam Sandeep Kumar, Nilesh Mazumder, Dipayan Sen, S. Sinthika, Nirmalya S. Das and Kalyan K. Chattopadhyay

**Nanoscale (2016), 8, 8245-8254.**

35. rGO Wrapped Flowerlike Bi<sub>2</sub>Se<sub>3</sub> Nanocomposite : Synthesis, Experimental and Simulation Based Investigation on Cold Cathode Applications

Biswajit Das, Samrat Sarkar, Rimpa Khan, Saswati Santra, Nirmalya Sankar Das and Kalyan Kumar Chattopadhyay

**RSC Advances (2016), 6, 25900-25912.**

36. Easy synthesis of porous carbon mesospheres and its functionalization with Titania nanoparticles for enhanced field emission and photocatalytic activity

Dheeraj Kumar, Diptonil Banerjee, Sourav Sarkar, Nirmalya S. Das and Kalyan K. Chattopadhyay

**Materials Chemistry and Physics 175 (2016) 22-32**

37. Raman imaging and stress quantification in self-assembled graphene oxide 'Latin Letters' R. Roy, N. Mazumder, G.S. Kumar, H. Mamgain, U.K. Ghorai, D. Sen and K. K. Chattopadhyay

**Journal of Raman Spectroscopy (2016) 47, 845-851.**

38. Mixed phase delafossite structured p type CuFeO<sub>2</sub>/CuO thin film on FTO coated glass and its Schottky diode characteristics

A Bera, K Deb, KK Chattopadhyay, R Thapa, B Saha

**Microelectronic Engineering 162, 23-26 (2016)**

39. TiO<sub>2</sub> Nanowires/Poly (Methyl Methacrylate) Based Hybrid Photodetector: Improved Light Detection, S Saha, A Mondal, B Choudhuri, T Goswami, MB Sarkar, KK Chattopadhyay,

**Journal of Nanoscience and Nanotechnology (2016), 16 (3), 2737-2741**

40. Methyl orange adsorption onto simple chemical route synthesized crystalline  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> nanoparticles: kinetic, equilibrium isotherm, and neural network modeling

A. Debnath, K. Deb, K.K. Chattopadhyay, B. Saha

**Desalination and Water Treatment (2016), 57 (29), 13549-13560**

41. Curvature aided efficient axial field emission from Carbon nanofiber-Reduced graphene oxide superstructures on Tungsten wire substrate, A. Jha, R. Roy, D. Sen and K. K. Chattopadhyay,

**Applied Surface Science (2016) 366, 448-454.**

- 42.Reduction Behavior of Agglomerated Iron Ore Nuggets by Devolatilisation of High Ash High Volatile Lignite Coal for Pig Iron Production  
ChanchanBiswas, MahuaGhoshChaudhuri, RajibDey  
**Ironmaking and Steelmaking:Processes, Products and Applications.** DOI: 10.1080/03019233.2016.1232910
- 43.Kinetic studies on the reduction of iron ore nuggets by devolatilization of lean-grade coal, ChanchalBiswas, Prithviraj Gupta, Arnab De, MahuaGhoshChaudhuri, and Rajib De  
**International Journal of Minerals, Metallurgy and Materials**, Volume 23, Number 12, December 2016, Page 1360, DOI: 10.1007/s12613-016-1359-0
- 44.Phase Evolution, Microscopic Analysis, Optical and Dielectric Property Evaluation of Co-doped BaSnO<sub>3</sub> by Mechanical Mix Assisted Solid State Sintering Method, Asima Adak (Maity), Soumya Mukherjee, MahuaGhoshChaudhuri and Siddhartha Mukherjee, **AIMS Materials Science**, Vol 3 (3), p- 1281 - 1293, Dio: 10.3934/matserci.2016.3.1281
45. Statistical optimisation parameter for lean grade self-reducing nuggets by surface response modelling to produce pig iron, C. Biswas, S. Samanta, A. Bhattacharyya, M. G. Chaudhuri & R. Dey, **Mineral Processing and Extractive Metallurgy**, ISSN: 0371-9553 (Print) 1743-2855 (Online), DOI 10.1080/03719553.2016.1204083, 2016
46. Study of reduction kinetics of briquettes of Hematite ore fines with boiler grade coal and coke dust in two different forms: Intermixing and multilayer, G. G. Roy, B. K. Sarkar, M. GhoshChauhduri, M. K. Mitra, R. Dey, **J. Inst. Eng. India Ser. D**, DOI 10.1007/s40033-016-0130-z
47. Superb hydroxyl radical mediated biocidal effect induced antibacterial activity of tuned ZnO/chitosan type II heterostructure under dark, SoumikPodder, SumanHalder, AnirbanRoychowdhury, Dipankar Das, **Chandan Kumar Ghosh, J. Nanoparticle Research** 18, 294 (2016).
48. Carbon doped ZnO thin film: unusual nonlinear variation in bandgap and electrical characteristic, DebabrataSarkar, **C.K. Ghosh** and K.K. Chattopadhyay, **Applied Surface Science** 418, 252 – 257, 2017.
49. Antibacterial mechanism of biogenic copper nanoparticles synthesized using Heliconiapsittacorum leaf extract, K. Roy, C.K. Sarkar, **C.K. Ghosh, Nanotechnology Reviews** 5, 529 – 536 (2016).
50. ROS mediated High Anti-Bacterial Efficacy of Strain Tolerant Layered Phase Pure Nano-Calcium Hydroxide, AniruddahSamanta, SoumikPodder, **Chandan Kumar Ghosh**, Manjima Bhattacharya, JitenGhosh, Awadesh Kumar Mallik, ArjunDey, Anoop Kumar Mukhopadhyay, **Journal of the Mechanical Behavior of Biomedical Materials**72, 110 – 128, (2017).
51. Enhanced Photoluminescence from Gold Nanoparticle Decorated Ployaniline Nanowire Bundles, AniruddhaSamanta, RupaliGangopadhyay, **Chandan Kumar Ghosh**, Mallar Roy, **RSC Adv.** 7, 27473 – 27479, (2017).
52. Degradation of toxic textile dyes and detection of hazardous Hg<sup>2+</sup> by low-cost bioengineered copper nanoparticles synthesized using Impatiens balsamina leaf extract, Kaushik Roy, **Chandan K. Ghosh**, Chandan K. Sarkar, **Materials Research Bulletin**, 94, 257 – 262,(2017).

#### 4. B. Papers Published in Conference Proceedings

1. En route to the conductivity bottleneck in p-type  $\text{CuCr}_{1-x}\text{M}_x\text{O}_{2-y}\text{S}_y$  (M= Li, Mg), P Mandal, N Mazumder, AJ Akhtar, R Roy, KK Chattopadhyay, **AIP Conference Proceedings** 1832 (1), 110054,(2017)
2. Facile synthesis of ZnPcnanocubes: An electron emitting material for field emission display devices, M.Samanta, U.K.Ghorai, M. Mukherjee, P.Howli, K.K.Chattopadhyay, **AIP Conference Proceedings** 1832 (1), 050032 (2017)
3. Novel kite-like ZnOnano-tetrapods for sustainable environmental applications, S Pal, S.Maiti, K.K.Chattopadhyay, **AIP Conference Proceedings** 1832 (1), 050039 (2017)
4. Three dimensional CuOnanoflakes on flexible carbon fabric for high performance supercapacitor, P Howli, S. Das, K.Panigrahi, M.Samanta, K.K.Chattopadhyay, **AIP Conference Proceedings** 1832 (1), 050030 (2017)
5. Temperature dependent electrical properties of polyaniline film grown on paper through aniline vapor polymerization, K. Deb, K.L.Bhowmik, A.Bera, K.K.Chattopadhyay, B.Saha, **AIP Conference Proceedings** 1731 (1), 110030 (2016)
6. Structural origination of charge transfer complex nanostructures: Excellent candidate for field emission, S. Pal, K.K.Chattopadhyay, **AIP Conference Proceedings** 1731 (1), 050102 (2016)
7. Studies on magnetic properties of chemically synthesized crystalline calcium ferrite nanoparticles, A.Debnath, A.Bera, K.K.Chattopadhyay, B.Saha, **AIP Conference Proceedings** 1731 (1), 050103 (2016)
8. Catalyst free VLS deposition of  $\text{Cu}_2\text{Se}_{1-x}$  film for cold cathode application and its theoretical verification, B. Das, S.Maity, K.K.Chattopadhyay, **AIP Conference Proceedings** 1728 (1), 020517 (2016)
9. Enhancement of thermal conductivity of transformer oil by exfoliated white graphenenanosheets, MM Bhunia, S. Das, P.Chattopadhyay, S. Das, K.K.Chattopadhyay  
Environment and Electrical Engineering (EEEIC), (2016) **IEEE 16th International Conference.**
10. Morphology induced photo-degradation study of low temperature, chemically derived ZnO/ $\text{SnO}_2$ heterostructure, S. Pal, S.Maiti, K.K.Chattopadhyay, **AIP Conference Proceedings** 1728 (1), 020403 (2016)

#### Book Chapter Written:

1. Size-Dependent Optical Properties of Nanoparticles Analyzed by Spectroscopic Ellipsometry, Kalyan Kumar Chattopadhyay and Nirmalya Sankar Das,  
*Handbook of Nanoparticles*, (Springer International publishing, Switzerland) (2016) p. 265-293, ISBN: 978-3-319-13188-7



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## MEDIA COMMUNICATION & CULTURE

Phone : + 91-33-2414-6352

Int. : 2457-2351

Director : Prof. Partha Pratim Basu

Jt. Director: Prof. Abhijit Roy

E-mail : dir.media@jadavpuruniversity.in

### 1. A. Courses Offered: (Name of the Course, Duration of Course, No of Students Enrolled)

1. UGC-approved Certificate Course on 'Radio Productions': 6 months; 30 students
2. PhD programme: 5 students

### 1. B. Number of Faculty Members:

Director: Prof. Partha Pratim Basu, Department of International Relations

Joint Director: Dr. Sujit Kumar Mandal, Department of Comparative Literature

No permanent faculty member; The 'Radio Productions' course is taught by 9 teachers from Jadavpur University and 17 from outside the University

### 2. A. Area of Research Activities: (Broad Areas)

- Media Studies, Communication Studies, Cultural Studies
- Indian Television, Television Studies
- International Communications, Development Communication
- Media and Convergence, Intermediality
- Media, Politics and Democracy
- Media Ethics
- Digital Media, Cybercultures
- Urban Studies
- Performance Studies, Oratures
- Pedagogic Histories and politics
- Children, Youth and Media
- Gender, Sports, Bodies and Sexuality
- Community Radio, Alternative Media Practices

### 2. B. Research Project: (Department/Individual, Name of the Project, Funding Agency):

**Prof. Nilanjana Gupta**, Principal Investigator

1. 'Madrasas in India': UGC-UPE-II
2. 'Acropolis: A Study of the concept of the Global City': UGC-UPE-II
3. 'Dance and Performance': UGC-UPE-II
4. 'Youth Radio Reporter', UNICEF

**Prof. Ipshita Chanda** (on lien), Principal Investigator

1. Project 'Interface' (how the newly set up industrial belt in Jharkhand has affected the ethnic cultural heritage of the place), UGC-UPE-II.



**Prof. Abhijit Roy**, Principal Investigator

1. 'New Media for Change: Multimedia Stories on Under-reported Issues': UGC-UPE-II

**Prof. Paromita Chakraborty**

1. Principal Investigator of the project "Mobilising Single Women in West Bengal" (Second Phase)—funded by AJWS and hosted by Sappho for Equality, September 2016 to August 2017.
2. Coordinator, 'Shakespeare in Bengal' project under Centre of Advanced Study, Dept of English.

**Prof. Dalia Chakraborty**, Co-Principal Investigator

1. 'Acropolis': UGC-UPE-II

**Dr. Sujit Kumar Mandal**, Principal Investigator

1. "Folk Performance" (Project Palagaan), UGC-UPE-II
2. "Translating Performance Text: In Search of a Methodology", UGC-CAS-III, Dept. of Comparative Literature, JU, 2016-2017
3. "Comparative Literature in India—Discipline, Departments and Centers: a Historiography", UGC-CAS-III, Dept. of Comparative Literature, JU, 2016-2017
4. Co-investigator: "Centering Borders, Border Crossings & Borderlands in Comparative Literary and Cultural Studies", UGC-CAS-III, Dept. of Comparative Literature, JU, 2016-2017
5. Co-investigator: "Project Dastangoi", UGC-CAS-III, JU, Dept. of Comparative Literature, 2016-2017

**Dr. Imankalyan Lahiri**, Principal Investigator

1. 'Education as a Social Security Measures in the Tea Gardens of North Bengal and North East India', UGC-UPE-II, University Grants Commission
2. Swangsiddha-A Project on Anti-Trafficking, UNICEF

**Parthasarathi Bhaumik**, Principal Investigator

1. 'Soundscapes of Kolkata': UGC-UPE-II

The School manages Jadavpur University's Community Radio: 90.8 RadioJU (Coordinator: Prof. Nilanjana Gupta, Member, Academic Committee, and former Director of the School) Launched on 14 April, 2008, 90.8 MHz Community RadioJU is the first of its kind in Eastern India. It provides an interactive platform for students, teachers, research scholars, staff and local people around JU to showcase their talent, creativity, innovations and community work. Programmes broadcast by the radio station are heard within a radius of 10 km around the University. Thematic focus: Education, Sports, Health & Hygiene, Traditional & Folk Song, Culture & Heritage, Music & Entertainment, Child Rights, Law, Drama on Social Issues, Disability Issues, Travel etc. The UGC-approved certificate course 'Radio Productions' offered by the School uses the resource and expertise of the Community Radio extensively for training students. The projects associated with 90.8 Community RadioJU are:

-'Youth Radio Reporter' (Funding agency: UNICEF)

-'Mathematics on Radio' (Funding agency: Dept. of Science & Technology, Govt. of India).

-Baseline Survey on 'Integration of Community Learning Programme in Skill Development' hosted by 'Anamika Roy Memorial Trust' and funded by Commonwealth Educational Media Centre for Asia (CEMCA)

**3. A. Invited Lectures, Delivered/Session Chaired (Name of the Teacher, Type of Participants, Name of the Seminar/Conference etc. Place, Duration):**

**Prof. Partha Pratim Basu**

1. Delivered the SYLFF lecture on 'Discourse Analysis' at Jadavpur University on 26 April, 2016.
2. Chaired two lectures delivered by Dr. Sumit Ray and Dr. Saurabh Dutta Chaudhury organised by School of International Relations and Strategic Studies, Jadavpur University on 25 July 2017.
3. Delivered a lecture on 'Comparative Method' at the seven-day workshop on 'Research Methods in International Relations' organised by School of International Relations and Strategic Studies, Jadavpur University and Jadavpur Association of International Relations, Kolkata at Jadavpur University on 8 August 2016.
4. Chaired a lecture delivered by Prof. Amiya Bagchi on 'From Neo-liberalism to Fascism: An Era of Intolerance' organised by Historical Materialists, on 15 September 2016 at Jadavpur University.
5. Chaired a session in the seminar on 'India and China in the Emerging Asian Domain: the Road Ahead' organised by Netaji Institute for Asian Studies, School Chinese Language, Kolkata and H P Biswas India China Cultural Study Centre, Jadavpur University, 23 September 2016.
6. Delivered an Extension Lecture in the Dept. of Political Science, Diamond Harbour University (for Women) on 'India-Pakistan Relations' on 24 November 2016.
7. Delivered four Extension Lectures on 'Political Theory' to the postgraduate students of Dept. of Political Science, Lady Brabourne College, Kolkata in December 2016.
8. Chaired a Special Session in the 'The BCIM Initiative and India's "Act East" Policy: A Reality Check' organised by the Kolkata Society for Asian Studies, Institute of Foreign Policy Studies University of Calcutta, Indian Council of World Affairs, New Delhi, at University of Calcutta, 12 January 2017.
9. Delivered four lectures in the PG Diploma Evening Course on Human Rights in January (11, 13, 17, 28) 2017.
10. Acted as Discussant during release of the ORF Report titled "*Indian Media's Perception of China: Analysis of Editorials*" at Observer Research Foundation, Kolkata, on 4 February 2017.
11. Delivered a lecture on 'Afghanistan' in the 'International Understanding for Human Unity' Course at Ramakrishna Mission, Gol Park, Kolkata on 7 February 2017.
12. Chaired a session in the Annual Conference of West Bengal Political Science Association at Rabindra Bharati University, Kolkata on 5 March 2017.
13. Chaired a session in National Seminar on 'Regionalism in International Relations' organised by CAS Programme, Dept. of International Relations, Jadavpur University, during 14-15 March 2017.
14. Chaired a session in the national seminar on 'Sustenance and Development in Tea Gardens of Northeast India and North Bengal' organised under UGC-UPE Programme of 'Cultural Resources and Social Science' Jadavpur University on 28 March 2017.

**Prof. Nilanjana Gupta**

1. Special Lecture on "City and Identity in the 21<sup>st</sup> Century" Kidderpore College, Kolkata, January 2017

2. Talk on 'Value of Education' organised by Departments of English, Arabic & Comparative Literature, University of Calicut. Calicut, Kerala
3. 'Islamic Propaganda Literature: Usage of Bangla', Sidho-Kanho-Birsha University, Purulia, February 5, 2017

**Prof. Abhijit Roy**

1. 'Television and Popular Culture' and 'Film and Television in the Era of Globalization', two lectures at the film appreciation course, Chalachitra Satabarsha Bhavan, Govt. of West Bengal, Calcutta, 3 August, 2016.
2. 'Television and the Indian State' and 'Television and Popular Culture in India', two lectures at the 105th Orientation programme organised by Human Resource Development Centre, Burdwan University. 7 September, 2016.
3. Chaired two sessions at the national seminar on 'Encountering World Cinema in India' organised by Department of Film Studies, Jadavpur University, 3-4 November, 2016.
4. Chaired a session at the International Seminar on 'Shifting Significations of Borders in Contemporary South Asia and the Americas' organised by the Centre for Studies in Latin American Literatures and Cultures & Centre of Advanced Study (CAS), Department of Comparative Literature, Jadavpur University, 19 January, 2017.
5. Presentation at a panel discussion on "From local cultures to a global culture", Suffragium: Annual departmental event of Department of Political Science, St. Xavier's College (Autonomous) Kolkata. 11 February, 2017.
6. 'Studying Radio: Basic Concepts', Lecture at the UGC-sponsored 6-month certificate course on 'Radio Production', School of Media, Communication and Culture, Jadavpur University, 17 February, 2017.
7. Chaired a session at the National Seminar on 'Sustenance and Development in the Tea Gardens of Northeast India and North Bengal' organised by the project 'A Study of Education as Social Security Measure in the Tea Gardens of Northeast India and North Bengal' under UGC-UPE (Phase II) programme of Jadavpur University. 26 March, 2017.

**Prof. Paromita Chakraborty**

1. Delivered talk at a roundtable at Stratford, organised by the Shakespeare Institute at the Other Place on 3<sup>rd</sup> May, 2016
2. Appeared as gender studies expert on "ghare baair" —a Doordarshan programme on women's issues.
3. Chaired session on "Challenging Binaries: Gender and Rights" at the conference on "Women speak the Nation: Identities and Intersectionalities" organised by the School of Women's Studies, JU 8-9<sup>th</sup> April 2016.
4. Delivered talk on Women and Media at the Film Appreciation Course organised by the Chalachitra Satabarsha Bhavan, 21st July, 2017.
5. Delivered talk on Marriage and Singleness at the National Consultation on "A critical Examination of Sexuality Discourse in India" organised by Nirantar at the India Habitat Centre, New Delhi, 16<sup>th</sup>-17<sup>th</sup> June, 2016.

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6. Delivered talk on “women in Community mental health” at the National Conclave for Community Mental Health organised by Anjali, in Kolkata, 15<sup>th</sup>-16<sup>th</sup> July, 2016.
7. Chaired session on in “Nexus: Anglo Indian Literature and Anglo Indian life”, a workshop organised by the School of Women’s Studies, JU, 18-19<sup>th</sup> January, 2017, in JU, Kolkata.
8. Chaired a plenary session in the conference on “Imaging the differently abled: Reading and Translating the Indian short story”, organised by the Dept of English, CAS, JU, 18-20<sup>th</sup> January, 2017.
9. Chaired a session at the students’ conference on “Cross Cultural Encounters and Negotiations: Place, Space, Identity”, organised by the Dept of English, CAS, JU, 16-17<sup>th</sup> February, 2017
10. Delivered a talk on “Singleness and Marriage” at the national Research conclave on early marriage organised by Partners in Law Development and AJWS at Zorba the Budha, New Delhi, between 27<sup>th</sup> Feb and March 1<sup>st</sup>, 2017.
11. Special lecture on girls’ education for 8<sup>th</sup> March (2017), International Women’s Day celebrations organised by the Indian Statistical Institute, Calcutta.
12. Delivered talk on sexual harassment in the workplace at the Gender sensitization programme organised by the National University of Juridical Sciences for IRCTS employees on 3<sup>rd</sup> march, 2017.
13. Delivered talk on “Singleness as queer practice” at the Sexuality Academy (22-26<sup>th</sup> March 2017— a residential workshop) organised by Sappho for Equality in Kolkata on 23<sup>rd</sup> March, 2017.

#### **Prof. Dalia Chakraborty**

1. Lecture on ‘Religion and Social Stratification’ in One-year PG Diploma Course on ‘Society, Religion and Social Work’, at Centre for the Study of Religion and Society, Jadavpur University, on 24 March, 2017

#### **Dr. Amites Mukhopadhyay**

1. Delivered invited lecture on “Human Rights: A Sociological Perspective and Human Rights and Justice: Reflecting on the Social” on 26 November, 2016 in UGC Refresher Course on *Human Rights and Social Justice* organised by Department of Law, University of Calcutta, 15 November-5 December 2016.
2. Delivered invited lecture on “Qualitative Research Methods” at the UGC-HRDC sponsored short term Research Methodology programme at the Department of Economics, Jadavpur University during 9<sup>th</sup>-14<sup>th</sup> January 2017.
3. Delivered invited lecture on “Inclusive City and Sustainable Development” at UGC Sponsored Refresher Course on Built Environment and Sustainable Technologies organised by department of Architecture at jadavpur University on 4<sup>th</sup> January 2017.

#### **Dr. Imankalyan Lahiri**

1. Invited lectures for the M.A. programme in ‘International Studies’ at Symbiosis School of International Studies (SSIS), Pune, 13<sup>th</sup> and 14<sup>th</sup> of October, 2016.
2. Lectures for the students of ‘Post Graduate Diploma in Human Rights’ and ‘Post Graduate Diploma in International Studies’, Department of Civics and Politics, University of Mumbai, 8<sup>th</sup> and 9<sup>th</sup> October, 2016.

3. Lectures on 'Developments in India-Nepal and India Bhutan Relations', 27<sup>th</sup> August, 2016, 29<sup>th</sup> August, 2016, 11<sup>th</sup> July, 2016, 16<sup>th</sup> July, 2016, SSB, Ministry of Home Affairs, Government of India.

**3. B. Seminar/Workshop/Conference/Symposium Attended: (Name of the Teacher, Name of the Paper Presented, if any, Name of the Seminar, Place, Duration):**

**Prof. Partha Pratim Basu**

1. Presented a paper titled 'India and the SAARC' at a national seminar on 'India and Her Neighbours: History and the Present Scenario' organised by Dept. of Political Science, PN Das College, Palta, N 24 Parganas, 20 September 2016.
2. Presented a paper titled 'Politics of Water-sharing: Some South Asian Cases' in the seminar on 'Contemporary South Asia' organised by School of International Relations and Strategic Studies, Jadavpur University and Maulana Abul Kalam Azad Institute of Asian Studies (MAKAIAS), Kolkata, 21 March 2017.

**Prof. Nilanjana Gupta**

1. Invited Speaker at Colloquium on "The Flux in India's Higher Education System" organised by Indian Association of Women's Studies, Chennai, January 2017
2. Keynote Speaker at Seminar on "Child Lore & Identity" at Mizoram University (with Sahitya Akademi), November 2016
3. Lecture at 'Interfaith Peace Conference' organised by Al Mahad Ul Islami, Hyderabad, July 28, 2016

**Prof. Abhijit Roy**

1. 'Indo-Pak Mediascape and the Curious Case of Zindagi TV', paper presented at the international conference on 'Cinema and Transnationalism in Pakistan and South Asia: Regional Histories', organised by 'South Asian Regional Media Scholars Network'. Lahore University of Management Sciences, Lahore, Pakistan (presented through Skype). 1 September, 2016.

**Prof. Paromita Chakraborty**

1. Delivered paper on "Taming of the Bard: Domesticating farce in Srimati Bhayankari" in the Indian Shakespeares on Screen conference organised by Royal Holloway college, at Asia House, between 27<sup>th</sup>-30<sup>th</sup> April, 2016
2. Delivered paper entitled 'Where be your gibes now, your gambols, your songs?': Shakespeare's ghostly clowns" in a panel on "Going Hence" coordinated by Prof Sukanta Chaudhuri in the international conference on "Shakespeare's Ashes", organised jointly by The Shakespeare Society of India, in association with Ashoka University and the British Council, New Delhi. New Delhi, 21st and 22nd of October, 2016
3. Presented a paper on the "Shakespeare in Bengal" archival project under CAS at the International Workshop on Shakespeare Archiving organised by the School of Cultural Texts and Records, JU, on 29<sup>th</sup> November, 2016.
4. Delivered a paper entitled "Challenging Marriage: Singleness as a queer life practice" at the XVth Indian Association for Women's Studies conference ("Women in a Changing World: Restructured Inequalities, Countercurrents and Sites of Resistance".) under the subtheme "Interrogating and expanding Feminist questions on sexuality and gender", Chennai, on 22<sup>nd</sup> January, 2017.



5. Delivered keynote presentation entitled “Shakespeare beyond Bollywood: Two Lear films and Bengali Modernity” at the international seminar organised by the Armenian Shakespeare Association in Yerevan between 1-3 October, 2016.

**Prof. Dalia Chakraborty**

1. Keynote Speaker at two-day seminar on ‘Fashion, Age and Society: The Role of Media in the Constitution of Identities’, 3-4 February, 2017 at The Bhawanipore Education Society College, Kolkata.

**Dr. Amites Mukhopadhyay**

1. Presented paper on “Methodological issues in the writings of M.N. Srinivas, N.K. Bose and Surajit Sinha” at the workshop on *Indian Sociological Tradition* organised by department of Sociology, North Bengal University, 28-29 March, 2017.
2. Delivered invited address on “Human Rights: Some Opening Thoughts” at the UGC sponsored national seminar on *Human Rights: Challenges and Perspectives in Indian Context*.

**Dr. Imankalyan Lahiri**

1. “Language Does not Change at the Border, but Politics Does”, paper presented at the International Conference on Borders and Border Studies, , South Asian University, New Delhi, 6<sup>th</sup> -7<sup>th</sup> March, 2017.

**Srabani Roy, Programme Coordinator of 90.8 Radio JU, conducted the following workshops:**

Type of Participants	Workshop Name	Place	Date/Time
1) Member of local NGO & University	Community Radio Awareness Workshop	Guwahati University, Guwahati, Assam	December 21-22, 2016 10 am – 5 pm
2) Women members of Radio Namaskar, Konark, Odisha.	Content Creation Workshop of SFWHN Project	Radio Namaskar Konark, Odisha.	27th Jan -2nd Feb 2017 10 am – 5 pm
3) Members of Radio Jnantaranga, Guwahati, Assam	Capacity Building & Content Creation Workshop for Radio Mathematics Project	Radio Jnantaranga Dispur, Assam	14 <sup>th</sup> -20 <sup>th</sup> March, 2017

**Srabani Roy, Programme Coordinator of 90.8 RadioJU, and Pradip Bhandari conducted the following Workshops:**

Workshop Name	Place	Date/Time	Subject
1) Capacity Building Workshop	Guwahati Assam	January 3-8, 10am – 5 pm	Integration of CLP in Skill Development
2) RPL Awareness Workshop	Kolkata	29 <sup>th</sup> March 10am – 2 pm	RPL in Automobile Skill



**3. C. Seminar/Workshop/Conference/Symposium Organised: (Name of the Teacher, Name of the Paper Presented, if any, Name of the Seminar, Place, Duration):**

1. A two-week course on 'Contemporary Cultural Studies' under the MHRD Scheme of Global Initiative of Academic Networks (GIAN). The Teaching Faculty was Prof. John Hutnyk, National Chiao Tung University (Hsinchu City, Taiwan) and RMIT University (Melbourne, Australia). A total number of 35 students, researchers and college/university teachers participated in the course from across India. Coordinator and Host Faculty: Prof. Amites Mukhopadhyay (Department of Sociology, JU); Host Faculty: Prof. Abhijit Roy (Department of Film Studies, JU). Jadavpur University, 5-17 December, 2016.
2. 'Media and Nation: A View from Kashmir', fourth Sandipta Chatterjee Memorial Lecture delivered by Dr. Shujaat Bukhari, Editor-in-Chief: Rising Kashmir, Buland Kashmir and Sangarmal. Chairperson: Shri Samik Bandyopadhyay, Tagore National Fellow, School of Arts and Aesthetics, JNU. This annual memorial lecture is supported by 'Sandipta Chatterjee Memorial Fund', an endowment to the School from Ishani Datta Ray and other friends of late Sandipta Chatterjee. For details, please log on to <http://www.medianest.org.in>.  
সমাজ, সংবাদ, সংলাপ (তৃতীয় সন্দীপ্তা চট্টোপাধ্যায় স্মারক বক্তৃতা), অধ্যাপক সুকান্ত চৌধুরী, published by the School, was launched on the occasion. Another publication launched was *বিপ্লব সময়: বর্ণবাদ, জাতীয়তাবাদ, বাকস্বাধীনতা ও আজকের ভারত*, সম্পাদনা: শর্মিষ্ঠা দত্তগুপ্ত ও তৃণানিলীনা বন্দ্যোপাধ্যায়।  
The event was jointly organised by the School and Sandipta Chatterjee Memorial Committee, in collaboration with Ebong Alap, Kolkata. Jadavpur University, 13 January, 2017, 1-30 pm
3. 'Memory-Work and the Grenada Revolution: A Love Letter from the Humanities', a talk on method towards an Interdisciplinary Public Humanities by Shalini Puri, Associate Professor of English, University of Pittsburgh, organised in collaboration with Department of Comparative Literature and Department of English, Jadavpur University. 18 November 2016, 3 pm
4. Project 'Youth Radio Reporter' has conducted 8 workshops in total for children/youth from particularly the underprivileged sections of the society. The focus of the workshops ranged from skills in radio programming and filmmaking to generation of awareness on 'Respecting Diversity' and 'Safety & Security'. Out of these 8 workshops, 2 were held in Malda and Purulia. 4 videos were made under professional supervision by the youth participants of the project on various social issues.
5. Project 'Interface' organised a workshop and performance entitled "Romeo and Juliet", along with Department of English, Jadavpur University and London based theatre group 'Mukul and the Ghetto Tigers'.
6. 90.8 Radio JU organised a 3-day 'Capacity Building Workshop'. Ashutosh College and Jadavpur University, December 5-7, 2016.

**Dr. Sujit Kumar Mandal**

1. Organised a Seminar and Performance on "The Tradition of Kirtana in Bengal", on 11—13 January 2017 under UGC-UPE-II, CR & SS, at Vivekananda Hall, Subarna Jayanti Bhavan, JU
2. Organised a one-week Workshop on DASTANGOI—Literature and Storytelling based on the Life of Lalan Fakir conducted by Dastango Ankit Chadha, held on 30 January 2017 to 5 February 2017 at Subarna Jayanti Bhavan, Jadavpur University.

3. Organised a course on *Oral History and the Art of Listening* (166025F02), under MHRD Scheme on Global Initiative of Academic Networks (GIAN) from 9–16 November, 2016, in Budhhadeva Bose Sabhaghar, which was attended by 26 external participants and 26 participants from Jadavpur University. The course was taught by one of the most internationally renowned experts in the field of orality—Professor Alessandro Portelli, scholar of literary studies, whose contribution to the fields of folklore, culture and oral history has been widely acclaimed as decisive.

**Dr. Imankalyan Lahiri**

1. Organised a National Seminar on ‘India in the 21<sup>st</sup> Century: Governance and Foreign Policy Imperatives’, 19<sup>th</sup> and 20<sup>th</sup> December, 2016 organised by JAIR and Department of Civics and Politics, Mumbai University, supported by Indian Council of World Affairs (ICWA), New Delhi

**3. E. Orientation Courses/ Refresher Courses Organised: (Name of the Teachers, Title of the Course, if any, Duration, Place)**

**Prof. Partha Pratim Basu**

Acted as Coordinator of a seven-day workshop on ‘Research Methods in International Relations’ organised by School of International Relations and Strategic Studies, Jadavpur University and Jadavpur Association of International Relations, Kolkata during 8-17 August 2016 at Jadavpur University.

**4. A. Books/ Monographs etc. Published (Name of the Teacher, Name of the Book, Name of the Publisher):**

**Dr. Imankalyan Lahiri**

1. *Peace, Development and Community: The Look East Imagination of India with Special Reference to North East India*, MAKAIS and Knowledge World Publishers Private Limited, 2017.

**4. B. Articles Published in Journals (Name of the Teacher, Name of the Articles, Name of the Journal, Date of Publication, Volume):**

**Prof. Partha Pratim Basu**

1. ‘Federalism and Foreign Policy in India: Experiences of UPA and NDA II Regimes’, *India Quarterly*, 72 (3), 2016.

**Prof. Abhijit Roy**

1. ‘Ek asubho jatrāpala’, translation of ‘An Ominous Operetta’, article by Alok Rai, in *Bipanna samay: Barnabad, jatiyotabad, bakswadhinota o ajker bharat* eds. Sarmistha Dutta Gupta and Trina Nileena Banerjee. Ebong Alap and Ebong Mushaira, December 2016.

**Prof. Paromita Chakraborty**

1. “Pleasurable Errors and Erroneous Pleasures: Renegotiating Shakespearean Romance in Three Indian Films” in Bi-qui Beatrice Lei, Judy CelineIck and Poonam Trivedi eds. *Shakespeare’s Asian Journeys: Critical Encounters, Cultural Geographies and the Politics of Travel*, New York: Routledge, 2017, pp.219-238

**Dr. Sujit Kumar Mandal**

1. Translation: “Chhoto Patrika” (Ezra Pound’s “Small Magazines”) in *Little Magazine: Parba-Parbantār* ed. Barendu Mandal, Dhaka: Kathaparakash, Jan 2017.
2. Translation: “Little Magazin-er Dayitwa” (Lionel Trilling’s “The Function of Little Magazine”) in *Little Magazine: Parba-Parbantār* ed. Barendu Mandal, Dhaka: Kathaparakash, Jan 2017.

**Indrani Bhattacharya** (Project Fellow of the project 'Madrasas in India')

'Islamic Propaganda Literature : a Look into Usage of Bangla' in *Bengali Society, Language and Literature: Cultural Transmission Among Neighbours* ed. Naba Gopal Roy, Cognition Publication, 2017. ISBN - 9788193287170

## 5. Collaborative Programmes

1. Projects under the School have been funded by:  
UPE scheme of UGC; UNICEF; Department of Science and Technology (Govt. Of India); Commonwealth Educational Media Centre for Asia (CEMCA), Ministry of Human Resource Development (Govt. Of India).
2. A two-week course on 'Contemporary Cultural Studies' under the MHRD Scheme of Global Initiative of Academic Networks (GIAN). The Teaching Faculty was Prof. John Hutnyk, National Chiao Tung University (Hsinchu City, Taiwan) and RMIT University (Melbourne, Australia). A total number of 35 students, researchers and college/university teachers participated in the course from across India. Coordinator and Host Faculty: Prof. Amites Mukhopadhyay (Department of Sociology, JU); Host Faculty: Prof. Abhijit Roy (Department of Film Studies, JU). Jadavpur University, 5-17 December, 2016.
3. 'Media and Nation: A View from Kashmir', fourth Sandipta Chatterjee Memorial Lecture delivered by Dr. Shujaat Bukhari, Editor-in- Chief: Rising Kashmir, Buland Kashmir and Sangarmal. Chairperson: Shri Samik Bandyopadhyay, Tagore National Fellow, School of Arts and Aesthetics, JNU. This annual memorial lecture is supported by 'Sandipta Chatterjee Memorial Fund', an endowment to the School from Ishani Datta Ray and other friends of late Sandipta Chatterjee. For details, please log on to <http://www.medianest.org.in>.  
সমাজ, সংবাদ, সংলাপ (তৃতীয় সন্দীপ্তা চট্টোপাধ্যায় স্মারক বক্তৃতা), অধ্যাপক সুকান্ত চৌধুরী, published by the School, was launched on the occasion. Another publication launched was *বিপন্ন সময়: বর্ণবাদ, জাতীয়তাবাদ, বাকস্বাধীনতা ও আজকের ভারত*, সম্পাদনা: শর্মিষ্ঠা দত্তগুপ্ত ও তৃণালিনী বন্দ্যোপাধ্যায়।  
The event was jointly organised by the School and Sandipta Chatterjee Memorial Committee, in collaboration with Ebong Alap, Kolkata. Jadavpur University, 13 January, 2017, 1-30 pm
4. 'Memory-Work and the Grenada Revolution: A Love Letter from the Humanities', a talk on method towards an Interdisciplinary Public Humanities by Shalini Puri, Associate Professor of English, University of Pittsburgh, organised in collaboration with Department of Comparative Literature and Department of English, Jadavpur University. 18 November 2016, 3 pm
5. Project 'Youth Radio Reporter' has conducted 8 workshops in total for children/youth from particularly the underprivileged sections of the society. The focus of the workshops ranged from skills in radio programming and filmmaking to generation of awareness on 'Respecting Diversity' and 'Safety & Security'. Out of these 8 workshops, 2 were held in Malda and Purulia. 4 videos were made under professional supervision by the youth participants of the project on various social issues.
6. Project 'Interface' organised a workshop and performance entitled "Romeo and Juliet", along with Department of English, Jadavpur University and London based theatre group 'Mukul and the Ghetto Tigers'.
7. 90.8 Radio JU organised a 3-day 'Capacity Building Workshop'. Ashutosh College and Jadavpur University, December 5-7, 2016.

8. Baseline Survey on 'Integration of Community Learning Programme in Skill Development' hosted by 'Anamika Roy Memorial Trust' and funded by Commonwealth Educational Media Centre for Asia (CEMCA)
9. Srabani Roy, Programme Coordinator of 90.8 RadioJU, conducted workshops for Guwahati University, Radio Namaskar (Konark, Orissa) and Radio Jnantaranga (Dispur, Assam), Asutosh College, Kolkata.
10. Project Performance collaborated with Department of English, Jadavpur University, for a workshop leading to a performance of London based theatre group "Mukul and Ghetto Tigers" with students from Jadavpur University. The performance was entitled "Romeo and Juliet."
11. Project Interface has been working with public domain platforms such as Sahapedia (<https://www.sahapedia.org/seraikela-chhau-hansa>) for awareness regarding Seraikella Chhau.
12. Project Interface is also working in collaboration with Government Chhau Centre to collect exhibits for display in State Museum Ranchi and Dr. Ram Dayal Munda Tribal Welfare Research Institute, Ranchi. Revival of rare compositions (Jhansi Ki Rani, Bandira Swapna) is also under progress in collaboration with Government Chhau Centre, Seraikella, Jharkhand.

## **6. Major Achievements:**

1. A two-week course on 'Contemporary Cultural Studies' under the MHRD Scheme of Global Initiative of Academic Networks (GIAN) was organized by the School. The Teaching Faculty was Prof. John Hutnyk, National Chiao Tung University (Hsinchu City, Taiwan) and RMIT University (Melbourne, Australia). A total number of 35 students, researchers and college/university teachers participated in the course from across India. Coordinator and Host Faculty: Prof. Amites Mukhopadhyay (Department of Sociology, JU); Host Faculty: Prof. Abhijit Roy (Department of Film Studies, JU). Jadavpur University, 5-17 December, 2016
2. সমাজ, সংবাদ, সংলাপ (তৃতীয় সন্দীপ্তা চট্টোপাধ্যায় স্মারক বক্তৃতা), অধ্যাপক সুকান্ত চৌধুরী, was published by the School on 13 January, 2017.
3. 4 videos were made under professional supervision on various social issues by the youth participants of the project 'Youth Radio Reporter'.
4. Project Interface collected about 114 videos and 267 photographs for the archive on ethnic cultural heritage of Jharkhand.
5. Project 'Madrasas in India' conducted field surveys in Lucknow (twice), Hyderabad, Calicut, Assam, Jharkhand, and collected extensive data on Madrasa education in India. The project found a wide range of resources on experiments in the field of Islamic education, unique history of Arabic learning and the oldest Shia madrasas in the country.
6. Prof. Paromita Chakraborty was selected Visiting Fellow at the University of Birmingham (Indian short term fellowship), 25<sup>th</sup> April-25<sup>th</sup> May, 2016.
7. Dr. Sujit Kumar Mandal organised a course on *Oral History and the Art of Listening*, under MHRD Scheme on Global Initiative of Academic Networks (GIAN), which was attended by 26 external participants and 26 participants from Jadavpur University. The course was taught by one of the most internationally renowned experts in the field of orality—Professor Alessandro Portelli, scholar of literary studies, whose contribution to the fields of folklore, culture and oral history has been widely acclaimed as decisive. Jadavpur University, 9-16 November, 2016.

8. Oxford bookstore Calcutta in collaboration with Cambridge University Press launched Prof. Amites Mukhopadhyay's book *Living with Disasters: Communities and Development in the Indian Sundarbans* published in February 2016 by Cambridge University Press. A panel, consisting of Prof. Suranjan Das, Vice-Chancellor, JU, Prof Ranabir Samaddar, Professor, Contemporary Studies on Forced Migration, Calcutta Research Group, and Prof. Roma Chatterji from Department of Sociology, Delhi School of Economics, was organised to reflect on the book. The event was well attended by academics, activists, scholars. Oxford Bookstore in Kolkata, 6<sup>th</sup> April, 2016.

### **MOBILE COMPUTING & COMMUNICATION**

Phone : + 91-33-2335-6122  
Director. : Dr. Arpita Sarkar  
E-mail : dir.mobilecomputing@jadavpuruniversity.in

- 1. A. Courses Offered:** M. Tech in Distributed and Mobile Computing  
Duration: 2 years  
Intake: 15

**B. Number of Faculty Members :** 03 (02 – Permanent, 01 – Contractual)

**2. A. Area of Research Activities :**

Distributed and Parallel Computing, Wireless Sensor Networks, Social Network Analysis, Wireless and Mobile Computing, Computation Offloading, Smart Health care, High Performance Computing, Internet of Things, Big Data and Cloud Computing

**B. Major Research Project:**

1. "Remote Health: A Framework for Health care Services using Mobile and Sensor-Cloud Technologies" Funded by Media Lab Asia, India. — Prof. Nandini Mukherjee
2. "Developing localized algorithms in pervasive computing environment", Funded by DST-PURSE, Phase-II. — Smt. Punyasha Chatterjee
3. "Designing a Framework for Efficient Computation Offloading", **Funded by** "Mobile Computing and Innovative Applications" under University with Potential for Excellence (UPE) - Phase II, **Sanctioned amount:** 10 lakh (Rs.10,00,000) approx. **Period:** July 2015-March 2018 – Dr. Chandreyee Chowdhury
4. **Title:** Environmental Monitoring: Testbed of Mixed Wireless Sensor Networks, Funding agency: Department of Science and Technology, Promotion of University Research and Scientific Excellence (DST, PURSE Phase-II), Govt. of India, Period: 4 years w.e.f. 2015, Role: One of the investigators – Dr. Sarbani Roy



5. **Title:** Performance based Resource Management and Load balancing in Cloud Environment Funding agency: Mobile Computing and Innovative Applications under University with Potential for Excellence (UPE) - Phase II, Jadavpur University, Period: 2015-2018. Role: Dr. Sarbani Roy, Principal Investigator.

**3. A. Invited Lectures Delivered/Sessions Chaired :**

1. Delivered a Lecture on “Towards Cloud Federation”, a One week workshop on Practical Perspective towards Big Data in Cloud (PPBDC 2016), Department of IT, JU, 11th July 2016. - Dr. Sarbani Roy
2. Delivered a Lecture on 5 days Faculty Development Program on Internet of Things, sponsored by TEQIP-II and organized by MCKVIE, 16th August 2016.- Dr. Sarbani Roy
3. Delivered a Lecture on “Introduction to IOT and Cloud Computing” in Two weeks workshop on Internet of Things and Data Science Jointly Organized by Jadavpur University and University of Calcutta Under PROJECT - “REMOTE- HEALTH” funded by ITRA, Media Lab Asia, 29th August 2016.- Dr. Sarbani Roy
4. Delivered a lecture in the one day seminar on “Recent Trends in Intelligent Computing” at Supreme Knowledge Foundation Group of Institutions, Mankundu, Hooghly, on 10th September 2016.- Dr. Sarbani Roy
5. Delivered a lecture in one-day seminar on cloud computing and sensor networks at Techno India, W. B., on 13th September 2016. - Dr. Sarbani Roy
6. Delivered a lecture in one day Seminar organized by Computer Science Department, Bethune College, on 22nd of February, 2017.- Dr. Sarbani Roy
7. Delivered a lecture in a Seminar on Image Processing and Advanced Computing at MAKAUT, W. B. Sponsored by TEQIP II and IEEE Kolkata Section, on 16th March 2017. - Dr. Sarbani Roy
8. Invited Talk on “Cloud Computing Security: threats and risks”, TEQIP II Programme College of Textile Engineering, Bahrapur, October 21 - 22, 2016 – Prof. Sarmistha Neogy
9. Invited Talk on “Security concerns of big data”, TEQIP II Short Term Course on “Advanced Wireless Sensor Network” IEST, Shibpur, 26th - 29th September 2016 – Prof. Sarmistha Neogy
10. Invited Talk on “Cloud Computing Security: An Overview”, Faculty Development Programme, Haldia Institute of Technology, August 1 – 5, 2016 – Prof. Sarmistha Neogy
11. Invited Talk on “Securing Big Data: Challenges and Solutions”, Workshop on Practical Perspectives towards Big Data in Cloud, Dept. of Information Technology, Jadavpur University, West Bengal, July 14, 2016 – Prof. Sarmistha Neogy
12. Invited Talk on “Security Concerns in Wireless Mobile Network”, Maulana Abul Kalam Azad University of Technology, West Bengal, May 09, 2016 – Prof. Sarmistha Neogy
13. Delivered a lecture in one-day seminar on cloud computing and sensor networks on 13<sup>th</sup> September 2016 at Techno India, W. B. — Dr. Chandreyee Chowdhury
14. Delivered a lecture in a Seminar on Image Processing and Advanced Computing on 16th March 2017 at MAKAUT, W. B. sponsored by TEQIP II and IEEE Kolkata Section.— Dr. Chandreyee Chowdhury
15. Delivered a lecture in a 3-day 3-Day Workshop on LATEX on 20th March 2017 at MAKAUT, W. B. Sponsored by TEQIP II. — Dr. Chandreyee Chowdhury



**3. B. Seminar/ Workshop/ Conference/Symposium Attended :**

1. Presented two papers at IEEE ANTS 2016 held in IISC, Bangalore on 06-09 November, 2016. — Dr. Chandreyee Chowdhury
2. Attended GIAN course on “Digital Topology and Geometry in Medical Imaging: Theory and Applications” held from 9th Jan to 14th Jan, 2017 – Dr. Chandreyee Chowdhury
3. Presented a paper entitled “Environment Monitoring in Smart Cities Using Virtual Sensors” in IEEE 4th International Conference on Future Internet of Things and Cloud (FiCloud), Vienna, 22<sup>nd</sup> - 24<sup>th</sup> August 2016. — Prof. Nandini Mukherjee
4. Presented a paper entitled “On uncertainty determination in eHealth sensors” in IEEE Sensors Applications Symposium (SAS), Glassboro, NJ, 13<sup>th</sup> - 15<sup>th</sup> March 2017. — Prof. Nandini Mukherjee

**3. C. Seminar/ Workshop/ Conference/Symposium Organized:**

1. Workshop on IoT and Data Mining, Organized by Department of Computer Science & Engineering, Jadavpur University, Sponsored by TEQIP-II – Dr. Sarbani Roy
2. 2-weeks workshop on “Internet of Things and Data Science” jointly with Department of Computer Science and Engineering, University of Calcutta from 29<sup>th</sup> August 2016 to 10<sup>th</sup> September 2016. — Prof. Nandini Mukherjee

**3. D. Orientation Courses/ Refresher Courses Attended :**

1. Attended in 62<sup>nd</sup> Orientation programme, organised by UGC-HRDC, JU during 29/8/16-27/09/16 – Smt. Punyasha Chatterjee

**3. E. Orientation Courses/ Refresher Courses Organized:**

1. Co-ordinated and acted as a Resource Person in 62<sup>nd</sup> Orientation programme, organised by UGC-HRDC, JU during 29/8/16-27/09/16 – Smt. Punyasha Chatterjee

**4. B. Articles Published in Journals / Book Chapters :**

1. Punyasha Chatterjee, Sasthi C. Ghosh, Nabanita Das, “Load Balanced Coverage with Graded Node Deployment in Wireless Sensor Networks”, IEEE Transactions on Multi-Scale Computing Systems 2017, Volume: 3, Issue: 2, Page(s): 100 – 112, Date of Publication - 22 February, 2017
2. Tanmoy Maitra, Sarbani Roy, A comparative study on popular MAC protocols for mixed Wireless Sensor Networks: From implementation viewpoint, Computer Science Review, Elsevier, Volume 22, pp. 107-134, November 2016.
3. Zeenat Rehena, Sarbani Roy, Nandini Mukherjee, Multi-criteria Routing in a Partitioned Wireless Sensor Network, Wireless Personal Communications, Springer, Volume 94, Issue 4, pp. 3415-3449, October 2016.
4. Paramita Dey, Maitreyee Ganguly, Sarbani Roy, Network centrality based team formation: A case study on T-20 cricket, Applied Computing and Informatics, December 2016.
5. S. Roy, **C. Chowdhury** (2017) Integration of Internet of Everything (IoE) with Cloud, chapter for the Book “Beyond the Internet of Things: Everything Interconnected”, Springer, 2017, pp. 199-222.
6. J. Dutta, F. Gazi, S. Roy, **C. Chowdhury** (2016) AirSense: Opportunistic Crowd-Sensing based Air Quality monitoring System for Smart City, in IEEE proceedings of IEEE Sensors 2016.
7. Khatua, Sunirmal, Preetam Kumar Sur, Rajib Kumar Das, and **Nandini Mukherjee**. “Heuristic-based resource reservation strategies for public cloud.” IEEE Transactions on Cloud Computing 4, no. 4 (2016): 392-401.

8. Mistry Sujoy, Dibyanshu Jaiswal, Arijit Mukherjee, and **Nandini Mukherjee**. "P2P Based Service Provisioning on Distributed Resources." *International Journal of Next-Generation Computing* 7, no. 3 (2016).
9. Rehana Zeenat, Sarbani Roy, and **Nandini Mukherjee**. "Multi criteria Routing in a Partitioned Wireless Sensor Network." *Wireless Personal Communications* 94, no. 4 (2017): 3415 3449.

**4. C. Articles Published in International Conferences:**

1. Ria Das and Punyasha Chatterjee, "Securing Data Transfer in IoT Employing an Integrated Approach of Cryptography & Steganography", *International Conference on High Performance Compilation, Computing and Communications (HP3C-2017)*, Kuala Lumpur, Malaysia, March 22-24, 2017, ACM proceedings, pp. 17-22,
2. Suparna Biswas, Jayita Saha, Tanumoy Nag, Chandreyee Chowdhury, Sarmistha Neogy, "A Novel Cluster Head Selection Algorithm for Energy-Efficient Routing in Wireless Sensor Network", *IEEEXplore Proceedings of 2016 IEEE 6th International Conference on Advanced Computing*, pp. 588 – 593
3. Soumita Sen, Chandreyee Chowdhury, Sarmistha Neogy, "Design of Cluster-Chain based WSN for Energy Efficiency", *IEEEXplore Proceedings of International Conference on Applied and Theoretical Computing and Communication Technology (iCATccT-2016)*, Bengaluru, India, 21-23 July, 2016, pp. 148-152
4. Atreyee Datta, Chandreyee Chowdhury, Sarmistha Neogy, "Ant-AODV-VANET: A Bio-Inspired Routing Protocol for VANET", accepted for presentation and publication at the Fourth International Conference on Emerging Research in Computing, Information, Communication and Applications ERCICA-2016, Bengaluru, India, 29-30 July, 2016
5. Anindita Sarkar Mondal, Samiran Chattopadhyay, Sarmistha Neogy, Nandini Mukherjee, "Object based schema oriented data storage system for supporting heterogeneous data", *IEEEXplore 2016 International Conference on Advances in Computing, Communications and Informatics (ICACCI)*, Jaipur India, September 2016, pp. 1025 – 1032
6. Arindam Giri, Subrata Dutta, Sarmistha Neogy, "Enabling Agricultural Automation to Optimize Utilization of Water, Fertilizer and Insecticides by implementing Internet of Things (IoT)", *2016 International Conference on Information Technology (InCITE) – The Next Generation IT Summit*, India, 2016, pp. 125 – 131
7. S. Mondal, C. Chowdhury, S. Roy, S. Deb, S. Neogy, "Crash Failure Immune Offloading Framework", in *IEEE proceedings of 10th IEEE International Conference on Advanced Networks and Telecommunications Systems*, 2016.
8. Kaushik Ghosh, Pradip K. Das, Sarmistha Neogy, "KPS: A Fermat Point Based Energy Efficient Data Aggregating Routing Protocol for Multi-sink Wireless Sensor Networks", *Applied Computation and Security Systems, Advances in Intelligent Systems and Computing series 395*, 2016, pp. 203-221
9. Sayantani Saha, Priyanka Saha, Sarmistha Neogy, "Hierarchical Metadata Based Secure Data Retrieval Technique For Health Care Application" in *10<sup>th</sup> International Conference on Advanced Computing & Communication Technologies (ICACCT)*, Springer, Panipat, 2016.
10. Sayantani Saha, Tanusree Parbat, Sarmistha Neogy, "Designing A Secure Data Retrieval Strategy Using NoSQL Database", in *13<sup>th</sup> International Conference on Distributed Computing and Internet Technology, LNCS*, 2017, pp. 235 – 238

11. Benay Ray, Asif Middy, Sarbani Roy, Sunirmal Khatua, Multi-Criteria Based Federation Selection in Cloud, in 9th International Conference on COMMunication Systems & NETworkS (COMSNETS), Bangalore, India, 2017.
12. Tanmoy Maitra, Sarbani Roy, SecPMS: An Efficient and Secure Communication Protocol for Continuous Patient Monitoring System Using Body Sensors, in 9th International Conference on COMMunication Systems & NETworkS (COMSNETS), Bangalore, India, 2017.
13. Amitrajit Sarkar, Srijan Chattopadhyay, Paramita Dey, Sarbani Roy, The Importance of Seed Nodes in Spreading Information in Social Networks: A Case Study”, in 9th International Conference on COMMunication Systems & NETworkS (COMSNETS), Bangalore, India, 2017.
14. Srimoyee Bhattacharjee, Uttiya Sarkar, Sunirmal Khatua, Sarbani Roy, PMM: A Novel Prediction Based VM Migration Scheme in Cloud Computing, 13th International Conference on Distributed Computing and Internet Technology (ICDCIT), pp 107-117, Bhabaneshwar, Odisha, India, 2017.
15. Joy Dutta, Sarbani Roy, IoT-Fog-Cloud based Architecture for Smart City: Prototype of a Smart Building, 7th International Conference on on Cloud Computing, Data Science & Engineering, CONFLUCENCE, Noida, Uttar Pradesh, India, 2017.
16. Joy Dutta, Chandreyee Chowdhury, Sarbani Roy, Asif Iqbal Middy, Firoj Gazi, Towards Smart City: Sensing Air Quality in City based on Opportunistic Crowd-sensing, 18<sup>th</sup> International Conference on Distributed Computing and Networking (ICDCN), Hyderabad, India.
17. Sayanti Mondal, Chandreyee Chowdhury, Sarbani Roy, Sumanta k. Deb, Sarmistha Neogy, Crash Failure Immune Offloading Framework, in 10<sup>th</sup> IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS 2016), Bangalore, India.
18. Joy Dutta, Firoj Gazi, Sarbani Roy, Chandreyee Chowdhury, AirSense: Opportunistic Crowd-Sensing based Air Quality monitoring System for Smart City, in IEEE Sensors, Orlando, FL, USA, 2016.
19. Tanmoy Maitra, Paramita Mallick, Sarbani Roy, LD-MAC: A Load-Distributed Data Transmission in Body Area Network, in IEEE Sensors, Orlando, FL, USA, 2016.
20. Moumita Deb and Sarbani Roy, Link Quality Modeling for Energy Harvesting Wireless Sensor Networks, Proceedings of the First International Conference on Intelligent Computing and Communication, Volume 458 of the series Advances in Intelligent Systems and Computing, Springer Singapore, pp. 669678, 2016.
21. J. Saha, **C. Chowdhury**, S. Biswas (2017) Patient Monitoring Framework for Smart Home using Smart Handhelds, in IEEE Proceedings of WiSPNET 2017, March 22-24, 2017.
22. J. Saha, **C. Chowdhury**, S. Biswas (2017) Device Independent Activity Monitoring using Smart Handhelds, in IEEE Proceedings of Confluence 2017: : Cloud Computing Data Science & Engineering.
23. M. Roy, **C. Chowdhury**, N. Aslam (2017) Designing an Energy Efficient WBAN Routing Protocol, in 9th International Conference on COMMunication Systems & NETworkS (COMSNETS 2017).
24. **C. Chowdhury**, N. Aslam, S. Spinsante, D. Perla, A. Del Campo, E. Gambi (2016) Energy Efficient Communication in Ambient Assisted Living, book chapter for “Ambient Assisted Living and Enhanced Living Environments: Principles, Technologies and Control”, Elsevier, 2016, pp. 37-59.
25. A. Mallick, **C. Chowdhury**, A. Saha (2016) Energy Efficient Routing Protocol for Ambient Assisted Living Environment with Multiple Sinks, in IEEE proceedings of 13th International IEEE India Conference (INDICON 2016), pp.1-6.

26. D. Ghosh, P. Roy, **C. Chowdhury**, S. Bandyopadhyay (2016) An Ensemble of Condition based Classifiers for Indoor Localization, in IEEE proceedings of 10th IEEE International Conference on Advanced Networks and Telecommunications Systems, 2016.
27. A. Dutta, **C. Chowdhury**, S. Neogy (2016) Ant-AODV-VANET: A Bio-Inspired Routing Protocol for VANET accepted for presentation and publication in Springer Proceedings of Fourth International Conference on “Emerging Research in Computing, Information, Communication and Applications” (ERCICA-16), July 29-30, 2016.
28. S. Sen, **C. Chowdhury**, S. Neogy (2016) Design of Cluster-Chain based WSN for Energy Efficiency, accepted for presentation and publication in IEEE Proceedings of 2nd International Conference on Applied and Theoretical Computing and Communication Technology (iCATccT - 2016), July 21-23, 2016.
29. S. Bose and **N. Mukherjee**, “Senslaas: A Sensor-Cloud Infrastructure with Sensor Virtualization,” 2016 IEEE 3rd International Conference on Cyber Security and Cloud Computing (CSCloud), Beijing, 2016, pp. 232-239. doi: 10.1109/CSCloud.2016.28
30. S. Bose and **N. Mukherjee**, “PrIOR: A prime number based I/O redirection algorithm for sensor-cloud infrastructure,” 2016 International Conference on High Performance Computing & Simulation (HPCS), Innsbruck, 2016, pp. 605-612. doi: 10.1109/HPCSim.2016.7568391
31. S. Bose, **N. Mukherjee** and S. Mistry, “Environment Monitoring in Smart Cities Using Virtual Sensors,” 2016 IEEE 4th International Conference on Future Internet of Things and Cloud (FiCloud), Vienna, 2016, pp. 399-404. doi: 10.1109/FiCloud.2016.63
32. A. Gupta and **N. Mukherjee**, “Rationale behind the virtual sensors and their applications,” 2016 International Conference on Advances in Computing, Communications and Informatics (ICACCI), Jaipur, 2016, pp. 1608-1614. doi: 10.1109/ICACCI.2016.7732278
33. A. S. Mondal, S. Chattopadhyay, S. Neogy and **N. Mukherjee**, “Object based schema oriented data storage system for supporting heterogeneous data,” 2016 International Conference on Advances in Computing, Communications and Informatics (ICACCI), Jaipur, 2016, pp. 1025-1032. doi: 10.1109/ICACCI.2016.7732179
34. S. Mondal and **N. Mukherjee**, “Mobile-assisted remote healthcare delivery,” 2016 Fourth International Conference on Parallel, Distributed and Grid Computing (PDGC), Wagnaghat, 2016, pp. 630-635.
35. S. Mondal and **N. Mukherjee**, “A framework for ICT-based primary healthcare delivery for children,” 2017 9th International Conference on Communication Systems and Networks (COMSNETS), Bengaluru, India, 2017, pp. 525-529.
36. A. Gupta, S. Sarkar and **N. Mukherjee**, “On uncertainty determination in eHealth sensors,” 2017 IEEE Sensors Applications Symposium (SAS), Glassboro, NJ, 2017, pp. 1-6.

## 5. Collaborative Programmes:

Nandini Mukherjee is the lead PI of a collaborative project entitled “Remote Health: A Framework for Healthcare Services using Mobile and Sensor-Cloud Technologies” funded by ITRA, Media Lab Asia. Other institutes include University of Calcutta, NIT Durgapur, IEST Shibpur, KIIT University, and FGIET

## NATURAL PRODUCT STUDIES

Telefax	: +91 33 2414-6046
Int.	: 2457-2485
Director.	: Prof. Pulok K Mukherjee
E-mail	: dir.naturalproduct@jadavpuruniversity.in

### 1. A Courses Offered:

School of Natural Product Studies has been working on several aspects for development of natural product through their excellent research skill for the benefit of society. Several students are pursuing their PhD programme in the field of natural product research with fellowship from different organizations. Following research scholars are working for their PhD with fellowship from different funding agencies/organizations:

1. Debayan Goswami, Research Fellow, UGC-BSR fellowship Scheme science for meritorious students, Govt. of India.
2. Shiv Bahadur, Senior Research Fellow, Department of Biotechnology, (DBT), Govt. of India
3. Amit Kar, Senior Research Fellow, State Fellowship Programme, Govt of West Bengal.
4. Joydeb Chanda, Project Fellow, UGC-UPE, Phase II, Govt. of India.
5. Sayan Biswas, Research Assistant in DBT-TATA Innovation Fellowship, Govt. of India.
6. Sayantan Sengupta, DST Inspired Fellow, New Delhi
7. Subhadip Banerjee, Project Fellow, Albert David, Kolkata, West Bengal.
8. Akansha Sharam, Project Fellow, Emami Limited, Kolkata, West Bengal.

### 1. B. No. of Faculty Members:

All the following faculties are regular faculty of Dept of Pharmaceutical Technology, JU

1. Prof. Pulok K. Mukherjee, Director
2. Dr. Pallab Kanti Haldar, Joint Director
3. Prof. Sanmoy Karmakar

### 2. A Departmental Research Activities: (Broad Areas)

#### Research Areas: Natural Products Research

The School of Natural Product Studies is moving forward for the betterment of the human healthcare through several research works on quality control, standardization, safety, efficacy and validation of herbal medicine under Jadavpur University with its wider areas to include:

- Traditional medicine inspired drug development
- Screening and evaluation of natural products
- Metabolomic study & chemo profiling of medicinal plants
- Quality control and standardization of herbal medicine
- Formulation of natural products as therapeutic agent
- High throughput screening of herbal medicine
- Lead finding from natural resources
- Therapeutic & pharmacokinetic profiling of herbal drugs
- Safety evaluation and Pharmacovigilance study
- Dissemination of knowledge for promotion of natural products



- Scientific validation of Indian Systems of system including Ayurveda, Siddha, Unani and Homeopathy
- Phyto-chemical and phyto-pharmacological studies for lead finding in natural products from the great ancient treatise of India
- Herbal therapeutics - pharmacokinetics and utilization of herbal drugs
- Development of scientific data for evidence based health care claim through traditional medicine

**2. B. Seminar/Workshop/Conference/Symposium Organized:**

- i) “International Conclave on Ethno Pharmacology Traditional Health Practices” jointly with the 7<sup>th</sup> World Ayurveda Congress & Arogya Expo, Kolkata, during December 02-03, 2016, was organized by School of Natural Product Studies, Jadavpur University, Kolkata.
- ii) 3<sup>rd</sup> Convention of SFE – INDIA, and the National Seminar [2016] on “Analytical techniques for drug discovery & development form natural products” was organized by School of Natural Product Studies, Jadavpur University, Kolkata, in association with the Society of Ethnopharmacology, September 24, 2016.
- iii) National Seminar on “Ashwagnadha” and conclave on local health tradition organized by School of Natural Product Studies, Jadavpur University, Kolkata, in association with the Society of Ethnopharmacology, September 9-10, 2017.

**2. C. Major Research Project: (Name of the Teacher–Name of the Project–Funding Agency–Sanctioned order no. & date)**

**Ongoing Research Project:**

Prof. Pulok K. Mukherjee–Development of standardized, efficacious and safe herbal preparation for visceral leishmaniasis (Kala-Azar) and study of its chemistry, biology and toxicity–Department of Biotechnology (DBT), New Delhi–Sanction order No - BT/PR4712/PBD/17/2012; dated 14.11.2013

Prof. Pulok K. Mukherjee–Investigation of traditional medicines used as anti-infectives and against neurodegenerative Disease–Department of Science and Technology (DST), New Delhi–Sanction order No - DST/INT/South Africa/P-17/2016, dated 15..12.2016

Prof. Pulok K. Mukherjee–Metabolomic study: tools for quality evaluation and validation of Medicinal plants used in Indian systems of medicine–TATA Innovation Fellowship, Department of Biotechnology (DBT), New Delhi–Sanction order No - BT/HRD/35/01/04/2014

Prof. Pulok K. Mukherjee–Development of test protocol, standardization and method validation of ADLIV Forte capsules and individual plant extracts–Albert David Limited, Kolkata–Sanction order No - HPK/kmDated 10-1-2017

Prof. Pulok K. Mukherjee–Development and evaluation of ‘Varnya’ formulations from the medicinal plants of Ayurvedic importance–Emami Ltd., Kolkata–Sanction order No - R&D/CKK/CG/PRO/2015, Dated 27.10.2015

**Completed Research Project:**

Dr. Pulok K. Mukherjee–Novel Drug Discovery and Development Approaches For The Pharmacological Immune Enhancers In Immune Compromised Individuals–Dept. of Science & Technology (DST): India-Brazil-South Africa (IBSA) Trilateral Cooperation Program–F. No:INT/IBSA/01-04/2010(i); dated 18/05/2011



Dr. Pulok K. Mukherjee–Synergistic interaction of anti-bacterial natural products from medicinal plants of North East India: An effort in developing multi drug resistance natural antibiotic leads–Department of Biotechnology(DBT) NER Division New Delhi–F. No: BT /153/NE/TBP/2011 dated 08/11/2011

**3. A. Invited Lectures Delivered/Session Chaired: (Name of the teacher–Type of Participation–Name of the Seminar/Conference etc.–Place–Duration)**

**International**

Dr. Pulok K. Mukherjee–Invited Speaker–Preconference International Congress of the Society for Ethnopharmacology and Society for Ethnopharmacology, Dhaka University, Dhaka, on “Angiotensin Converting Enzyme (ACE) Inhibitors from medicinal plants for Cardiovascular diseases (CVD)”–Dhaka, Bangladesh –May 21, 2017

Dr. Pulok K. Mukherjee–Invited Speaker–17<sup>th</sup> International Congress of the Society for Ethnopharmacology–ISE “Ethnopharmacology at the Crossroads of Cultures and Disciplines”, Holy Spirit University of Kaslik, Lebanon on “Ayurveda - Evidence based health care for the community”–Lebanon, –April 24-28, 2017

Dr. Pulok K. Mukherjee–Invited Speaker–International Congress of the Association of Chinese Medicine, Medicine and Health Division of Chinese Academy of Engineering, Yulin, Guangxi, China on “Ethnopharmacology and AYUSH medicine: India perspective”–Yulin, Guangxi, China–November 15-19, 2016

**National**

Dr. Pulok K. Mukherjee–Invited Speaker–4th International Congress of Society for Ethnopharmacology, Uka Tarsadia University on “Drugs from Medicinal Plants – Learning from Nature and our Ancestors”– Uka Tarsadia University, Surat–February 23-25, 2017

Dr. Pulok K. Mukherjee–Invited Lecture–Ethno pharmacology, Ethno medicine & Traditional Health Practices–Haryana Bhawan, Copernicus Marg, New Delhi–February 11, 2017

Dr. Pulok K. Mukherjee–Invited Lecture–Shifting Paradigm in Natural Product Research for drug Development –VNS Group of Institution, Bhopal–February 12, 2017

Dr. Pulok K. Mukherjee–Invited Speaker–Symposium on Nutraceuticals, National Institute of Pharmaceutical Education and Research (NIPER), Kolkata on “Your Food as Your Medicines - Quality Related Safety issues”–National Institute of Pharmaceutical Education and Research (NIPER), Kolkata, Dr. J.C Ray Auditorium, CSIR-IICB,–January 27, 2017

Dr. Pulok K. Mukherjee–Invited Lecture–104th Indian Science Congress, Science & Technology for National Development on “Tradition Meets Innovation – Ethnopharmacology & Development of Natural Products” –Sri Venkateswara University, Tirupati–January 3-7, 2017

Dr. Pulok K. Mukherjee–Invited Lecture–Orientation Programme at UGC-HRDC on “Getting Published your work in peer reviewed Journals – Medium of Scientific Communication”–Salt Lake Campus, Jadavpur University, Kolkata–December 6, 2016

Dr. Pulok K. Mukherjee–Invited Lecture–National Workshop On Technology Up-gradation & Pharmaceutical Promotion on “Product Development from Natural Resources: Industrial Perspectives” by National Institute of Pharmaceutical Education & Research, Kolkata (NIPER- Kolkata)–Regional Occupational Health Centre (Eastern), NIOH-ICMR, Salt Lake, Kolkata–November 29 -30, 2016

Dr. Pulok K. Mukherjee–Invited Lecture–International Seminar on, Prevention, Promotion and Pacification: Ayurvedic Landscape on”Changing Scenario for Development and Promotion of Ayurveda”–Science City Auditorium, Kolkata–October 9-11, 2016

Dr. Pulok K. Mukherjee–Invited Lecture–2<sup>nd</sup> International Symposium, On New Processes & Applications for Plant & Microbial Products on “Paradigm Shift in Natural Product Research - Traditional Medicine Inspired Approaches”–India Habitat Center, New Delhi, India–November 1-2, 2016

Dr. Pulok K. Mukherjee–Invited Lecture–National seminar On Pharmacovigilance of AYUSH drugs on “Pharmacovigilance of Herbal Medicine - perspectives and challenges”–Sri Ramachandra University, Porur, Chennai–October 19, 2016

Dr. Pulok K. Mukherjee–Invited Lecture–61<sup>st</sup> Orientation Programme UGC-HRDC on “Publishing Research in Impact Journals - Your Passport to Scientific Community” –Salt Lake Campus, Jadavpur University, Kolkata–November 17, 2016

### **3. B. Seminar/Workshop/Conference/Symposium Attended:**

1. “Standardization and evaluation of anti-HSV 1 activity of *Bacopa monnieri* extract – A mechanistic approach”, in 4<sup>th</sup> International Congress of Society for Ethnopharmacology, India on “Healthcare in 21<sup>st</sup> century: Prospective of Ethnopharmacology & Medicinal Plant Research” Surat, Gujarat, India, during February 23-25, 2017.
2. “Network pharmacology analysis of ursolic acid: A metabolite with promising therapeutic potential”, in 4<sup>th</sup> International Congress of Society for Ethnopharmacology, India on “Healthcare in 21<sup>st</sup> century: Prospective of Ethnopharmacology & Medicinal Plant Research” Surat, Gujarat, India, during February 23-25, 2017.
3. “Herb-drug interaction of *Momordica charantia* extract on the pharmacokinetics of pioglitazone in streptozotocin induced diabetic rats” in 4<sup>th</sup> International Congress of Society for Ethnopharmacology, India on “Healthcare in 21<sup>st</sup> century: Prospectives of Ethnopharmacology & Medicinal Plant Research” Surat, Gujarat, India, during February 23-25, 2017.
4. “Screening and evaluation of *Trachyspermum ammi* extracts for their potential anti-leishmanial efficacy”, in UGC- Symposium–2017, Jadavpur University, Kolkata, during, 30<sup>th</sup> March 2017.
5. “Piperine phospholipid complex enhances the bioavailability of piperine and increases the antioxidant potential”, in 4<sup>th</sup> International Congress of Society for Ethnopharmacology, India on “Healthcare in 21<sup>st</sup> century: Prospective of Ethnopharmacology & Medicinal Plant Research” Surat, Gujarat, India, during February 23-25, 2017.
6. “Development of genistein loaded nanoemulsion based nano-gel for enhancement of therapeutic efficacy and bioavailability through transdermal delivery” in 3<sup>rd</sup> Convention: SFE India, at School of Natural Product Studies, Jadavpur University, Kolkata during September 24, 2016.
7. “Screening and evaluation of *Cedrus deodara* for anti-leishmanial activity”. In 3<sup>rd</sup> Convention: SFE - INDIA, 2016, National Seminar, Jadavpur University, Kolkata, September 24, 2016.
8. “Hepatoprotective activity of *Andrographis paniculata*: A network pharmacology approach” In 3<sup>rd</sup> Convention: SFE - INDIA, 2016, National Seminar, Jadavpur University, Kolkata, September 24, 2016.
9. “Screening of some Ayurvedic medicinal plants for antiviral potentials against both wild and clinical isolates of Herpes Simplex Virus – 1 (HSV-1)”. 16<sup>th</sup> ICE, 16<sup>th</sup> International Congress on

Ethnopharmacology, November 16-18, 2016, Yulin City, Guangxi Zhuang Autonomous Region, China.

10. "Evaluation of antiviral (HSV-1) efficacy of the standardized extract of *Boswellia serrata*". in SFEC -2016, 3<sup>rd</sup> International Congress of the Society for Ethnopharmacology, 19-21 October, 2016.
11. "LC-MS/MS metabolomics guided network pharmacology analysis of *Lagenaria siceraria*" in 3<sup>rd</sup> Convention: SFE India, at School of Natural Product Studies, Jadavpur University, Kolkata during September 24, 2016.
12. "Validation of ferulic acid in four different Indian *Ananas cosmosus* cultivars through RP-HPLC" in 3<sup>rd</sup> Convention: SFE India, at School of Natural Product Studies, Jadavpur University, Kolkata during September 24, 2016

**4. A. Books/Book Chapter/Monographs etc. Published: (Name of the Teacher-Name of the book Chapter Published-Date of the Publication-Name of the Publisher)**

- Dr. Pulok K.Mukherjee-Evidence based validation of Indian traditional medicine -2017-World scientific publishing Co. Pte. Ltd. Singapore, 2017, pp. 137-160. ISBN: 978-981-3200-33-3.
- Dr. Pulok K.Mukherjee-Factors to Consider in Development of Nutraceutical and Dietary Supplements-2017-Academic Press, Tokyo, Japan, 2017. Pp. 653-661: ISBN: 978-0-12-802104-0.

**4. B. Articles Published in Journals:(Name of the Teacher-Title of The Paper-Name of the Journal,Volume, Year and Page)**

Dr. Pulok K.Mukherjee -Tyrosinase inhibitory mechanism of betulinic acid from *Dillenia indica*-*Food Chemistry*, 2017, 232, 689-696

Dr. Pulok K.Mukherjee -Nanoemulsion as a novel carrier system for improvement of betulinic acid oral bioavailability and hepatoprotective activity-*Journal of Molecular Liquids*, 2017, 237, 361-371

Dr. Pulok K.Mukherjee -Paradigm shift in natural product research: traditional medicine inspired approaches-*Phytochemistry Reviews*, 2017, DOI 10.1007/s11101-016-9489-6

Dr. Pulok K.Mukherjee -Herb-drug interaction potential of *Berberis aristata* through cytochrome P 450 inhibition assay -*Synergy*, 2017, 4, 1-7

Dr. Pulok K. Mukherjee-Development of Ayurveda - Tradition to trend-*Journal of Ethnopharmacology*, 2017, 197, 10-24.

Dr. Pulok K.Mukherjee -Safety assessment of selected medicinal food plants used in Ayurveda through CYP450 enzyme inhibition study-*Journal of Science and Food Agricultural*. 2017, 97, 333-340

Dr. Pulok K.Mukherjee -Enhancement of photoprotection potential of catechin loaded nanoemulsion gel against UVA induced oxidative stress-*Journal of Photochemistry & Photobiology, B: Biology*, 160 2016, 318-329.

Dr. Pulok K.Mukherjee -Metabolism mediated interaction potential of standardized extract of *Tinospora cordifolia* through rat and human liver microsomes-*Indian Journal of Pharmacology*, 2016, 48: 576-81.

Dr. Pulok K. Mukherjee –Metabolomics of medicinal plants – a versatile tool for standardization of herbal products and quality evaluation of Ayurvedic formulations–*Current Science*, 2016, 111, 1624-1630

Dr. Pulok K. Mukherjee –Evaluation of Ubtan - A traditional indian skin care formulation–*Journal of Ethnopharmacology*, 2016, 192, 283-291.

Dr. Pulok K. Mukherjee –Tyrosinase inhibition kinetic studies of standardized extract of *Berberis aristata*–*Natural Product Research*, 2016, 30, 1451-54

Dr. Pulok K. Mukherjee –Screening of ethnomedicinal plants of diverse culture for antiviral potentials–*Indian Journal of Traditional Knowledge*, 2016, 15, 474-481

Dr. Pulok K. Mukherjee–CYP450 mediated inhibition potential of *Swertia chirata*: An herb from Indian traditional medicine–*Journal of Ethnopharmacology*, 2016; 78, 34–39.

Dr. Pulok K. Mukherjee–Evidence Based Validation of Indian Traditional Medicine – Way Forward–*World Journal of Traditional Chinese Medicine*, 2016, 2, 48-61.

Dr. Pulok K. Mukherjee –A novel benzofuran, 4-methoxybenzofuran-5-carboxamide, from *Tephrosia purpurea* suppressed histamine H1 receptor gene expression through a protein kinase C- $\alpha$ -dependent signaling pathway–*International Immunopharmacology*, 2016, 30, 18-26.

#### **5. Collaborative Programme:**

School of Natural Product Studies is working on the development of therapeutic leads from natural resource and has been working with several projects from DST, DBT, UGC, AICTE and others. Several potential collaborations have been made with reputed institutions and industries for academic exchange and product development from natural resources through the quality research work. In this context some Memorandum of understanding [MOUs] has been signed with the respective organizations and Jadavpur University:

Several collaborations have been made from School of Natural Product Studies, Jadavpur University with several institutes and industries as follows in the year of 2016-17 in the field of Natural Product Research:

- **National Institute of Pharmaceutical Education & Research (NIPER), Kolkata**, in the field of Herbal Drug Research relating to analysis of plant secondary metabolites and also for the screening, isolation, characterization and standardization of herbal drugs.
- **Sri Ramachandra University, Chennai**, on natural product research with Centre for Natural Medicine Research, Department of Pharmacy, on drug discovery and drug development from natural resources through exchange expertise.
- **Mae Fah Luang University, Chiang Rai, Thailand**, on the evidenced based validation and exploration of therapeutic potential of natural products for promotion and development of traditional medicine.
- **Emami Limited**, 13, BT Road, Kolkata, West Bengal, India, collaborative project on “Development and evaluation of ‘Varnya’ formulations from the medicinal plants of Ayurvedic importance” through the Industry Institute Partnership cell of Jadavpur University.

**6. Major Achievements:**

**Publications:**

Total publication [Peer Reviewed Journals with Impact Factor]	:	203
Cumulative impact factor	:	233
h - Index	:	51
i10 Index	:	193
Number of total citation of the published articles	:	12853
Total Scientific abstract in International & National conferences	:	168
Books/ Book Chapters/ Proceedings	:	37
Professional articles	:	22

- School of Natural Product Studies successfully published more than 17 research papers in peer reviewed journal and 2 book chapters in session year 2016-2017.
- TATA Innovation Fellowship, Department of Biotechnology, New Delhi, Govt. of India.
- Associate editor of Journal of Ethnopharmacology, Official Journal of the International Society for Ethnopharmacology, An Interdisciplinary Journal Devoted to Indigenous Drugs, published by Elsevier Science; renewal of the contract has been made.
- Member of the Programme Advisory Committee (PAC), DST- on Plant Sciences for the Science & Engineering Research Board (SERB), Dept of Science & Technology, Govt of India, New Delhi.
- Member of the Expert Group of Department of Biotechnology (DBT) ,on “Translational Research for Products and Processes from Medicinal and Aromatic Plants” of Department of Biotechnology, Ministry of Science & Technology, New Delhi.
- Member of the Programme Screening Committee (PSC), National Medicinal Plant Board (NMPB), Ministry of AYUSH, Govt. of India, New Delhi on research and development under central sector scheme on conservation, development and sustainable management of medicinal plants.

**Editor/Editorial Board Members of International/National Peer Reviewed Journals**

- Associate Editor, Journal of Ethnopharmacology**, International journal on botanical research, published by Elsevier Science, the Netherlands 2003 onwards.
- Phytomedicine**, an International journal of phytotherapy and phytopharmacology; published by Elsevier Science, the Netherlands.
- Phytochemical Analysis**, an International journal on development, improvement, validation of analytical methodology in plant sciences; published by John Wiley & Sons Ltd., U.K.
- Fitoterapia**, an International Journal dedicated to medicinal plants and bioactive natural products of plant; published by Elsevier Science, the Netherlands.
- Life Science**, an International Journal emphasizing the molecular, cellular, and functional basis of therapy; published by Elsevier Science, the Netherlands.
- Journal of herbal medicine**, an International Journal emphasizing on the herbal therapeutics, phytomedicine, medicinal plants in healthcare, clinical trials and pilot studies, biological and pharmacological effects of plant extracts.; published by Elsevier Science, the Netherlands.
- Synergy**, an international journal on application of the principle of “synergy” at the molecular, cellular and organismic levels in the prevention and treatment of disease; published by Elsevier Science, the Netherlands.



- viii) **Journal of Integrative Medicine (JIM)**, an international journal to promote complementary and alternative medicine (CAM), published by Elsevier Science.
- ix) **Combinatorial Chemistry & High Throughput Screening**, an international journal on Chemical biology in the field of High Throughput Screening, Combinatorial Chemistry, Chemoinformatics, Laboratory Automation and Compound management for advancing in drug discovery research; published by Bentham Science. Chennai, India.
- x) **Journal of Pharmaceutical Analysis**, an International journal, on quantitative and qualitative technique in pharmaceutical analysis, published by Elsevier on behalf of Xi'an Jiaotong University, China.
- xi) **Journal Oriental Pharmacy and Experimental Medicine [OPEM]**, an International journal on clinical applications of traditional medicine pharmacology & toxicology of natural products published by Springer, Institute of Oriental Medicine, South Korea.
- xii) **Indian Journal of Traditional Knowledge [IJTK]**, Journal on biological activities of the materials from plants, animals and minerals, used in AYUSH and Folk-remedies, published by National Institute of Science Communication & Information Resources, CSIR, New Delhi. Medicinal & Aromatic Plants Abstracts.
- xiii) **Indian Drugs** an Indian journal on Pharmaceutical Technology, published by Indian Drug Manufacturers' Association, Worli, Mumbai, India.
- xiv) **Indian Journal of Pharmaceutical Education and Research (IJPER)**, Indian journal on pharmaceutical technology and research, published by Association of Pharmaceutical Teachers of India (APTI).

## NUCLEAR STUDIES AND APPLICATION

Phone	: +91 33 2335-5813
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E-mail	: dir.nuclearstudies@jadavpuruniversity.in

### List of Journal Publications :

1. Priyankan Datta<sup>b</sup>, Aranyak Chakravarty<sup>a, b</sup>, Koushik Ghosh<sup>b</sup>, Achintya Mukhopadhyay<sup>b</sup>, Swarnendu Sen<sup>b</sup>. *A numerical analysis on the effect of inlet parameters for condensation induced water hammer*, Nuclear Engineering and Design, 304 (2016) 50-62
2. Aranyak Chakravarty<sup>a, b</sup>, Priyankan Datta<sup>b</sup>, Koushik Ghosh<sup>b</sup>, Swarnendu Sen<sup>b</sup>, Achintya Mukhopadhyay<sup>b</sup>. *Thermal Non-equilibrium Heat Transfer and Entropy Generation due to Natural Convection in a Cylindrical Enclosure with a Truncated Conical, Heat-Generating Porous Bed*, Transport in Porous Media, 116 (2017) 353-377



3. Priyankan Datta<sup>b</sup>, Aranyak Chakravarty<sup>a,b</sup>, Koushik Ghosh<sup>b</sup>, Achintya Mukhopadhyay<sup>b</sup>, Swarnendu Sen<sup>b</sup>. *Modelling aspects of vapour bubble condensation in subcooled liquid using VOF approach*, Numerical Heat Transfer A (accepted)
4. Debayan Bose<sup>d</sup>, Shohan Banerjee<sup>a</sup>, M. Kumar<sup>e</sup>, P. P. Marathe<sup>e</sup>, Siddhartha Mukhopadhyay<sup>e</sup>, Amitava Gupta<sup>a,d</sup>, *An Interval Approach to Nonlinear Controller Design for Load-Following Operation of a Small Modular Pressurized Water Reactor*, IEEE Transactions on Nuclear Sciences (in Press)

**List of Conference Publications :**

1. Aranyak Chakravarty<sup>a,b</sup>, Priyankan Datta<sup>b</sup>, Koushik Ghosh<sup>b</sup>, Swarnendu Sen<sup>b</sup>, Achintya Mukhopadhyay<sup>b</sup>. *Numerical analysis of a bottom-flooded porous bed in a ventilated enclosure*, National Conference on Advances in Thermal Engineering, September 23-24, 2016, Jadavpur University, Kolkata, India
2. Nirmalendu Biswas<sup>b</sup>, Aranyak Chakravarty<sup>a</sup>, Nirmal K. Manna<sup>b</sup>. *Hydromagnetic combined mixed convection in a discretely heated enclosure*, National Conference on Advances in Thermal Engineering, September 23-24, 2016, Jadavpur University, Kolkata, India
3. JoydeepMunshi<sup>a</sup>, Sourav Sarkar<sup>b</sup>, Achintya Mukhopadhyay<sup>b</sup>, Swarnendu Sen<sup>b</sup>. *Numerical Study of The Effect of Ultrafine Water Mist on Hydrogen-air Premixed Stagnation Flames*, National Conference on Advances in Thermal Engineering, September 23-24, 2016, Jadavpur University, Kolkata, India
4. TuhinMaitra<sup>a</sup>, Priyankan Datta<sup>b</sup>, Aranyak Chakravarty<sup>a,b</sup>, Achintya Mukhopadhyay<sup>b</sup>, Koushik Ghosh<sup>b</sup>, Swarnendu Sen<sup>b</sup>. *Numerical investigation of molten fuel jet breakup inside a liquid pool*, ILASS-ASIA 2016, 18<sup>th</sup> Annual Conference on Liquid Atomization and Spray Systems – Asia, Chennai, India, Nov 6-9, 2016
5. JoydeepMunshi<sup>a</sup>, Sourav Sarkar<sup>b</sup>, Achintya Mukhopadhyay<sup>b</sup>, Swarnendu Sen<sup>b</sup>. *Numerical study of the effect of fine polydisperse water spray on laminar flame speed of hydrogen-air premixed flames stabilized in the stagnation flow field*, ILASS-ASIA 2016, 18<sup>th</sup> Annual Conference on Liquid Atomization and Spray Systems – Asia, Chennai, India, Nov 6-9, 2016
6. Aranyak Chakravarty<sup>a,b</sup>, Akash Swarnakar<sup>c</sup>, Priyankan Datta<sup>b</sup>, Koushik Ghosh<sup>b</sup>, Swarnendu Sen<sup>b</sup>, Achintya Mukhopadhyay<sup>b</sup>. *Effect of porosity distribution on heat transfer characteristics of a heat generating porous enclosure*, 6<sup>th</sup> International and 43<sup>rd</sup> National Conference on Fluid Mechanics and Fluid Power, Dec 15-17, 2016, MNNITA, Allahabad, India
7. Priyankan Datta<sup>b</sup>, Abhinava Saha<sup>b</sup>, Aranyak Chakravarty<sup>a,b</sup>, Nirmal K. Manna<sup>b</sup>. *Pressure transients during shock propagation through subcooled liquid*, 6<sup>th</sup> International and 43<sup>rd</sup> National Conference on Fluid Mechanics and Fluid Power, Dec 15-17, 2016, MNNITA, Allahabad, India
8. Abhinava Saha<sup>b</sup>, Priyankan Datta<sup>b</sup>, Aranyak Chakravarty<sup>a,b</sup>, Nirmal K. Manna<sup>b</sup>. *Characteristics of shock propagation through superheated vapour*, 6<sup>th</sup> International and 43<sup>rd</sup> National Conference on Fluid Mechanics and Fluid Power, Dec 15-17, 2016, MNNITA, Allahabad, India
9. Ritabrata Saha<sup>b</sup>, Uddipan Paul<sup>a</sup>, Swarnendu Sen<sup>b</sup>. *Control of instability associated with the single phase square NCL using proportional controller*, 6<sup>th</sup> International and 43<sup>rd</sup> National Conference on Fluid Mechanics and Fluid Power, Dec 15-17, 2016, MNNITA, Allahabad, India
10. Aranyak Chakravarty<sup>a,b</sup>, Priyankan Datta<sup>b</sup>, Koushik Ghosh<sup>b</sup>, Swarnendu Sen<sup>b</sup>, Achintya Mukhopadhyay<sup>b</sup>. *Development and Validation of a CFD model for simulating dryout phenomena in corium debris beds*, International Conference on Sustainable Energy and Environmental Challenges (SEEC-2017), Feb 26-28, 2017, Mohali, India

11. Priyanka Datta<sup>b</sup>, Aranyak Chakravarty<sup>a, b</sup>, Koushik Ghosh<sup>b</sup>, Achintya Mukhopadhyay<sup>b</sup>, Swarnendu Sen<sup>b</sup>. *Numerical investigation of jet breakup phenomena using VOF approach*, International Conference on Sustainable Energy and Environmental Challenges (SEEC-2017), Feb 26-28, 2017, Mohali, India
12. Prosenjit Das<sup>a</sup>, Sudhabindu Ray<sup>a, f</sup>, *NDT using open-ended waveguides*, International Symposium, Antennas and Propagation (APSYM), Dec 15-17, 2016, Cochin (India).

<sup>a</sup> School of Nuclear Studies & Application, Jadavpur University, Kolkata 700032, India

<sup>b</sup> Department of Mechanical Engineering, Jadavpur University, Kolkata 700032, India

<sup>c</sup> Department of Mechanical Engineering, National Institute of Technology Durgapur, Durgapur 713209, India

<sup>d</sup> Department of Power Engineering, Jadavpur University, Kolkata 700032

<sup>e</sup> BARC, Mumbai

<sup>f</sup> Department of Electronics and Tele-communication Engineering, Jadavpur University, Kolkata-700032

#### Invited Lectures :

Prof. Amitava Gupta, Director (SNSA) delivered an invited lecture on Detection of Radio-Dispersal Devices (Dirty Bombs) at CID Headquarters, West Bengal

#### Training Sessions in India and Abroad :

**Prof. Amitava Gupta**, Director (SNSA) along with 4 Masters Students of the SNSA attended the training program within the scope of **Nuclear Security Training Series** by the Department of State of the United States of America in July 2016.

**Dr. Sudhabindu Ray**, Jt. Director (SNSA) attended **Advanced Nuclear Security Workshop** at IIT Kanpur from 24 to 26<sup>th</sup> August 2016.

**Training Courses Organized:** Participating unit in the TEQIP-II funded Skills@JU program.

### OCEANOGRAPHIC STUDIES

Telefax : +91 33 2867-1048

Int. : 2457-2217

Director. : Prof. Sugata Hazra

E-mail : dir.oceanography@jadavpuruniversity.in

#### Courses Offered:

- M. Phil in Oceanography & Coastal Management (Four Semester Course) **in take 10**
- P.G. Diploma in Remote Sensing GIS (2 Semester Course) **in take 30**
- EDUSAT based Certificate courses on Remote Sensing and GIS with Indian Institute of Remote Sensing, Dehradun (One Semester) in distance mode **in take 20 X2**
- Ph.D. level coursework
- Subject oriented courses offered to various Departments and Universities/ Govt. Institutes / Departments

**Ph.D. (2016-17 )** Awarded : 8 Submitted : 4 , Ongoing 14

**Number of Faculty Members :**

- Sanctioned: 6 (P2, As.P1, Ast. P 3) Vacant: 4 (P 1, Asso.P1, Asst. P 2)  
Emeritus Scientist: 1 Visiting Scientist: 1
- Awards/ Service to Govt. / Expert Committees etc.

**Prof. Sugata Hazra**

- Member, State Coastal Zone Management Authority, nominated by Govt. of India
- Member of State Fluoride Task force
- Member, National Preparatory Committee on the conservation and sustainable use of marine biological diversity of areas beyond national jurisdiction to UNCLOS
- Member, Selection Committee, DRDO

**Prof. A. D. Mukherjee** (Emeritus Professor)

- Chairperson, NAAC Peer Team
- General Secretary, National Council of Education, Bengal

**Dr. Tuhin Ghosh**

- Invited to act as Coordinating Lead Author (CLA) for *Chapter 4: Sea Level Rise and Implications for Low Lying Islands, Coasts and Communities* of the IPCC Special Report on the Ocean and Cryosphere in a Changing Climate

**Research Projects (2016-17 ) (Names (PI.)–Name of the Project –Year– Funding Agency–Grant in lakh)**

**Prof. Sugata Hazra (PI.)**

1. Study of Energy Budget and its effect on Carbon fluxes in East Kolkata Wetlands – A Ramsar Site– 2016-2019–NRSC, Govt. of India–57 lakhs
2. Geospatial assessment of mangrove's species discrimination in Indian Sundarbans, their health and its effect on environment and climate using airborne hyperspectral (AVIRIS NG) and RISAT-I remote sensing data–2017-2020–SAC, Govt. of India–50 lakhs
3. Vulnerability Assessment of Mangroves and Corals of West Bengal, Odisha and Andaman Islands– 2017-2020–DST, Govt. of India–70 lakhs
4. Bio Optical Studies and Ecological Modelling in case II water of West Bengal Coast towards Hilsa Fishery Forecast –2013-2017–INCOIS, Govt. of India–69.306 lakhs (Instruments Separate)
5. Study of Carbon dynamics in Estuarine and near shore waters of Hugli estuary and East Kolkata wetlands–2013-2018–NRSC, Govt. of India–1 Crore
6. Tidal Energy Resource Mapping in Sundarbans Biosphere Area–2016–Prosperity Fund ,UK– 29 lakhs
7. Enhancing adaptive capacity and resilience to climate change of small and marginal farmers in Purulia and Bankura district West Bengal –2015-2019–NABARD (through DRCSC)–27 lakhs
8. Enhancing quality, access, and governance of undergraduate education in India”, Funded by European Commission, through British Council, India, (Joint Faculty coordinator)–2013-17– European Union (Through British Council)–1 Crore
9. Tidal Energy Resource Mapping in Sundarbans Biosphere Area (Co PI with IIT KGP)–2017-20 –DST –UKIERI–27 lakhs

**Prof. Gautam K. Sen**

Study of Tidal Dynamics and Interaction with surge in Sundarban Estuary–2015-2017–INCOIS. MoES, GoI–23.34 lakhs

**Dr Tuhin Ghosh**

DElta, vulnerability and Climate Change: Migration and Adaptation (DECCMA)–2014-2018  
DfID,UK and IDRC Canada Approx. 15 Crores

**Bijon Kumar Saha**

Book writing project on “Marine Geology of the Andaman Sea”–2012-2017–MoES.GoI–15 lakhs

**Publication (2016-17) in Alphabetical Order**

1. Akhand, A, Chanda, A, Dutta, S, Manna, S, Giri, S, Das, S, Lotliker, A.A, Chakraborty, K, Sen Sarkar, N, Sanyal, P, Hazra, S, Rao, K.H, 2017 ‘Microphytoplankton species assemblages, species-specific carbon stock and nutrient stoichiometry in the shallow continental shelf of the northern Bay of Bengal during winter’, *Indian Journal of Geo- Marine Science*, vol. 46, no. 09, pp. 1827-1835
2. Das, S, **Hazra, S**, Giri, S, Das, I, Chanda, A, Akhand, A, Maity, S 2017 ‘Light absorption characteristics of chromophoric dissolved organic matter (CDOM) in the coastal waters of northern Bay of Bengal during winter season’, *Indian Journal of Geo-Marine Science*, vol. 46, no. 5, pp. 884-892
3. Das, S, Das, I, Giri, S, Chanda, A, Maity, S, Lotliker, A.A., Srinivasa Kumar, T., Akhand, A, **Hazra, S**, 2017 ‘Chromophoric dissolved organic matter (CDOM) variability over the continental shelf of the northern Bay of Bengal’, *Oceanologia* <http://dx.doi.org/10.1016/j.oceano.2017.03.002>
4. Ghosh, P, Mukhopadhyay, A, Chanda, A, Mondal, P, Akhand, A, Mukherjee, S, Nayak, S.K., Ghosh, S, Mitra, D, **Ghosh, T and Hazra, S** 2017 ‘Application of Cellular automata and Markov-chain model in geospatial environmental modeling- A review’ *Remote Sensing Applications: Society and Environment*, 5: 64-77, DOI:10.1016/j.rsase.2017.01.005
5. Das, S, Giri, S, Das, I, Chanda, A, Ghosh, A, Mukhopadhyay, A, Akhand, A, Chowdhury, S. B., Dadhwal, V.K., Kumar, T.S., Lotliker, A.L., Mitra, D, **Hazra, S** 2017 ‘Nutrient dynamics of northern Bay of Bengal (nBoB)—Emphasizing the role of tides’ *Regional Studies in Marine Science*, 10:116-134, DOI:10.1016/j.rsma.2017.01.006
6. Ghosh S., **Hazra, S.**, Nandy,S., Mondal, P. P , Watham T. & Kushwaha, S. P. S.,2017,’ Trends of sea level in the Bay of Bengal using altimetry and other complementary techniques’ *Journal of Spatial Science*, Taylor & Francis, <https://doi.org/10.1080/14498596.2017.1348309>
7. Hajra, R., Szabo, S., Tessler, Z., **Ghosh, T.**, Matthews, Z. and Foufoula-Georgiou, E. (2017) Unravelling the association between the impact of natural hazards and household poverty: evidence from the Indian Sundarban delta. *Sustainability Science*, Springer, 12: 453. doi:10.1007/s11625-016-0420-2 (IF: 3.26)
8. Pal, I., **Ghosh, T.** and Ghosh, C. (2017) Institutional framework and administrative systems for effective disaster risk governance – Perspectives of 2013 Cyclone Phailin in India. *International Journal of Disaster Risk Reduction*, Elsevier. 21, 350–359. <http://dx.doi.org/10.1016/j.ijdr.2017.01.002> (IF: 1.443)
9. Ray, S.S., Das, D., **Ghosh, T** and Ghosh, A. K. (2017). Influence of Zinc and Molybdenum Contents in Soil and Drinking Water for the Development of Esophageal Cancer: A Cross Continental Study.

*International Journal of Sciences: Basic and Applied Research (IJSBAR), Volume 31, No 2, pp 219-225. ISSN 2307-4531 (Print & Online)*

10. Sen, Sayanti, **Sen, Goutam** , Chatterjee , Meenakshi (2017) Coastal vulnerability: A case study along Digha Sankarpur coast, West Bengal, India. *Indian Journal of Geo-Marine Science* ,Vol.46(02) pp 259-265
11. Mondal, Gopal., Gupta Manojit, Sen Goutam Kumar . (2017) An Investigation into Height Variation of Ionospheric Signature Due to the Cyclonic Storm Formation using COSMIC RO Measurements. *International Journal of Engineering Research and Application* Vol 7, Issue 7, pp 76-85

**Book Chapters:**

1. Pal, I. and **Ghosh, T. 2017**. Risk Governance Measures and Actions in Sundarbans Delta (India): A Holistic Analysis of Post-disaster Situations of Cyclone Aila. In Pal and Shaw Ed. *Disaster Risk Governance in India and Cross Cutting Issues*. **Springer** Singapore, p. 225-243. ISBN: 978-981-10-3309-4 (Print) 978-981-10-3310-0 (Online)
2. Hajra, R., Ghosh, A. and **Ghosh, T. 2016**. Comparative Assessment of Morphological and Landuse/Landcover Change Pattern of Sagar, Ghoramara, and Mousani Island of Indian Sundarban Delta Through Remote Sensing. In Hazra et. al. Ed *Environment and Earth Observation: case studies in India*. **Springer**. ISBN: 978-3-319-46008-6 DOI: 10.1007/978-3-319-46010-9\_11

**Books/Monographs:**

**Prof. Sugata Hazra** et al.2017. (Edited)  
*Environment and Earth Observation* : Springer

**Dr.Tuhin Ghosh:**

*Natural Hazards Management in Asia*.  
Sage Publishing (along with Dr. Indrajit Pal from Asian Institute of Technology, Bangkok, Thailand.  
(In press)

**Seminar Organisation /Presentation/Invited Lectures/Visits :**

**Prof.Sugata Hazra**

Attended University of Southampton (UK) in January 2016 for attending the DECCMA review meeting  
Participated in International Conference on European GeoScience Union(EGU) General Assembly during April 21-29 in Vienna, Austria,  
Attended University of Edinburgh, UK for Kick off meeting of DST\_UKIERI project 16-18 August on *Tidal Energy Resource Mapping in Sundarbans Biosphere Area* in collaboration with I.I.T Kharagpur & University of Edinburgh.

**Invited lectures**

Popular lectures in Radio and TV on Oceanic Resource and Hazard  
Refresher Courses on Disaster Management in /outside University

**Dr.Tuhin Ghosh**

International Conference:



**Annual Report 2016-17**

- Global Studies International Conference at National University of Singapore, Singapore during 8 – 9 June 2017.
- JpGU-AGU Joint Meeting at Makuhari, Tokyo, Japan during 20-25 May 2017.
- **Third Annual Learning Review of CARIIA** in Kathmandu, Nepal during 3-6 May 2017
- AGU Fall meeting at San Francisco, USA during 15-22 December 2017
- Water Security and Climate Change at AIT, Bangkok during 29 Nov – 02 Dec 2016

Invited Lecture

- **NRDMS, DST Sponsored Training** on “Geospatial Technology and Its Applications (**GeoTiA-2017**)” on 4 April 2017, **TISS - Mumbai**.

**Prof. Bijan Kumar Saha (Visiting Scientist)**

Invited lecture

- Attended “Workshop on Polymetallic nodules programme” at CSIR-National Institute of Oceanography, Goa.

**STUDIES IN ENVIRONMENTAL RADIATION AND ARCHAEOLOGICAL SCIENCES**

Int. : 2457-2352  
Director : Prof. Argha Deb  
E-mail : dir.eras@jadavpuruniversity.in

**1. B. Number of Faculty Members :** 5 (Five), No permanent faculty

**2. A. Area of Research Activities :**

- i. Study on alpha radioactivity in natural media
- ii. Real time radon monitoring in air, water, soil for seismic surveillance
- iii. Studies on Radiation resistant microbes

**2. B. Major Research Projects:(Name of the Investigators–Title of the Project–Duration–Amount (Rs.)–Funding Agency)**

Argha Deb–Real Time Radon Monitoring for Seismic Surveillance–5 years–Rs. 30 Lacs–UGC, India

**3. A. Invited Lectures Delivered/ Session Chaired :**

Invited lecture delivered by Prof. Argha Deb at Vidyasagar University on the occasion of 8<sup>th</sup> Vidyasagar-S. N. Bose National Workshop 2017 on Nuclear and Astrophysics: Two opposite ends of Dimension (NATD 2017), 17-19 January, 2017



**3. B. Seminar/Workshop/Conference/Symposium Attended:**

- i. First Regional Science and Technology Congress 2016, Presidency Division, Kolkata, NITTTR , 13-14 November 2016.
- ii. Management of Environmental Pollution in Context of the Growing Industries (MEPCGI-2017), RVS College of Engg and Technology, Jamshedpur, 10-11 February 2017
- iii. Twists and Turns in Physics Research (TTPR-2017), Jadavpur University, 21-22 February 2017

**3. C. Seminar/Workshop/Conference/Symposium Organised:**

Two Days Seminar on the Theme “**Respect Our Planet**” held during April, 22-23, 2017 organized jointly by School of Studies in Environmental Radiation and Archeological Sciences and the World Science Congress to celebrate the World Earth day at Gandhi Bhavan Jadavpur University, Kolkata

**4. B. Papers Published During the Period :**

**Journal Papers:**

- i. A. Deb, M. Gazi, G. Bhoumik, A. Naskar, C. Barman, Exposure to underground Radon in and around Kolkata Municipal Corporation area: An exhaustive study, J of Radioanal and Nucl Chem, 2016, 311, 375-384
- ii. S. Chowdhury, A. Deb, Md. Nurujjaman, C. Barman, Identification of pre-seismic anomalies of soil radon-222 signal using Hilbert–Huang transform, Nat. Hazards 2017, 87, 1587-1606
- iii. A. Deb, M. Gazi, C. Barman, Anomalous soil radon fluctuations – Signal of earthquakes in Nepal and Eastern India regions, J. Earth Syst. Sc., 2016, 125, 1657-1665.
- iv. Barman, C., Ghose, D, Deb, A., Detection of earthquake induced radon precursors by Hilbert Huang Transform, J. Apld. Geophys. , 2016, 133, 123-131.

**Proceedings:**

- i. S. Chowdhury, A. Deb, Md. Nurujjaman, C. Barman, Application of a Non-linear Method for Identification of earthquake-induced Anomalies in Soil Radon-222 Time Series of Sikkim Himalayan Region, First Regional Science and Technology Congress 2016, Presidency Division, Kolkata, NITTTR, 13-14 November 2016.
- ii. A. Naskar, S. Chowdhury, C. Barman, M. Gazi, B. Das, M. Mondal, A. Deb, Elevated Water Radon Level in and Around Bakreswar Geothermal Area: A Preliminary Study, 1st Regional Science and Technology Congress 2016, Presidency Division, Kolkata, NITTTR, Kolkata November 13<sup>th</sup> - 14<sup>th</sup>, 2016
- iii. A. Naskar, M. Gazi, S. Chowdhury, J. Akhter, M. Mondal, A. Deb, C. Barman, Assessment of Health Hazards due to Water Radon around Bakreswar Area, Management of Environmental Pollution in Context of the Growing Industries (MEPCGI-2017), 10-11 February 2017.
- iv. S. Chowdhury, A. Deb, M. Gazi, A. Naskar, C. Barman, D. Ghose, B. Sinha, Soil Radon-222 Measurement around Bakreswar Geothermal Region of West Bengal and Jharkhand – Health Concerns, Management of Environmental Pollution in Context of the Growing Industries (MEPCGI-2017), 10-11 February 2017.
- v. A. Naskar, M. Gazi, S. Chowdhury, J. Akhter, M. Mondal, A. Deb, C. Barman, Assessment of Health Hazards Due to Water Radon around Bakreswar Area, Management of Environmental Pollution in Context of the Growing Industries (MEPCGI-2017), 10-11 February 2017.

- vi. S. Chowdhury, A. Deb, M. Gazi, A. Naskar, C. Barman, Soil Radon Exhalation Studies around Thermal spring Area of West Bengal, Twists and Turns in Physics Research (TTPR-2017), 21-22 February 2017.
- vii. A. Naskar, M. Mondal, A. Deb, Water radon Distribution around Susunia Area in Bankura, Twists and Turns in Physics Research (TTPR-2017), 21-22 February 2017.

**5. Collaboration:**

- a. Collaboration with “VECC Pre-Seismic Geo-Chemical Monitoring Lab “
- b. Jadavpur – N.I.T. Sikkim Collaboration  
Earthquake precursor study using soil-radon anomaly

**WATER RESOURCES ENGINEERING**

Phone : + 91-33-2414-6161  
 Int. : 2457 2485  
 Director.: Prof. Asis Mazumdar  
 E-mail : dir.waterresource@jadavpuruniversity.in

**1. A. Courses Offered:**

<b>Programme</b>	<b>Level of Study</b>	<b>Total No. of Students</b>	<b>Year of Commencement</b>
4 Semester M.E. (Water Resources and Hydraulic Engineering)	Postgraduate	18 per year [GATE: 10(Gen)+ 3(SC/ST) Sponsored: 5]	2003(Approved by AICTE in 2003)
6 Semester M.E. (Water Resources and Hydraulic Engineering)	Postgraduate	18 per year [All Self Sponsored]	2011(Approved by AICTE in 2010)
Ph.D.(Engineering /Science)	Doctoral	19 (at present)	1987

**1. B. Number of Faculty Members :** Five (6) : 4 (Permanent) + 1 (Contractual) + 1 (Professor Emeritus)

**2. A. Area of Research Activities:** (Broad Areas)

1. Development of Model for Arsenic Sludge Safe Disposal
2. Artificial Recharging of Aquifer
3. Limnological Study with special emphasis on Thermal Stratification in Turbulent Structure

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4. Riverine Bank Stability Analysis
5. Soil Moisture Conservation
6. Soil Water Plant Relationship
7. Surge Profiles for Water Intake Pump System of a Thermal Power Plant
8. Sedimentation Transport Mechanism
9. Fluvial Hydraulics
10. Impact of Forested Watershed on Stream Flow and Water Quality
11. Impact of Leaching from Municipal Solid Waste Dumping Station on an Urban Watershed
12. Pressure Transients Analysis in a Metro City Water Supply System
13. Simulation and Water Assessment of Indian River Basins with Distributed and Lumped Modeling
14. Artificial Neural Network Analysis (ANN) for Riverine and Channel Flow Systems
15. Groundwater Flow Simulation by Ground Water Modeling System (GMS) and insitu Validation by Vertical Electrical Sounding (VES)
16. Development of Low Cost Model for Filtration Unit in a Rural Community
17. Impact of Climate Change on Water Resources
18. Urban Hydrology including Storm Drainage
19. Rainwater Harvesting
20. Irrigation and Drainage Development Plan
21. Sewer Transport System
22. River Basin Development
23. Wetland Management and Development
24. Investigation of Feasibility of Inland Water Transport
25. Development of Alternative Energy Sources, e.g., Tidal Power, Pump Storage Plants, Micro Hydel Plants etc.
26. Investigation of the Drinking Water Supply System.
27. Investigation of the Contamination of Groundwater Sources in West Bengal
28. Design and Development of Source and Water Intake System for Drinking Water Supply and Treatment Plant.
29. Development of Low Cost Potable Water Supply System
30. Watershed Management
31. Initiation of Benchmarking of Irrigation Projects for Performance Improvement
32. Study of Travel of Pollutant from on Site Sanitation Leach Pits

**2. B. Major Research Project/Consultancy Project: (Departmental/Individual-Name of the Project-Funding Agency)**

Departmental-Energy Efficient Community Based Water And Wastewater Systems For Deployment In India-Department Of Science & Technology (DST), Govt. Of India (IMRC Division) Under The Framework Of India-European Union Science & Technology Cooperation Agreement

Departmental-Proof Checking of STP, LS and Sewerage Network for Halisahar Municipal Town -Simplex Infrastructures Limited

Departmental–Environmental Impact Assessment For The Proposed Elevated Corridor From E.M.By-Pass To New Town–West Bengal Housing Infrastructure Development Corporation Ltd.

Departmental–Environmental Impact Assessment For The Proposed Agro-Information Park And Eco-Cultural Experimental Park On The Eastern Side Of E.M. Bye Pass Opposite Silver Spring Housing Complex–Kolkata Municipal Corporation

Departmental–Feasibility Study regarding Canopy Walk at Sundarban Wild Animals Park, Jharkhali, South 24 Parganas–West Bengal Zoo Authority Govt. of West Bengal

Departmental–Monitoring of grossly polluting Industries (GPIs) discharging into the river Ganga and its tributaries for compliance verification–Central Pollution Control Board, Ministry of Environment, Forest & Climate Change, Govt. of India

Departmental–Performance Monitoring And Evaluation Of Arsenic Removal Unit (ARU)–Public Health Engineering Department, WSSO, Govt. of WB

Departmental–Research Project on Fecal Sludge Management- Optimization of Pit Life Extender–Water For People India

Departmental–Assessment of the quantum of silt dredged out from the pre-identified demarcated area of Settling Tanks (80,000 m<sup>3</sup>) through pre and post measurement and monitoring of the measurement methodology adopted and random verification thereof.–Kolkata Municipal Corporation, IGWTP, WSD, Govt. of WB

Departmental–Analysis of sediment transport mechanism in connection to reservoir life and dam safety under “Energy, Environment and Climate Change–University with Potential for Excellence (UPE) – Phase II”, UGC

**3. A. Invited Lecturers Delivered/Sessions Chaired:(Name of the teacher–Type of participation–Name of the Seminar Conference etc.–Place–Duration)**

Prof. Asis Mazumdar–Ph.D. Thesis examination –Mr. Ronjon Chackraborti, a Ph.D Scholar who have been jointly guided with **Prof. Dr.- Ing. Martin Jekel, Institute of Technical Environmental Protection, Department of Water Quality Control, Technical University of Berlin, Germany** and the degree has been awarded in 2017 –Technical University of Berlin, Germany.–2017

Prof. Asis Mazumdar–Invited lecture delivered–104<sup>th</sup> Indian Science Congress, Engineering Science Section–Sri Venkateswara University, Tirupati–January 3, 2017

Prof. Asis Mazumdar–Invited lecture delivered–National Productivity Week Celebration from Waste to Profits through Reduce, Recycle and Reuse–Hotel Golden Park–February 15, 2017

Prof. Asis Mazumdar–Invited Speaker–UGC sponsored National Seminar on Environmental Awareness: Demand of the day–Dept. of Environmental Sciences, University of Calcutta–September 9, 2017

Prof. Asis Mazumdar–Session Chaired–Session in RSC 2016 for Mechanical Science (Mechanical Engineering, Civil Engineering, Aerospace Engineering & Applied Mechanics and Mechatronics & Robotics–IEST, Shibpur–23<sup>rd</sup> August, 2016

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Prof. Asis Mazumdar–Inaugural addressed–Workshop on Water and Wastewater-Sustainable Management–NEERI, Chennai–30<sup>th</sup> March, 2017

Prof. Asis Mazumdar–Invited lecture delivered–Application of Integrated Water Resource Management: A Case Study ECO-India Project–NEERI, Chennai–30<sup>th</sup> March, 2017

Dr. Pankaj Kumar Roy –Invited lecture delivered–Introduction Training of Newly Recruited ISGP Programme Staff (Rural Engineering Mentor)–ICMARD–3<sup>rd</sup> March, 2017

Dr. Pankaj Kumar Roy–Invited lecture delivered–Environment and Disaster-Protection & Practices–NIT, Agarpara–30<sup>th</sup> March, 2017

Dr. Pankaj Kumar Roy—Invited lecture delivered–Training Course for Audit Officers related to Soil and Environment–RTI, Kolkata, Indian Audit & Accounts Dept.–2nd Jan, 2017

Dr. Pankaj Kumar Roy–Invited lecture delivered–Refresher Course sponsored by CPHEEO–IPHE, India–14th Feb, 2017

Dr. Pankaj Kumar Roy—Invited lecture delivered–Seminar on Plumbing Hydraulics–JISEngineering College –25 and 26th June, 2016

Dr. Pankaj Kumar Roy–Invited as Speaker (Resource Person)–Society of Civil Engineers, Jadavpur University Dept. of Civil Engg, JU–10th Sept. 2016

Dr. Pankaj Kumar Roy –Invited lecture delivered–Seminar for Teachers Upgradation–Techno India College of Technology–19th March, 2016

Dr. Pankaj Kumar Roy –Invited lecture delivered–UGC-Sponsored Refresher Course on Current Environmental Issues: Impact, Measurement and Mitigation–School of Environmental Studies, JU –13th January, 2017

**3. B. Seminar/Workshop/Conference/Symposium Attended: (Name of the teacher–Name of the paper presented (if any)–Name of the Seminar–Place–Duration**

Dr. Pankaj Kumar Roy–Decentralized Integrated Approach of Water & Wastewater Management in Rural West Bengal–International Conference on Innovation in Sustainable Water and Wastewater Treatment Systems –YASHDA, Pune–April 21-23, 2016

Dr. Pankaj Kumar Roy -Workshop on Initiatives in Outcome Based Education and NBA Accreditation– Hotel Hyatt–March 6-8, 2017

Dr. Pankaj Kumar Roy -State Level Workshop on Environmental and Social System Assessment– ISGPP, Govt. of West Bengal–15th December, 2016

Dr. Pankaj Kumar Roy–Risk Assessment of Dietary Intake of Arsenic– 1st Regional Science & Technology Congress-2016–DST, Govt. of West Bengal & NITTR, Kolkata–13-14 Nov. 2016

Dr. Subhasish Das-22nd Indian Plumbing Conference (Theme: Sustainable Plumbing for a Healthy Society)Milan Mela, Kolkata–25 – 26th November, 2016

Dr. Subhasish Das-Workshop on Outcome Based Education and NBA Accreditation organised by JU and sponsored by TEQIP-II–Hyatt Regency, Kolkata–6 – 8th March, 2017

Dr. Rajib Das-22nd Indian Plumbing Conference (Theme: Sustainable Plumbing for a Healthy Society)–Milan Mela, Kolkata–25 – 26th November, 2016

Dr. Rajib Das-Workshop on Outcome Based Education and NBA Accreditation organised by JU and sponsored by TEQIP-II–Hyatt Regency, Kolkata



**4. A. Books/Monographs etc. Published:(Name of the Teacher–Name of the Book–Name of the Publisher)**

Dr. Pankaj Kr. Roy (Co-author)–Sustainable Smart Cities in India: Challenges and Future Perspectives (book chapter)–Springer Publisher

Dr. Rajib Das and Dr. Subhasish Das,(Co-author: Dr. Anasua Sarkar and K. Mahata–Ch-Indian River Watershed Image Analysis using Fuzzy-CA hybrid approach.

Dr. Rajib Das and Dr. Subhasish Das,(Co-author: Dr. Anasua Sarkar and K. Mahata–Book-Intelligent Analysis of Multimedia Information, Chap. 8, pp. 232-246. (2016) –IGI Global: USA. DOI: 10.4018/978-1-5225-0498-6.ch008

Dr. Rajib Das and Dr. Subhasish Das,(Co-author: Dr. Anasua Sarkar and K. Mahata)–Ch-Fuzzy evaluated quantum cellular automata approach for watershed image analysis.

Dr. Rajib Das and Dr. Subhasish Das,(Co-author: Dr. Anasua Sarkar and K. Mahata)–Book-Quantum Inspired Computational Intelligence Research and Applications, Chap. 8, pp. 259-284. (2016) Elsevier: USA. DOI: 10.1016/B978-0-12-804409-4.00008-5.

Dr. Subhasish Das and Prof. Dr. Asis Mazumdar (Co-author: B. Mukherjee)–Sustainable Electrical Energy Generation Technique in Shallow Water Channels, Proceedings of the 2016 IEEE Students' Technology Symposium organized by IIT Kharagpur, India, 30 Sep.-02 Oct., 2016, pp. 147-151. (2016)–DOI: 10.1109/TechSym.2016.7872672

Dr. Rajib Das and Dr. Subhasish Das,(Co-author: Dr. Anasua Sarkar and K. Mahata)–Ch-Watershed Image Analysis using PSO-CA Hybrid Approach.–Book-Hybrid Intelligent Techniques for Pattern Analysis and Understanding, Chap. 10. (2017)–CRC Press, Taylor & Francis Group.

**4. B. Articles Published in Journals: (Name of the teacher–Co-authors–Name of the Article–Name of the Journal–Volume (no.) and Page no.–Date of publication)**

**International**

Pankaj Kumar Roy, Asis Mazumdar–S. Banerjee–Application of computational fluid dynamics in the analysis of aquifer response during pumping–Indian Journal of Environmental Protection – 37(2),93-102–2017

Pankaj Kumar Roy,–S. Chaudhuri, S. Halder, S. Hossain, G. Banerjee and J. Debbarmann–Developing a Correlation for Estimation of Aquifer Layer Using Resistivity Survey with Lithological Logs in Critical Terrain Condition–Asian Journal of Water, Environment and Pollution,–14(1), 9–17.–2017

Pankaj Kumar Roy–T.K. Debnath, M. Pal, & J. Pal–Analysis of Physical Composition of Municipal Solid Waste of Agartala City –International Research Journal of Advanced Engineering and Science–Vol. 2 (1), 87-89–2017

Pankaj Kumar Roy,–M. Ghosh–Chlorine resistant bacteria isolated from drinking water treatment plants in West Bengal–Desalination and water treatment–79,103-107–2017

Subhasish Das and Rajib Das–PK. Maity–Assessment of Groundwater Quality and Saline Water Intrusion in the Coastal Aquifers of Purba Midnapur District, West Bengal, India–Indian Journal of Environmental Protection–Vol. 37, No. 1, pp. 31-40–2017



- Subhasish Das and Asis Mazumdar –B. Mukherjee–Stress analysis of smart support system for a steam pipeline of Sagardighi Thermal Power Plant, West Bengal, India. –International Journal of Innovative and Emerging Research in Engineering, –Vol. 4, Issue 1, pp. 137-146. –2017
- Subhasish Das and Rajib Das –P.K. Maity–Methodology for Groundwater Extraction in the Coastal Aquifers of Purba Midnapur District of West Bengal in India under the Constraint of Saline Water Intrusion. –Asian Journal of Water, Environment and Pollution,–Vol. 14, No. 2, pp. 1-12. DOI: 10.3233/AJW-170011.– 2017
- Subhasish Das and Asis Mazumdar –H. Jaman and A. Kuila–Hydrodynamic flow patterns around three inline eccentrically arranged circular piers. –Arabian Journal for Science and Engineering, Springer–Published online. DOI: 10.1007/s13369-017-2536-9].–2017
- Subhasish Das and Rajib Das and Asis Mazumdar –H. Jaman and A. Chatterjee–Hydrodynamic behaviour of flow past three typically arranged circular piers on different horizontal planes.– International Journal of Fluid Mechanics Research, accepted–accepted–2017
- Pankaj Kumar Roy–M. Pal, N. R. Samal, M. B. Roy–Modelling of diurnal profile of surface air temperature and surface dissolved oxygen of lake water–Current Science ISSN-00113891–Vol.111, No.5, 882-885–2016
- Pankaj Kumar Roy–M. Pal, N. R. Samal, M. B. Roy–Fresh water lake water model application for seasonal variation Of Latent And Sensible Heat Fluxes From The Water Surface of Rudrasagar, Lake, Tripura– Imperial Journal of Interdisciplinary Research(IJIR), ISSN 2454-1362–Vol-2, Issue-5, 1306-1310–2016
- Pankaj Kumar Roy, A. Mazumdar–J. Pal, M. Pal–Strength Assessment of Neer Mahal Palace: A Historical Masonry Structure on Rudrasagar Lake, India–ARPN Journal of Engineering and Applied Sciences–11 (1), 699-705–2016
- Pankaj Kumar Roy, A. Mazumdar–J. Pal, M. Pal–A Study on Mitigation Measures for the Development of Neermahal Palace and Surrounding Rudrasagar Lake Area in Tripura, India –International Journal of Applied Engineering Research,–11 (4), 2615-2619–2016
- Pankaj Kumar Roy, A. Mazumdar–J. Pal, M. Pal–Water Quality Index for Assessment of Rudrasagar Lake Ecosystem, India–International Journal of Engineering Research and Applications–6 (1), 98-101–2016
- Pankaj Kumar Roy, A. Mazumdar–J. Pal, M. Pal–Quantitative Assessment of Water of Rudrasagar Lake, Tripura, India European Journal of Advances in Engineering and Technology–3 (3), 45-48–2016
- Pankaj Kumar Roy, A. Mazumdar–S.Pal, G. Banerjee, R. Chakraborti –Integrated, Sustainable and Eco-friendly surface and groundwater management in an arsenic affected rural area of West Bengal, India– International Journal of Environmental Engineering–Vol. 3 (1), 60-63–2016
- Pankaj Kumar Roy–D. Chatterjee, A. Kumar, M. B. Roy –Participation and Dependency of Forest Dwellers in Forest Management- A Comparative Study of Bankadhaha and Neora Valley Forest– Indian Journal of Environmental Protection–36(12),978-985–2016

Pankaj Kumar Roy–M. B. Roy, D. Chatterjee, T. Mukherjee –Environmental threat to wetland biodiversity on migratory bird: a case study of peri-urban area of West Bengal–Asian Journal of Current Research–1(1) 30-38 –2016

Pankaj Kumar Roy–J. Debbarma, S. Halder, G. Banerjee & M. Pal–Estimating Groundwater Volumetric Mass Balance with Hydraulic Head using Groundwater Modeling System in Tripura, India–Asian Journal of Current Research–1(1), 19-29–2016

Pankaj Kumar Roy, Arunabha Majumdar–S. Ray–Quality of packaged drinking water in Kolkata City, India and risk to public health–Desalination and water treatment–57(59):1-9–2016

Pankaj Kumar Roy, Arunabha Majumdar–M.Ghosh, D. Kumar–Disinfection of water by various techniques – comparison based on experimental investigations–Desalination and water treatment–57(58):1-10–2016

Subhasish Das and Rajib Das and Asis Mazumdar–M. Nayek and P. Dutta–Open Channel Discharge Measurement Using 0.127 Metre (5 Inch) Long-Throat Flume.–Asian Journal of Water, Environment and Pollution–Vol. 13, No. 2, pp. 29-38. DOI: 10.3233/AJW-160014.–2016

Subhasish Das and Rajib Das and Asis Mazumdar–M. Nayek and P. Dutta–Design and Analysis of 0.127 m (5") Cutthroat Flume–Ain Shams Engineering Journal, Elsevier, published online–DOI: 10.1016/j.asej.2015.07.017.–2016

Subhasish Das, Rajib Das and Asis Mazumdar–Comparison of Local Scour Characteristics around Two Eccentric Piers of Different Shapes. –Arabian Journal for Science and Engineering, Springer–Vol. 41, No. 4, pp. 1193-1213. DOI: 10.1007/s13369-015-1817-4.–2016

## **National**

Pankaj Kumar Roy, & Asis Mazumdar –P. Adhikary & S.Kundu –Small Hydro Plant Planning and Development: A Case Study on Renewable Energy Project Modelling and Simulation–IAHS Journal–5 (1), 3-7–2016

Pankaj Kumar Roy, & Asis Mazumdar–M.B. Roy, N.R.Samal –A Comparative Study of Labour Participation in Three Wetland Regions of West Bengal, India–J. Inst. Engg. India Ser. A–97(2), 81-91–2016

Subhasish Das and Rajib Das and Asis Mazumdar–H. Jaman–Hydrodynamics of flow obstructed by inline and eccentrically-arranged circular piers on a horizontal bed surface.–Journal of The Institution of Engineers (India): Series A, Springer–published online. DOI: 10.1007/s40030-017-0187-1].–2017

## **5. Collaborative Programmes:**

- i. School of Water Resources Engineering, Jadavpur University has been carrying out **EU-India Research Project** under the **Framework FP 77** on Water Sector with Seven EU Partners and two Indian Partners where Prof. Asis Mazumdar is the Coordinator of Indian Consortium.
- ii. School of Water Resources Engineering, Jadavpur University has been empanelled by National River Conservation Directorate (NRCD) Under Ministry of Environment & Forests & Climate Change, Govt. of India as Consultant Institute (CI) for undertaking evaluation of DPRs for projects related to National Ganga River Basin Authority (NGRBA)/National River Conservation Plan (NRCP).

- iii. School of Water Resources Engineering, Jadavpur University has been entrusted by National River Conservation Directorate (NRCD) under Ministry of Environment & Forests & Climate Change, Govt. Of India for undertaking evaluation of the work as Third Party Inspection (TPI) Agency for River Front Development (RFD) and Electric Crematorium (EC) Works under NGRBA for the Eastern and North Eastern States.

## **6. Major Achievements:**

### **Prof. Asis Mazumdar**

- i. Mr. Ronjon Chackraborti, a Ph.D Scholar who have been jointly guided with **Prof. Dr.- Ing. Martin Jekel, Institute of Technical Environmental Protection, Department of Water Quality Control, Technical University of Berlin, Germany** and the degree has been awarded in 2017 by the Technical University of Berlin, Germany.
- ii. External Member of the Ph.D. Committee of the Department of Civil Engineering, IEST, West Bengal.
- iii. Member, Arsenic Task Force, Govt. of West Bengal.
- iv. Member of the Governing Body, Indian Plumbing Skill Council.
- v. Chairman of State Expert Appraisal Committee (SEAC), Govt. of Mizoram, Aizawl selected by Ministry of Environment, Forests & Climate Change, Govt. of India through its notification in the Gazette of India, Extra ordinary dated April 30, 2015.
- vi. Chairman, Indian Plumbing Association, Kolkata Chapter
- vii. Member of Corporation Level Authority on Groundwater Resources Development, Kolkata Municipal Corporation
- viii. Member of the National Expert Committee, Green Technology Watch Group (GTWG), Govt. of India, Department of Science & Technology
- ix. Regular reviewer of many reputed international and national journals

### **Prof. Arunabha Majumder**

- i. Member, Arsenic Task Force, Govt. of West Bengal
- ii. Member, Fluoride Task Force, Govt. of West Bengal
- iii. Member, Sanitation Task Force, Govt. of West Bengal
- iv. Member, Advisory Group, Water Technology Initiatives, Ministry of Science & Technology, Govt. of India.

### **Dr. Pankaj Kumar Roy**

- i. Regular reviewer of many reputed international and national journals.
- ii. Member of Individual Research Committee for Ph.D. in Civil Engineering Department, IEST, Shibpur.
- iii. Member of Individual Research Committee for Ph.D. in Civil Engineering Department, Jadavpur University
- iv. Member of Individual Research Committee for Ph.D. in Architectural Department, Jadavpur University
- v. Member of School Research Committee of School of Environmental Studies
- vi. Life Member- No. L28414, The Indian Science Congress Association in 2016
- vii. Invited to serve as Coordinator for 64th Orientation Program organized by UGC-HRDC, JU during the period between February 6 to March 4, 2017 at UGC-HRDC, Salt Lake Campus, Jadavpur University.

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- viii. Service rendered as an Interviewer and Member in the team for Scholar Selection under PURSE Phase-II awarded by the DST to JU on 2016.
- ix. Member of Purchase Committee of ISLM, JU
- x. Member of Organizing Committee of TEQIP sponsored training program

**WOMEN'S STUDIES**

Phone : + 91-33-2414-6531/6014  
Telefax : +91-33-2414-6531  
Int. : 2457-2445/2165/2872  
Director. : Dr. Aishika Chakraborty (Sept. 2014-Aug.2016)  
Prof. Samita Sen (Since Sept.2016)  
Jt.Director : Ms Nandita Dhawan  
E-mail : swsju@rediffmail.com/swsju@yahoo.com  
director.sws@jadavpuruniversity.in

**A. Courses Offered: (Name of the Course, Duration of Courses, No. of Students Enrolled)**

**i) Name of the Course: Ph.D in Women's Studies**

**No. of Students:** There were only two students enrolled for Ph.D in 2006, the number has risen to 33 in 2015-16. In 2016-17, the School has registered 4 Ph.D students. Six students have been awarded their degrees and one of them has submitted the thesis and will appear for his viva-voce in the coming months.

**ii) Name of the Course: M. Phil in Women's Studies**

**Duration of the Course:** 2 years

**No. of Students:** 18

**iii)**

**a) Name of the Course: Extra Departmental Course (ED Course) in Women's Studies**  
(offered to BA students of Jadavpur University since July 2010)

**Duration of the Course:** 6 months (3<sup>rd</sup> semester/ED 3.19) (Teaching period: July-Dec. 2016)

6 months (4<sup>th</sup> semester/ED 4.32) (Teaching period: Jan-May 2017)

**Number of Students:** 49 (3<sup>rd</sup> semester) + 39 (4<sup>th</sup> semester)

**b) Name of the Course: Extra Departmental Course (ED Course) titled ‘A New Femininity: Rabindranath Then and Now’ (ED 4.31)** (designed by the School of Women’s Studies, Jadavpur University and offered by the Rabindranath Studies Centre at the Faculty of Arts)  
**Duration of the Course:** 6 months (ED 4.31) (Teaching period: Jan-May 2017)  
**Number of Students:** 61 undergraduate students

**B. Number of Faculty/Staff Members:** 1 Professor in Women’s Studies, 1 Associate Professor, 4 Assistant Professors [1 (Permanent) + 3 (Contractual)], 1 Coordinator, Teaching and Learning Materials (Contractual), 1 Research Associate (Contractual), 1 Senior Research Officer, 1 Publication Officer, 1 Senior Assistant, 1 Peon to Senior Research Officer, SWS, JU.  
**Staff (Contractual) Employed for the Year 2016-2017:** 1 Professional Assistant, 1 Library Assistant, 1 Data Entry Operator, 2 Attendants.

**Project Staff:** 1 District Coordinator (CHILDLINE Project), 1 Project Coordinator (AJWS Project), 4 Research Assistants (AJWS Project— 3 Full-time+ 1 Part-time), 3 NET/SRF Fellows, 5 Rajiv Gandhi National Fellows (Ph.D), 1 NET/JRF Fellow.

**Faculty/Staff Profiles (April 2016-March 2017)**

1. **Name:** Samita Sen
2. **Designation:** Professor
3. **Years in School of Women’s Studies:**

From	To	Designation
2006		Professor

**4. Teaching (April 2016-March 2017):**

**a. School of Women’s Studies:**

Name of Programme	Name of Course/s	No. of Classes or Lectures
E.D. (B.A.)	Exploring the Family	5
	Women and Law	11
M.Phil	Research Methodology	2
	Cultural Construction of Gender	3
	Feminist Thought (CC1)	12
Ph.D	Research Methodology	2

**b. Course coordination:**

Period	Institution	Name of Programme	Name of Course/s
Ph.D	SWS, JU	Ph.D	Programme

5. **Supervision:**
- | Name of the | Department/Institution | Completed | Ongoing |
|-------------|------------------------|-----------|---------|
|-------------|------------------------|-----------|---------|

**Annual Report 2016-17**

<b>Course</b>			
M.Phil	SWS, JU	NA for this period	5
Ph.D	SWS, JU (CU-1;Goettingen University-1 under Erasmus Mundus programme)	2	7

**6. Workshops/Conferences/Lectures/Seminars:**

**a. National:**

- Paper presented titled ‘Politics of Informality: Auto-rickshaw Operators’ Unions’ at the National Conference, “Negotiating Globalization: Trade Unions and Labour in Contemporary India”, Institute of Development Studies, Kolkata, 22-23 September, and ‘Domestic Workers in Contemporary Kolkata’ at a Workshop, “Choice, Constraints and Gender Dynamics of Labour Markets in West Bengal”, Centre for Studies in Social Sciences, Calcutta, 7 November, 2016.
- National Seminar, “Gender as a Perspective: Reflection on Different Disciplines”, Sivnath Sastri College and Mahanirban Calcutta Research Group, 19 December, 2016.
- Paper presented on ‘Gender, Informality and Law’ at a panel on “Women and Law” at the National Conference, Indian Association for Women’s Studies, University of Madras, Chennai, 22-25 January, 2017.
- Presentation on ‘Child Labour and Rights’ at a Meeting, “Understanding Girl’s Lives: Contexts, Constraints, Possibilities”, 27 February, 2017.

**b. International:**

- Keynote Address on ‘Women and Empowerment’, International Seminar, “Empowering Women to Lead Change”, ICFAI University, Tripura, 23-24 June 2016.
- ‘Domestic Workers: Informality, Flexibility and Mobility’, paper presented at International Conference, “Between the State and the Site of Production: The Making of Informal Labour Relations”, TISS, Mumbai (in collaboration with ICAS), 26-27 September, 2016.
- ‘Organised Informality: Auto-rickshaw Drivers in Kolkata’, Lecture delivered at CeMIS, Goettingen, Germany, 25 November 2016.
- ‘Impossible Immobility: Marriage, Migration and Trafficking in Bengal’, paper presented at Conference on “Critical Migration Studies”, University of Oldenburg, Germany, 28 November 2016.
- ‘Gender, Migration and Trafficking: Case of Assam Tea Plantations’, Lecture, Workshop on “Migration for Institut fur Anglistik and Amerikanistik Aebeitsstelle”, University of Oldenburg, Germany, 30 November 2016.
- Paper presented on ‘Slavery, Servitude and Domestic Work’ at the International Conference, “Servants’ Pasts, 16<sup>th</sup> to 20<sup>th</sup> Century”, Delhi, 16-17 February, 2017.

**Lectures/Speeches Delivered:**

- Lecture on ‘Gender and History’ at a Research Methodology Workshop on “Cultural Politics, Identities and Gender”, School of Women’s Studies in collaboration with Sachetana, School of Women’s Studies, Jadavpur University, 1 April 2016.
- Refresher Course, Gauhati University, 2-3 September, 2016.
- On National Education Day, Bharatratna Maulana Abul Kalam Azad commemorating his birth anniversary, Department of Education, Jadavpur University, 11 November 2016.



- ‘Gender and Migration in Historical Perspective’, Lecture delivered at the Centre for Development Practice and Research, Tata Institute of Social Sciences, Patna, 13 December 2016.
- Inaugural Speech, Bijoy Krishna Girls’ College, Howrah, 16-17 December, 2016.
- Moderated discussion at Workshop, ‘Border, Violence and Challenges to Identities’, Maulana Abul Kalam Azad Institute of Asian Studies (MAKAIAS), 20-23 December 2016.
- Lecture, ‘Short-Term Course on Research Methods’, Department of Economics, Jadavpur University, 9-14 January, 2017.
- Moderated discussion at a panel on ‘Women’s Studies’ at the National Conference, Indian Association for Women’s Studies, University of Madras, Chennai, 22-25 January, 2017.
- Keynote lecture delivered at the National Seminar, “Gender Equality and Women’s Empowerment in 21<sup>st</sup> Century India: Issues, Challenges and Strategies”, 10-11 February, 2017.

**7. Awards/Grants/Prizes/Research projects:**

- “Love, Law and Labour: A Project on Child Marriage in West Bengal” funded by AJWS, January 2016-2017.

**8. Membership of Committees, Professional Associations, Journal Committees, Learned Societies, Academic Bodies:**

**JU:**

Executive Council, Finance Committee, Tender Committee, Purchase Committee (University and School), Development Committee, UGC related committees, Faculty Council, Academic Committee, Admission Committee, Ph.D Committee (Faculty), SRC, Deans’ Committees, Student Welfare Committee, TEQIP Committee, Fire Safety Committee etc.

**External:**

- Member, Editorial Board, *Modern Asian Studies* (Cambridge); *Journal of Gender Studies* (CWDS, New Delhi); *Journal of History* (Jadavpur University); and Editorial Consultancy Board, *South Asian History and Culture* (Routledge).
- M.Phil Committee, South and Southeast Asia, University of Calcutta.
- Sub-Committee, Family Counselling Centre, Association for Social Health in India (W.B.).
- Governing Body, Calcutta Mahanirvan Research Centre.
- Member, Advisory Committee of various Women’s Studies Centres.
- General Body, Institute of Development Studies Kolkata.

**9. Publication:**

**a. Journal:**

**National:**

**With ISSN:**

- “Impossible Immobility, Marriage, Migration and Trafficking in Bengal”, *Economic and Political Weekly*, 51, 44-45, 5 November 2016.

**b. Others:**

- *Domestic Days: Women, Work and Politics in Contemporary Kolkata*, Oxford University Press, New Delhi, 2016 (co-authored).
- *Passage to Bondage: Labour in the Assam Tea Plantations*, Samya Publications, Kolkata, 2016 (edited and compiled).

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- *Accumulation in Post Colonial Capitalism*, Springer, Singapore, 2016 (co-edited).
- 'Dasi, Paricharika, Grihakarmi: Banglay Grihasramer Bibartan' in Gautam Neogi, Nirban Basu and Soumitra Sreemani (eds) *Itihasher Baichitra: Essays in Honour of B.B. Chaudhuri*, Bangiya Itihas Samiti, Kolkata 2017. ISBN: 978-81-91293-862-2
- 'Unionising Domestic Workers: Women and Working-Class Politics' in Indu Agnihotri and Meera Velayudhan (eds) *Women in a Changing World: Restructured Inequalities, Countercurrents and Sites of Resistance*, IAWS, 2017.

**Profile (April 2016-March 2017)**

1. **Name:** Aishika Chakraborty
2. **Designation:** Associate Professor (Director till September 2016)
3. **Years in School of Women's Studies:**

From	To	Designation
April 2013	Till date	Associate Professor
December 2013	August 2014	Joint Director
September 2014	September 2016	Director
October 2016	Till date	Associate Professor

4. **Teaching:**

a. **School of Women's Studies:**

Name of Programme	Name of Course/s	No. of Classes or Lectures
<b>ED (BA)</b>	1. Women's Studies: Concepts and Contexts II	2
	2. A New Femininity: Rabindranath Then and Now	12
<b>M.Phil</b>	1. Gender Relations in Contemporary India	5
	2. Cultural Constructions of Gender	5
<b>Ph.D</b>		3

b. **Outside School (both JU and External):**

Department/Institution	Name of Programme	Name of Course/s	No. of Classes or Lectures
Rabindranath Studies Centre	ED in Women's Studies, Concepts and Contexts	A New Femininity: Rabindranath Then and Now	10

c. **Course Coordination:**

Period	Institution	Name of Programme	Name of Course/s
July 2013-till date	SWS, JU	M. Phil (Optional Course)	Cultural Construction of Gender
May 2013-till date	SWS, JU	Ph.D Course Work	

5. **Supervision:**

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<b>Name of the Course</b>	<b>Department/Institution</b>	<b>Completed</b>	<b>Ongoing</b>
M.Phil	SWS, JU	7	
Ph.D (only registered students)	SWS, JU		5

**6. Workshops/Conferences/Lectures/Seminars:**

**a. National: (Period–Name of Conference–Title of Paper–Organizer/ Place–Role/Activity)**

3 April 2016 –Commemorating the Birth Anniversary of Ranjabati Sircar –Satyajit Ray Auditorium, ICCR, Kolkata –Special Lecture

9 April 2016 –National Conference titled ‘Women Speak Nation, Identities and Intersectionalities’ –Politics versus Performance in Tagore’s Politics of Performance –School of Women’s Studies, Jadavpur University, Kolkata –Paper Presenter

11 August 2016 –Women and Nation: Revisiting Indian Identity, Politics and Culture – Dance as Social Protest: Caste and Gender in Tagore’s Chandaliika –Mrinalini Dutta College, Birati, Calcutta –Invited Speaker

3 September 2016 –Seminar to commemorate the birth Anniversary of Manjusri Chaki Sircar –Satyajit Ray Auditorium, ICCR, Calcutta –Introductory Lecture

29-30 September 2016 –Regional Workshop on Documenting Women’s Experiences in the Movement: Issues, Experiences and Struggles –Indian Association of Women’s Studies (IAWS), Ranchi –Invited as the Executive Body Member of IAWS

8 January 2017 –‘Bharatiya Itihas O Darshane Rabindra Ganer Nritay Rup’ –Samakaleen Samaj O Rastrachintar Prekkhite Rabindranather Nritya Andolon –West Bengal Dance Group Federation, Bangla Academy –Invited Lecture

9 January 2017 –Inauguration of Mrittika, A Centre of Contemporary Dance and Research – Making of Mrittika: Ways and Challenges Ahead –Dancers’ Guild, Kolkata –Inaugural Address

25 February, 2017 –UGC Sponsored Programme on Gender and Culture –Gender, Caste and Dance –Fergusson College, Pune in Collaboration with Krantijyoti Savitribai Phule Women’s Studies Centre, Savitribai Phule Pune University Poona Centre, Pune –Invited as a Resource Person

25 February 2017 –UGC Sponsored Programme on Gender and Culture –Dancing Resistance with Tagor –St. Mira’s College, Pune in Collaboration with Krantijyoti Savitribai Phule Women’s Studies Centre, Savitribai Phule Pune University Poona –Invited as a Resource Person

15 March 2017–*Anya Ranger Radha* “Breaking Gender Stereotypes in Indian Culture” –Asansol Udaan, Sisir Mancha, Kolkata –Inaugural Address

**b. International: (Period–Name of Conference–Title of Paper –Organizer/ Place –Invited/ Selected/ Coordinated)**

16-17 December 2016 –Gender and Empowerment –Bijoy Krishna Girls’ College in collaboration with SWS, JU –Chaired the Talk by Ishita Dube

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16-17 December 2016 –Gender and Empowerment –Bijoy Krishna Girls’ College in Collaboration with SWS, JU –Chaired Students’ Presentation on Gender, Culture and Society

**c. Seminars/Conferences/Lectures/Workshops organized and coordinated at School of Women’s Studies, JU (Period –Name of Conference/Seminar –Title of Paper –Organizer/Place Role/Activity)**

8-9 April 2016–National Conference titled ‘Women Speak Nation: Identities and Intersectionalities’ –School of Women’s Studies, Jadavpur University –Organised (with Panchali Ray)

29 June 2016 –A Special Talk by Sadanand Menon –‘Chandralekha-Breaking Free to Counter the Nationalist Narrative in Dance’ –School of Women’s Studies, Jadavpur University in Collaboration with Department of Comparative Literature, Jadavpur University –Organised

12 July 2016 –Seminar by Ifrah Butt and Natasha Rather –‘Women, Citizenship and State: Reference Kashmir’ –School of Women’s Studies in Collaboration with Women against Sexual Violence and State Repression –Organised the Seminar

8 August 2016–Two Special Lectures by Dolores Chew and Piya Chatterjee –School of Women’s Studies, Jadavpur University –Organised

29 March 2017 –Ranjabati Sircar Memorial Lecture By Lakshmi Subramanian –‘Music Histories Past and Present: Some Reflections’ –School of Women’s Studies, Jadavpur University –Organised

**7. Refresher Course/Orientation Course: (Period–Institution–Title of Course –Coordinator/ Participant)**

3 June 2016 –Burdwan University –7th Refresher Course in Women’s Studies –Invited as a Resource Person

11 August 2016 –Mrinalini Dutt Mahavidyalaya in collaboration with School of Women’s Studies, Jadavpur University –Women and Nation: Revisiting Indian Culture, Politics and Identity –Resource Person

23 November 2016 –Department of Law, Calcutta University –Human Rights and Social Justice –Resource Person at the Refresher Course. Delivered a Lecture on ‘PINK: Revisiting the Debate on Consent and Marital Rape’

**8. Outreach and Extension Activities (Period –Institution –Title of Course –Coordinator/ Participant)**

2016 April-2017 March –EC member of IAWS

13 May 2016 –Rabindra Bharati University –Workshop on New Frontiers of Research in Contemporary World –Resource Person

**Research Projects**

**Project Ongoing**

- 1. Bengal Breaks Through: History, Legacy and the Politics of Gender in Indian Dance**  
Funded by **India foundation for Arts** (IFA, Bangalore) November 2015- April 2017

**Arts Research Programme:**

### **Annual Report 2016-17**

For research into the history of contemporary dance in Bengal, through the journeys of feminist dancer-choreographers Manjusri Chaki Sircar and Ranjabati Sircar. Focusing on the social, political and personal histories of the dancers, the study will explore their interventions in the practice as they drew from medieval inheritances, colonial legacies and postcolonial promises to create new languages for dance.

- Carried out extensive research and field work at
  - a. Chidambaram, Chennai, June, 2016
  - b. Kalaskhetra Foundation, Chennai, June, 2016
  - c. SPACES, Chennai, June, 2016
  - d. National Centre of Performing Arts, Mumbai, February-March 2017
  - e. Kadamb Centre for Dance and Music (March 2017)
  - f. Visva-Bharati, Santiniketan, March 2017

### **9. Membership of Committees, Professional Associations, Journal Committees, Learned Societies, Academic Bodies:**

#### **JU:**

1. Editor, *Newsletter of School of Women's Studies*, Jadavpur University (from September 2014-September 2016)
2. Editorial Board, *Silver Jubilee Volume*, School of Women's Studies, Jadavpur University
3. Doctoral and Research Committee, School of Women's Studies, Jadavpur University
4. Publication Committee, School of Women's Studies, Jadavpur University
5. Member of the Working Committee of *Tagore Cultural Centre*, Jadavpur University

#### **External:**

1. Editorial Committee, *The Other Universe, Anthology on Women's Studies*, Lady Brabourne College
2. Member of the Syllabus Committee, Diamond Harbour Women's University, Kolkata
3. Member of the Syllabus Committee, Department of Performing Arts, Presidency University, Kolkata
4. Reviewer of Internal Journal on Dance Studies (JEDS)
5. Reviewer of papers presented at International Conference of World Dance Alliance, 2015-2016

#### **Association with Learned Societies/Performing Institutions/Academic Bodies**

1. Life Member and Member of the Executive Committee, **Indian Association of Women's Studies**
2. Member of the Executive Committee, **Dancers' Guild**, Kolkata
3. Life Member, **Indian History Congress**
4. Member of **International Federation of Theatre Research**
5. Member of **World Dance Alliance, Asia Pacific**
6. Ex-Member of **Society of Dance History Scholars** and **Congress on Research in Dance (USA)**
7. Member of **Sachetana**, NGO, A Woman's Organization, Kolkata
8. Resource person, **Kolkata Sanved in collaboration with Tata Institute of Social Sciences**, Mumbai

9. Reviewer of **JEDS, Journal of Emerging Dance Scholarship**, World Dance Alliance

**10. Publication:**

**Chapter in a Book**

**International**

1. “Dancing against the Nation? Revisiting Tagore’s Politics of Performance”, K.L. Tuteja and Kaustav Chakraborty ed., *Tagore and Nationalism*, Springer, 2017.

**11. Any Other Activities (Extension/Outreach): (Period–Organisation–Type of Activity–Role in Activity)**

January 2016-till date –Indian Association for Women’s Studies –Organizing Annual Conference of IAWS, 19-23 January 2017–Executive Body Member

13 May 2016–Rabindra Bharati University–Workshop on New Frontiers of Research in Contemporary World–Resource Person

11 August 2016–Mrinalini Dutt Mahavidyalaya in collaboration with School of Women’s Studies, Jadavpur University –Collaborative Support to Organize a Day Long Workshop–Resource Person

25 February 2017–UGC Sponsored Programme on Gender and Culture–Delivered Lectures at Fergusson College and St. Mira’s College in Collaboration with Krantijyoti Savitribai Phule Women’s Studies Centre, Savitribai Phule Pune University, Poona Centre, Pune–Resource Person

**Profile (April 2016-March 2017)**

1. **Name:** Nandita Banerjee Dhawan
2. **Designation:** Assistant Professor
3. **Years in School of Women’s Studies:**

From	To	Designation
September 2012	Till date	Assistant Professor
March 2007	August 2012	Project Coordinator, Rosa Luxemburg Stiftung project
October 2004	February 2007	Research Assistant

**4. Teaching (April 2016-March 2017):**

**a. School of Women’s Studies: (Name of Programme–Name of Course/s–No. of Classes or Lectures)**

<b>E.D.(B.A.)–Women’s Studies: Concepts and Contexts I–</b>	16
Women’s Studies: Concepts and Contexts II–	09
<b>M.Phil</b> Research Methodology (CC102)–	01
Feminist Thoughts and Practices: An Introduction (CC201)–	12
(CC1)	12
<b>Ph.D</b> Research Methodology	01

**c. Course coordination:(Period–Institution–Name of Programme–Name of Course/s)**



June 2016- December 2016–School of Women’s Studies, Jadavpur University–M.Phil in Women’s Studies–Research Methodologies (CC102)

January 2017-present–School of Women’s Studies, Jadavpur University–M.Phil in Women’s Studies –Feminist Thoughts and Practices: An Introduction (CC201)

**5. Supervision:**

<b>Name of the Course</b>	<b>Department/Institution</b>	<b>Completed</b>	<b>Ongoing</b>
<b>M.Phil</b>	School of Women’s Studies	2	3
<b>PhD (only registered students)</b>			

**6. Workshops/ Conferences/ Lectures/ Seminars:**

**a. National:**

**(Period–Name of Conference–Title of Paper–Organizer/ Place–Invited/ Selected/ Coordinated)**

22-23 September, 2016–Negotiating Globalisation: Trade Unions and Labour in Contemporary India–Gender, Labour and Hindutva: Role of Bharatiya Mazdoor Sangh in West Bengal and Gujarat –Institute of Development Studies Kolkata–Selected

**b. International:**

**(Period–Name of Conference–Title of Paper–Organizer/ Place–Invited/ Selected/ Coordinated)**

7-8 March, 2017–Hegemony, Resistance and Cultural Artifacts: India in the Late 19<sup>th</sup> and 20<sup>th</sup> Centuries–The *Sadhvi* in Hindutva Politics: Nation, Motherhood and the ‘Other’–Department of History, Jadavpur University–Invited

2-3 February, 2017–Social Marginality: Issues and Concerns–The *Sadhvi* in Hindutva Politics: Nation, Motherhood and the ‘Other’–Department of Sociology, University of Gour Banga, Malda –Selected

7-9 April, 2016–Sociology of Religion in a Pluralistic Society –From ‘Secular’ to ‘Communal’: Religion, Politics and Agency–Centre for Study of Religion and Study, Jadavpur University, Kolkata in Collaboration with the Lancaster University, England–Selected

**Lectures Delivered : (Period–Organiser–Event–Topic)**

29 March 2017–University Women’s Association of Calcutta, Kolkata–Invited Lecture on International Women’s Day–Lecture Delivered on ‘Be Bold for Change’

8 March 2017–Loreto College, Kolkata–Invited Lecture to Commemorate International Women’s Day–Lecture Delivered on ‘Women and Violence: Policy Measures and Coping Strategies’

23 September 2016–Women’s Studies Centre, Asansol Girls College–Seminar–Lecture Delivered on ‘Important Concepts of Women’s Studies’

16 September 2016–Ananda Mohan College, Kolkata –Invited Lecture–Lecture Delivered on ‘Representation on Women in Television’

11 August 2016–Mrinalini Dutt Mahavidyalaya in Collaboration with School of Women’s Studies, Jadavpur University–Women and Nation: Revisiting Indian– Culture, Politics and Identity–Resource Person. Lecture delivered on ‘The Politics of Hindutva: Nation and Motherhood’

**c. Workshops/Course Attended:**

- Participated in the GIAN course ‘Contemporary Cultural Studies (166025F04)’ from 5-17 December 2016 at Jadavpur University
- Auditing a course titled, “Situating ‘Science’: Transactions across Disciplines” conducted by the Centre for Studies in Social Sciences, Calcutta from January to June 2017

**8. Membership of Committees, Professional Associations, Journal Committees, Learned Societies, Academic Bodies:**

**JU:**

- Member of Anti-ragging Committee, Jadavpur University
- Member of Ph.D Committee, School of Women’s Studies, Jadavpur University

**External:**

- Life member of Indian Association of Women’s Studies

**9. Publication:**

**Others:**

Dhawan, N. (2016) ‘Religion and Identity’ in UGC-ePathshala. Available at <http://epgp.inflibnet.ac.in/ahl.php?csrno=33>

**Profile (April 2016-March 2017)**

1. **Name:** Dr. Panchali Ray

2. **Designation:** Assistant Professor (contractual)

3. **Years in School of Women’s Studies:**

<b>From</b>	<b>To</b>	<b>Designation</b>
2007	2012	JRF/SRF/NET fellow
2013	2017	Assistant Professor (contractual)

4. **Teaching (April 2016-March 2017):**

a. **School of Women’s Studies:**

<b>Name of Programme</b>	<b>Name of Course/s</b>	<b>No. of Classes or Lectures</b>
E.D. (B.A.)	1. Concepts and Contexts I	15
	2. Concepts and Contexts II	
M.Phil	1. Core Course I	08
	2. Core Course II	
Ph.D	1. Core Course I	05

b. **Course coordination:**

<b>Period</b>	<b>Institution</b>	<b>Name of Programme</b>	<b>Name of Course/s</b>
2016-2016 (first semester )	SWS, JU	MPhil	Core Course I
2016-2017 (Second Semester)	SWS, JU	ED	Concepts and Contexts II

**5. Supervision:**

<b>Name of the Course</b>	<b>Department/Institution</b>	<b>Completed</b>	<b>Ongoing</b>
M.A.			
M.Phil	SWS, JU		3
PhD (only registered students)	SWS, JU		1

**6. Workshops/Conferences/Lectures/Seminars:**

**a. National:(Period-Name of Conference-Title of Paper-Organizer/ Place-Invited/ Selected/ Coordinated)**

2016-Special Lecture -Is women's Liberation Possible? Rethinking Linkages between Capitalism and Patriarchy -Science Education Group, IIT, Kharagpur, West Bengal-Invited

2016-Nationalism, Culture and Politics-Sexual Violence and the Imagination of the Nation: Tales from Bastar, Chhattisgarh-Mrinalini Datta Mahavidyapith College, Kolkata-Invited

2016-Cultural Politics, Identities and Gender: A Feminist Research Methodologies Workshop-Sexualities and Research Methodologies-School of Women's Studies, Jadavpur University in Collaboration with *Sachetana*.-Invited

2016-Popular Movements in West Bengal and Bihar: A Research Workshop-Violated Bodies/Resisting Bodies: Women's Movements and Political Motherhood, Contemporary Manipur-Mahanirban Calcutta Research Group, Kolkata in Collaboration with School of Women's Studies -Invited

2016-Workshop on Violence -AFSPA and the Women's Movements, Contemporary Manipur -Women Resisting Sexual Violence and State Repression, Kolkata Chapter -Invited

2016-National Conference on 'Women Speak Nation: Identities and Intersectionalities'-School of Women's Studies, Jadavpur University-Co-coordinator

2017-Special Lecture -Women's Movements in Manipur and Chhattisgarh -Loreto College, Kolkata -Invited

2017-Discussant -Centre for Development Practice and Research, TISS, Patna-Invited

2017-XV National Conference on Women's Studies-Sub theme 13: Teaching Women's Studies -IAWS and University of Madras, Chennai-Co-coordinated

**b. International:(Period-Name of Conference-Title of Paper-Organizer/Place-Invited/ Selected/ Coordinated)**

2016-Redefining Labour Roles in a Globalizing India-Negotiating Everyday Politics and the Rhetoric of (Un) skilled Labour: Power and Subjectivities at Work-Institute of Economic Growth, Delhi, India-Selected

2016-XIth International Labour History Conference, 'Workers, Labour and Mediation'-Women and Trade Unions: 'New' Politics and Question of Agency-V.V. Giri National Labour Institute-Selected

2016-International Seminar on 'Empowering Women to Lead Change-ICFAI University, Tripura -Chaired a session

**7. Awards/Grants/Prizes/Research projects:**

Travel grant awarded by School of Women's Studies, Jadavpur University to interview women resisting state violence in Manipur and Chhattisgarh (2016)

**8. Membership of Committees, Professional Associations, Journal Committees, Learned Societies, Academic Bodies:**

**External:** Life member of Indian Association of Women's Studies

**9. Publication:**

**a. Journal:**

**National:**

**With ISSN:**

- Ray, Panchali, "Is this even work?" nursing care and stigmatised labour', *Economic and Political Weekly*. 2016.47 (2). 60-69.

**b. Others:**

- Ray, Panchali, "Care (un)skilled: fragmented markets and nursing labour, contemporary Kolkata" in Fernandez, Bina, Meena Gopal, Orlanda Ruthven (eds.) *Land, Labour and Livelihoods: Indian Women's Perspectives*, Palgrave Macmillan. 2016. 239-260.
- Ray, Panchali, "Care Regimes and Transnational Migration: What Happens to Those Left Behind?" in *Migration Narratives: The SHRAM Blog*; July 2016, Accessible at <http://www.shram.org/blogs/?p=1443>

**Profile (April 2016-March 2017)**

**1. Name:** Dr. Rimple Mehta

**2. Designation:** Assistant Professor (Contractual)

**3. Years in School of Women's Studies:**

From	To	Designation
2013	Present	Assistant Professor (Contractual)
2010	Present	JU-SYLFF Doctoral Fellow

**4. Teaching (April 2016-March 2017):**

**a. School of Women's Studies:**

Name of Programme	Name of Course/s	No. of Classes or Lectures
E.D. (B.A.)	Women's Studies: Concepts and Contexts I	5
	Women's Studies Concepts and Contexts II	4+10=14
M.Phil	Feminist Thoughts and Practices: An Introduction (CC201)	4
	Research Methodologies (CC102)	7
Ph.D	Research Methodologies	7

**b. Outside School (both JU and External):**

Department/Institution	Name of Programme	Name of Course/s	No. of Classes or Lectures
	B.A. (including E.D.)		

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Collaborative course between Cornell University and Center for Studies in Latin American Literatures and Cultures, Department of Comparative Literature, Jadavpur University (Conducted over Skype 6.30pm-8.30pm)

**M.A.**

Bodies at the Border

1

**M.Phil**

**Ph.D**

**c. Course coordination:(Period–Institution–Name of Programme–Name of Course/s)**

January 2015 – December 2016–School of Women’s Studies, Jadavpur University–Extra Departmental –Women’s Studies: Concepts and Context, Course I & II

June 2016- December 2016–School of Women’s Studies, Jadavpur University–M.Phil in Women’s Studies–Research Methodologies (CC102)

January 2017-present–School of Women’s Studies, Jadavpur University–M.Phil in Women’s Studies –Feminist Thoughts and Practices: An Introduction (CC201)

**5. Supervision:**

<b>Name of the Course</b>	<b>Department/Institution</b>	<b>Completed</b>	<b>Ongoing</b>
M.Phil	School of Women’s Studies, Jadavpur University	1	2
PhD (only registered students)			

**6. Workshops/ Conferences/ Lectures/ Seminars:**

**a. National:(Period–Name of Conference–Title of Paper–Organizer/ Place–Invited/ Selected/ Coordinated)**

22-25 January, 2017–Women in a Changing World: Restructured Inequalities, Counter currents, and Sites of Resistance–Panel: Inside Prison Walls: Resistance, Subversions, Negotiations– Indian Association of Women’s Studies at University of Madras, Chennai–Selected

23 February 2017–Dissemination Meeting of the research project titled “Love, Law and Labour: Child Marriage in West Bengal–She Came to Stay: Bangladeshi Women in India Negotiate Cross-Border Child Marriages–School of Women’s Studies, Jadavpur University–Invited

**b. International:(Period–Name of Conference–Title of Paper–Organizer/ Place–Invited/ Selected/ Coordinated)**

23-24 June 2016–Critical Prison Studies, Carceral Ethnography, and Human Rights: From Lived Experience to Global Action–Time is on My Side: Negotiating Space and Time in Prison–International Institute for the Sociology of Law, Onati, Spain–Invited

19-20 September 2016–Race, Criminal Justice and Migration–‘Illegal’ Bangladeshis in *Akhand Bharat*: A Shameful Other?–Border Criminologies, Centre for Criminology, University of Oxford, at University of Oxford, UK–Invited

19-20 January, 2017–Shifting Significations of Borders in Contemporary South Asia and the Americas –Centre for Studies in Latin American Literatures and Cultures (CSLALC) & Centre of Advanced Study (CAS), Dept. of Comparative Literature, J.U–Invited

**7. Awards/ Grants/ Prizes/ Research Projects:**

- 2016: Received a travel grant for a seminar in Spain in June 2016 under the “UGC GDA- Travel, Seminar and Visiting Fellow Scheme (XII Plan)”
- March 2016- present: Researcher for a Harvard University South Asia Institute project “The 1947 Partition of India: The Demographic and Humanitarian Consequences”
- February 2016-February 2017: Researcher for a School of Women’s Studies, Jadavpur University project titled “Love, Law and Labour: Child Marriage in West Bengal. Focus of research carried out by me: Cross-Border Child Marriages along the Indo-Bangladesh border.

**8. Membership of Committees, Professional Associations, Journal Committees, Learned Societies, Academic Bodies:**

**External:**

- 2013 to present - National Representative for India at European Group for Study of Deviance and Social Control [http://www.europeangroup.org/contact\\_details/](http://www.europeangroup.org/contact_details/)
- 2013 to present- Life Member of Indian Association of Women’s Studies
- 2014 to present - Academic Researcher at Border Criminologies, Center for Criminology, University of Oxford <http://bordercriminologies.law.ox.ac.uk/about/academic-researchers/>
- March 2017 to present: Book Review Editor for Border Criminologies blog, Center for Criminology, University of Oxford <http://bordercriminologies.law.ox.ac.uk/>
- April 2015 to present: Member of Editorial Board for Refugee Watch Online <http://refugeewatchonline.blogspot.in/>

**9. Publication:**

**a. Journal:**

**National:**

**With ISSN: 1**

- Mehta, R (2017) Review of “Domestic Days: Women, Work and Politics in Contemporary Kolkata”, by Samita Sen and Nilanjana Sengupta, New Delhi: OUP, 2016 in Newsletter, School of Women’s Studies, Vol 34

**International:**

**With ISSN: 1**

- Mehta R. (2016) ‘Borders: A View from ‘Nowhere’’, *Criminology and Criminal Justice*, 16(3), 286-300.

**b. Others: 2**



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- Mehta, R. (2016) 'Feminist Epistemology and Methodology' and 'Family, Marriage and Household' in UGC-ePathshala. Available at <http://epgp.inflibnet.ac.in/ahl.php?csrno=33>.
- Mehta, R. (2016) Book Review: Bodies without Borders. Available at: <https://www.law.ox.ac.uk/research-subject-groups/centre-criminology/centreborder-criminologies/blog/2016/05/book-review-4>

**10. Any Other Activities (Extension/Outreach): (Period–Organisation–Type of Activity–Role in Activity)**

August 2016–Aikido Club, JU–Aikido Workshop for Students and Researchers of SWS–Coordinator

March 2017–Action Aid, Stree –Commemorating International Women’s Day–Coordinator

**Profile (April 2016-March 2017)**

1. **Name:** Hardik Brata Biswas
2. **Designation:** Coordinator, Teaching and Learning Materials
3. **Years in School of Women’s Studies:** 11

<b>From</b>	<b>To</b>	<b>Designation</b>
2005	2007	M.Phil candidate (M Phil awarded in 2007)
2008	2011	Sir Ratan Tata Trust Ph.D Fellow/ SEPHIS-FORD Fellow
2011	2013 March	M.Phil Programme coordinator (Part-Time)
2013	March 2017	Coordinator, Teaching and Learning Materials (UGC Teaching)

**4. Teaching (April 2016-March 2017):**

**a. School of Women’s Studies:**

<b>Name of Programme</b>	<b>Name of Course/s</b>	<b>No. of Classes or Lectures</b>
<b>E.D. (B.A.)</b>	Women’s Studies: Concepts and Contexts 1	10 (45 minutes class)
	<b>M.Phil</b> Core Course 1	5 (2 hours class)
	Cultural Construction of Gender (OP 201)	18 (2 hours class)
	Research Methodologies (Sem 1)	13 (2 hours class)
	Feminist Thoughts and Practices: An Introduction (CC 201)	9 (2 hours class)
<b>Ph.D</b>	Research Methodologies	9 (2 hours class)

**b. Outside School (both JU and External): (Department/Institution–Name of Programme – Name of Course/s–No. of Classes or Lectures)**

- Rabindranath Studies Centre, Faculty of Arts, Jadavpur University–BA (including ED)–A New Femininity: Rabindranath Then and Now–12 (45 minutes class)
- Diamond Harbour Women’s University, West Bengal–**M.A. in Women’s Studies** –Feminisms: Theories and Issues–8 (1 hour class)–Literature, Text, Representation–10 (1 hour class)–Women, Science, Gender–5 (1 hour class)
- Diamond Harbour Women’s University, West Bengal–**M.Sc. in Geography**–Special paper: Gender Geography–12 (1 hour class)

- School of Cultural Texts and Records, Jadavpur University–Post Graduate Certificate Course–Digital Humanities–8 (1 hour class)

**c. Course Coordination: (Period–Institution–Name of Programme–Name of Course/s)**

January 2017 to present–School of Women’s Studies, Jadavpur University–M.Phil in Women’s Studies –Cultural Constructions of Gender (Semester II, OP 201)

**5. Supervision: (Name of the Course–Department/Institution–Completed–Ongoing )**

**M.Phil**–School of Women’s Studies, Jadavpur University–From *Tawaif* to the Neo Liberal Sex Model: Inscribing Cinesexuality on the Figures of Performing Women (Sonia Bhattacharya 2014)

**M.Phil (joint supervision)**–School of Women’s Studies, Jadavpur University–*Bangla Shahitye Prantik Jounotar Uposthapon* (Anwasha Biswas)

**M.Phil (joint supervision)**–School of Women’s Studies, Jadavpur University–Women write madness: Madness and Femininity in English literature (Anandi Mukherjee)

**M.Phil (joint supervision)**–School of Women’s Studies, Jadavpur University–Women, Partition and Nation in Popular Hindi Films, 1990s-2010s (Supriyo Pramanik)

**6. Workshops/ Conferences/ Lectures/ Seminars:**

**a. National:**

**(Period–Name of Conference–Title of Paper–Organizer/ Place–Invited/ Selected/ Coordinated)**

- 29th-31st March, 2017–RETHINKING MARGINALITY: Conjunctions & Contradictions–Image, Sexuality and Thinking the Body of the Marginal Woman in Times of Development–Rabindra Bharati University, Centre for Women’s Studies, Department of Human Rights and Human Development, Dr B R Ambedkar Studies Centre –Invited
- 8-9 March 2017–Women’s Studies: Concepts, Facets and Prospects–Chair –Diamond Harbour Women’s University National Level Seminar Sponsored by Higher Education Department, Government of West Bengal–Invited

**8. Membership of Committees, Professional Associations, Journal Committees, Learned Societies, Academic Bodies:**

**JU:**

- Academic Committee (School of Women’s Studies)
- Publication Subcommittee, Convener (School of Women’s Studies)
- Silver Jubilee Celebrations Committee, Joint-Convener (School of Women’s Studies)
- Moderation Committee (School of Women’s Studies)
- Member, Editorial Board, Newsletter, School of Women’s Studies (ISSN: 2394-2142)
- Coordinator, M.Phil programme in Women’s Studies

**External:**

- Moderation Committee, Diamond Harbour Women’s University
- Bangiya Sahitya Parishat
- Little Magazine Libaray O Gabeshana Kendra

**9. Publication**

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- a. Journal: Hardik Brata Biswas ed., *Alochonachakra*, Vol. 41, Special supplement on Women's Issues, March 2017, Kolkata

**National:**

**With ISSN:** RN 69543/87 — ISSN: 2231-3990

- b. **Essays in edited volumes/chapters in books:** Four [forthcoming 2016/17]

**Profile (April 2016-March 2017)**

1. **Name:** Dr. Nandini Mukherjee
2. **Designation:** Assistant Professor (Contractual)
3. **Years in School of Women's Studies:**

<b>From</b>	<b>To</b>	<b>Designation</b>
July 2013	November 2016	<b>Assistant Professor (Contractual)</b>

4. **Teaching (April 2016-March 2017):**

- a. **School of Women's Studies:**

<b>Name of Programme</b>	<b>Name of Course/s</b>	<b>No. of Classes or Lectures</b>
<b>M.Phil</b>	Feminist Thought and Practices (Sem I) Gender and Development (Sem II) Research Methodology	
<b>Ph.D</b>	Research Methodology	

5. **Supervision:**

<b>Name of the Course</b>	<b>Department/Institution</b>	<b>Completed</b>	<b>Ongoing</b>
<b>M.A.</b>	Asutosh College, CU		1
<b>M.Phil</b>	School of Women's Studies, JU	2	2

6. **Workshops/Conferences/Lectures/Seminars:**

- a. **National: (Period-Name of Conference-Title of Paper-Organizer/ Place-Invited/ Selected/ Coordinated)**

- April 2016-Feminist Research Methodology Workshop on 'Cultural Politics, Identities and Gender' -Invisibility of Women Work and Identity-Jadavpur University-Invited
- March 2017-Women and Development-Status of Women in the Handloom Industry- V i s v a Bharati -Selected

- b. **International:**

**(Period-Name of Conference-Title of Paper-Organizer/Place-Invited/ Selected/ Coordinated)**

June 2016 - Annual Conference of International Association for Feminist Economics (IAFFE)- "Labour Market and Missing Women; The Indian Story"-National University of Ireland, Galway, Ireland-Selected

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November 2016–Annual Conference of Indian Society of Labour Economics (ISLE) – “Women Labour in Handloom Industry of Birbhum District of West Bengal: Untold Story of Status and Rights”– Indian Institute of Technology (IIT) and Tata Institute Social Sciences (TISS), Guwahati–Selected

### 7. Awards/Grants/Prizes/Research Projects:

- **ICSSR** sponsored Research Project entitled “Multiplier Effect of Increasing Female Employment: Assessing Impacts in Urban Areas”, ongoing, with Institute for Human Development, New Delhi

### 8. Membership of Committees, Professional Associations, Journal Committees, Learned Societies, Academic Bodies:

#### External:

1. BOS member of UG-Women’s Studies, University of Gour Banga
2. Indian Society of Labour Economics (ISLE)

### 9. Publication: 2

#### a. Journal:

#### National:

#### With ISSN:

1. “Where have all the women gone? Unpaid Work and Missing Women in the Indian Labour Market” jointly with Prof. Rajarshi Majumder, *Indian Journal of Human Development*, Delhi, 2017, ISSN: 0973-7030
2. “Employment status of female headed households in India: Reflections from NSS data”, Dr. Nandini Mukherjee in an edited volume *Women Empowerment: Challenges and Strategies*, **Arpan Publications**, New Delhi 2017, ISBN 978-93-82135-68-5

### 2. A. Area of Research Activities: (Broad Areas): See 2B

#### B. Major Research Project: (Departmental/Individual, Name of the Project/Funding Agency)

The School of Women’s Studies, Jadavpur University has taken up research through various action-oriented projects. It has also taken up a project on reprinting Bengali Women Writers as extended research. The research projects undertaken by the School in the academic period April 2016-March 2017 are listed below.

#### Research Projects:

##### 1. Love, Law and Labour: Child Marriage in West Bengal

**Principal Investigator:** Professor Samita Sen

**Project Coordinator:** Dr. Anindita Ghosh

#### Project Staff:

Ishita Savina Chowdhury, Research Assistant (Qualitative)

Utsarjana Mutsuddi, Research Assistant (Qualitative)

Biswajit Prasad Hazam, Research Assistant (Quantitative)

Kaushik Mukherjee, Research Assistant (Qualitative part-time)

## Introduction

The School of Women's Studies, Jadavpur University is currently undertaking a project on Child Marriage in West Bengal. This project is funded by the American Jewish World Service, an organization which is involved with projects related to Early and Child Marriage across the globe, among various other socially relevant issues. Child Marriage has been a dominant trend that has ruled the patriarchal economy of India for the longest time. In recent years, due to growing awareness and government schemes such as Kanyashree, this practice has dwindled in numbers. However, we are yet to eradicate this practice completely as the number of early marriages remains quite high in various rural and poverty stricken areas of India. In this project we have chosen to focus on the cases that we have found in West Bengal. Another part of this project deals with Bangladeshi women, usually in their early teens who get married to Indian men after illegally crossing the national borders. This part of the project focuses on how these young women negotiate, subvert and resist various norms of law and family and state that are imposed upon them.

### **Purpose of the Project**

The purpose of this project is to map out the emerging trends related to this practice in West Bengal. We also intend to analyze the reasons that cause this practice to continue. One very important purpose of the project is to figure out whether the schemes that the government has implemented have actually created any impact. Other purposes of this project include gaining a comprehensive picture regarding the reality behind the continuation of this practice. We also intend to bring to light the ways in which love, longing and desire of various sorts are caught in the web of securitization of borders and criminalization of border crossings.

### **Target Groups Covered**

Our target group includes child or underage brides in the last 5 years, in 5 districts. Another target group includes young Bangladeshi women who are in their early or late teenage years and get married to Indian men.

### **Time frame**

We started this project on March 2016 and finished one term of the project in February 2017. We started a second term for this project in April 2017 and the work continues.

### **Methodology**

The basic criterion behind choosing the selected blocks for our fieldwork was the high rate of child marriage. A comparative study of literacy rates, employment opportunities and status, socio-economic status of various blocks under various districts was done to give us a clearer picture. The final selection of blocks was done keeping in mind that we could interview respondents from varying backgrounds. The final districts chosen were South 24 Parganas, Birbhum, Jalpaiguri, Purba Medinipur and Kolkata. As far as the part related to the Bangladeshi women is concerned the research draws on 14 in-depth interviews of women from Bangladesh and some informal conversations, observations made in 5 different villages in North 24 Parganas near the Indo-Bangladesh border.

### **Activities**

Our team of researchers discussed for weeks and came to an agreement regarding the final questionnaire that would serve as our primary data collection tool. After the finalization of the questionnaire, each field was meticulously planned out by the Project – Coordinator and the team and dates of each field were decided upon and the fields were conducted. The structure of each field visit included, 3-4 days of personal interviews where our Field-Researchers visited pre-selected households to conduct interviews and record them for further reference. At the end of each fieldwork

an Focus Group Discussion was planned where we invited child brides, their families, Panchayat Members, important social agents in the locality to come and discuss the evils of continuing this practice or the benefits that families reaped from continuing this practice and measures that could be taken up by the local community to counter this social practice. The structure of each field visit was more or less the same. We had a total of 5 field visits. Post the field visits, our Researchers would come back to ensure that the transcriptions of the interviews were ready. Next data mining was done and profiles for each of our respondents were made so that the analysis of the data recorded in the field could be commenced.

### **Impact – Success, Obstacles and Challenges**

- 1) **Impact – Success:** The research is currently underway so it is too early to talk about the impact it may have created. However we have worked on 5 preliminary papers so far. Though the actual research has not been completed, we feel that we may have inadvertently opened some conversations regarding this issue in our fields during our visits. This experience has been hugely rewarding for us. We also seem to have played a role in building new capacity amongst the NGOs we worked with as our local contact, especially a database of child and early marriage. Since, this project is a part of a larger nationwide project we hope that the work we have done here will feed into the larger picture and eventually be powerful enough to create national impact.
- 2) **Obstacles:** Our primary obstacles were posed by unfriendly working conditions like the floods in Jalpaiguri. Other obstacles we faced during this project was that, one of the skilled members of the team joined late and left early. This delayed some initial work; however, we were able to manage most of the quantitative analysis.
- 3) **Challenges:** The project is quite challenging in itself since it creates the space for our researchers to go and ask extremely uncomfortable questions to people who are not always willing to trust complete strangers with so much of personal information no matter who our local informant may be. We came across more cases than we were prepared to handle. This was a disappointment as well. Since this is a very sensitive and intimate issue, it was often difficult for us to ask questions and respondents were not comfortable discussing these issues. Thus it becomes a challenge for us to balance the need for collecting information and respecting the reserve of our respondents. However, despite misinformation and lack of information in some parts, our researchers did their best with what they had. With respect to the cases with the Bangladeshi brides the process of accessing the research participants was rather difficult. This was due to the fact that most of the relevant respondents usually have to pose as Bengalis from West Bengal. They change their names even. It was only due to the support of a field worker and NGO worker that we could contact the relevant brides.

### **Meetings and Workshops**

Over the last one year there have been various team meetings where our researchers have been engaging in dialogue with senior consultants. Other than that the regular Focus Group Discussions have created a space for the conversation to begin within the communities where such practices are prevalent and has resulted in discussions regarding the various mechanisms to deal with this social problem. On 23 February 2017, a dissemination meeting was held, where dignitaries and organizations working on this issue across West Bengal came together to discuss their findings. Initiatives like Swayamsiddha were discussed at the meeting. Jeevika Development Society presented their continuing work in this field. Professor Biswajit Ghosh discussed his experience of working for



decades in this field. The meeting was well-attended and we hope to follow this up with other meetings in the second phase of the project.

## **2. CHILDLINE**

### **Coordinator: Indrani Banerjee**

The CHILDLINE is a project of the Ministry of Women and Child Development, GOI. A phone number that is 1098 spells hope for millions of children across India, CHILDLINE is India's first 24-hour, free, emergency phone service for children in need of aid and assistance. CHILDLINE will turn twenty one on June 2017. The School of Women's Studies, Jadavpur University has been acting as the nodal organization for the CHILDLINE 24 Parganas (South) unit, which will successfully complete 14 years in June 2017.

### **Purpose of the Project:**

- To respond to children in emergency situations and refer them to relevant Governmental and Non-Governmental Organisations.
- To create a structure that ensures the protection of the rights of the child as ratified in the UN Convention on the Rights of the Child and The Juvenile Justice (Care and Protection of Children) Act, 2000.
- To provide a platform for networking amongst organizations and to strengthen the support systems which facilitate the rehabilitation for children in especially difficult circumstances.
- To sensitize agencies such as the public, hospitals, municipal corporations and the railways towards the problems faced by these children.
- To provide an opportunity to the public to respond to the needs of children in difficult circumstances.

### **Target groups covered:**

The children 0-18 years of age and who are in need of care and protection is the target group of the CHILDLINE project.

### **Time frame:**

This is an ongoing project of the Ministry of Women and Child Development Govt. of India since 1995.

### **Methodology:**

The operational procedures of CHILDLINE start with dialing 1-0-9-8 (Ten-Nine-Eight). Either a child herself/himself or any concerned adult can call at CHILDLINE. The person then gets connected to the CHILDLINE Contact Centre (CCC) and a team responds to the calls.

### **Activities Involved in Dealing with CHILDLINE Cases:**

#### **Crisis Management**

- *Direct assistance:* CHILDLINE rushes to Aid the Child- Medical, shelter, protection from abuse, repatriation, death, missing children, intensive counseling.
- *On phone:* Emotional support and guidance, information and referral to services for the caller, information about CHILDLINE, silent calls.

#### **Long-term Rehabilitation**

After the emergency needs of the child have been addressed, the child is provided Rehabilitation and Constant follow up.

### Advocacy and Prevention

- In the year 2016-17 the school takes several initiatives to protecting the child rights in the district.
- School awareness programme at different subdivisions like Canning Diamond Harbour, Baruipur and Kakdwip have helped in preventing child marriage and child trafficking.
- The Police Department, which is also responsible to protect the rights of the children, supports the CHILDLINE. To acknowledge the service of CHILDLINE the Superintendent of Police of South 24 Parganas district organized several meetings with the CHILDLINE and promised to help CHILDLINE to expedite their services.
- The Police Department has taken an initiative to prevent child trafficking by conducting several school awareness programme where CHILDLINE South 24 parganas has taken active role. The name of the project is *Swayangsiddha*.
- The regular meeting with District Level Child Protection Unit has helped the school to intervene several critical cases.
- The Department of Social Welfare, South 24 Parganas district printed posters for sensitizing the children on right to education, child marriage and child trafficking as CHILDLINE advocates these issues and brought the real scenario of the vulnerability of the children in front of the district authority.
- The CHILDLINE organized several workshops for the stakeholders of the Child Protection System.

### Impact-success, obstacles, challenges:

The CHILDLINE team faces several challenges including insufficient shelter homes, lack of awareness among community members, staffs strength etc. In spite of that, the CHILDLINE team hopes to see a child friendly society where every child will execute his/her rights without hesitation and the society will also come forward to ensure the protection of the children who are the future of the nation.

### Meetings and Workshops:

- The 15<sup>th</sup> CHILDLINE Advisory Meeting was organised on 11<sup>th</sup> November 2016 at the chamber of Addl. District Magistrate (Development), South 24 Parganas.
- The School of Women's Studies organised an in-house orientation programme for the CHILDLINE team members on 24 November 2016. As two new partner organisations have joined CHILDLINE South 24 Parganas from September 2016, the School has oriented the new team members.
- The School of Women's Studies has organized two workshops on 6<sup>th</sup> and 7<sup>th</sup> March 2017 for the School Teachers of the district South 24 Parganas on child protection issues.

### 3. A. Invited Lectures Delivered/Session Chaired:

See 1B (Staff Profile)

### B. Seminar/Workshop/Conference/Symposium Attended:

See 1B (Staff Profile)

### C. Seminar/Workshop/Conference/Symposium Organized:

*(Name of the Teacher, Name of the Paper Presented (if any), Name of the Seminar, Place, Duration)*

The events in the form of seminars/workshops/conferences have helped in networking at different levels for a range of purposes. This includes twinning between women's studies centres to provide support to the new centres; conducting joint programmes to utilise the strength from various centres; initiate dialogues between areas of research of different centres to build newer perspectives of research and documentation; and also to expose the students to local, national and international levels of research in women's studies.

- The School of Women's Studies in collaboration with Sachetana organised a ten-day workshop on Feminist Research Methodologies titled "Cultural Politics, Identities and Gender" from 6-17 April 2016. There were 25 participants from within the state as well from national level in the workshop. This included college teachers who were interested in research on women's studies or taught related topics in their college. There were also PhD researchers. The workshop was inaugurated by the Dean, FISLM, JU. On the first day of the workshop, there was a panel discussion titled, "Women's Studies and Cultural Studies: Perspectives from the Margins". The participants in the panel were the former Director of School of Women's Studies, Professor Paromita Chakravarti from the Department of English; Professor Swati Ghosh, Director of Centre of Women's Studies, Rabindra Bharati University; Dr. Anirban Das from Centre of Studies in Social Sciences, Kolkata; and Dr. Nandini Ghosh from Institute of Development Studies Kolkata. The interdisciplinarity in feminist methodology was reflected in the diverse disciplines of the resource persons who worked on gender. They ranged from History, Economics, Literature, Cultural Studies, Women's Studies, Performance Studies to Political Science. In addition to the lectures, the participants made presentations on areas of their research. There were resource persons who acted as discussants on their presentation to help them develop their methodologies of research. The workshop helped in opening interdisciplinary dialogues in various areas of feminist scholarship.
- The School organised a two-day annual conference on "Women Speak Nation: Identities and Intersectionalities" 8-9 April 2016. The welcome address was given by conference coordinators Dr. Aishika Chakraborty, Director and Dr. Panchali Ray, Assistant Professor. The first day of the conference was divided into two sessions: Session I, titled "Gender, Nation and Culture" and session II, titled "Dalit Women and the Politics of Representation". Session I was chaired by Professor Bharati Ray and the speakers were Professor Swapan Chakravorty, Sri Jawhar Sircar, Professor Ratnabali Chatterjee and Professor Lakshmi Subramanian. Session II was divided into two parts. The first part was chaired by Dr. Aparna Bandyopadhyay and the speakers were Smt. Kalyani Charal Thakur and Dr. Nandini Saha. The second part of that session was chaired by Professor Lakshmi Subramanian and a special lecture was delivered by Professor Kalpana Kannabiran. The second day of the conference comprised three sessions. The Session III was titled "Gender and the Politics of Performance" and was chaired by Professor Nilanjana Gupta. The speakers of this session were Professor Anuradha Roy and Dr. Aishika Chakraborty. The Session IV was titled "Women's Movements and Intersectionalities" was again divided into two parts. The first part was chaired by Dr. Panchali Ray, and the speakers were Dr. J. Devika and Smt. Ruchira Goswami. The second part was chaired by Professor Samita Sen, and a special lecture was given by Professor Nivedita Menon. The last session, i.e. Session V, titled "Challenging Binaries: Gender and Rights" was chaired by Professor Paromita Chakravarti, and the speakers were Dr. Payoshni Mitra and Anindya Hazra.
- The School of Women's Studies, Jadavpur University organised a lecture by Sri Sadanand Menon on "Chandralekha: Breaking Free to Counter the Nationalist Narratives of Dance" on 28 June 2016

at Vivekananda Hall, Jadavpur University. The programme was chaired by Dr. Urmimala Munsri Sarkar.

- The School of Women's Studies, Jadavpur University in collaboration with Women against Sexual Violence and State Repression organised a seminar titled "Women, Citizenship and State: Reference Kashmir" by Ifrah Butt and Natasha Rather, co-authors of 'Do You Remember Kunan Poshpora?' on 12 July 2016. The event tried to combine scholarship with socially relevant issues as it helped engage with pressing issues touching the lives of women in the state of Kashmir.
- The School of Women's Studies, Jadavpur University organised two talks by Professor Dolores Chew [Professor of History and Humanities, Marianopolis College and Research Associate, Simone de Beauvoir (Women's Studies) Institute, Colorado University] and Professor Piya Chatterjee (Faculty of Women's Studies, University of California-Riverside and Chair, Feminist, Gender and Sexualities Studies, Scripps College in the Claremont Consortium in Claremont, CA) on 8 August 2016 at the Seminar Room of the School of Water Resources Engineering, Jadavpur University. The titles of the lectures were respectively "Anglo-Indians and Nationalism: Re-framing Past, Present and Future" and "Faultlines: Feminist Reflections on NGOization in Tea Plantation Country". Prior to the second lecture there was a book launch session by Professor Piya Chatterjee. She released the book titled *Passage to Bondage: Labour in the Assam Tea Plantations*, edited and compiled by Samita Sen, translated from the Bengali by Suhit Kumar Sen and published by Samya (Kolkata: 2016).
- The School of Women's Studies, Jadavpur University in collaboration with Mahanirban Calcutta Research Group (MCRG) and Rosa Luxemburg Stiftung organised "Research Workshop on Popular Movements in West Bengal and Bihar" on 19-20 September 2016 at Anita Banerjee Memorial Hall, Jadavpur University. The welcome address of the programme was delivered by Professor Samita Sen (Director, School of Women's Studies, Jadavpur University). There was a panel discussion on "Women in Movement: West Bengal" on 19 September 2016. The moderator was Dr. Indu Agnihotri, Centre for Women's Development Studies (CWDS), New Delhi and the speakers were Professor Iliana Sen (Advanced Centre for Women's Studies, TISS, Mumbai), Dr. Mallarika Sinha Roy (Centre for Women's Studies, JNU, New Delhi), Sri Sujato Bhadra (Human Rights Activist, Kolkata) and Dr. Panchali Ray (School of Women's Studies, Jadavpur University). Day two (20 April 2016) was divided into two sessions. Session I was chaired by Professor Prasanta Roy. Ms Sucharita Sengupta spoke on "Refugee Movement in West Bengal" and the discussants were Professor Sudeshna Banerjee (Department of History, Jadavpur University) and Dr. Subhasree Ghosh (Department of History, Asutosh College, Kolkata). Dr. Anwasha Sengupta delivered her lecture on "Tram Movement and Teachers' Movement in West Bengal" and the discussants were Dr. Atig Ghosh (Department of History, Visva Bharati, Santiniketan) and Professor Nirban Basu (Department of History, University of Calcutta). Professor Subhoranjan Dasgupta spoke on "Marxist Literary Discourses" and the discussants were Dr. Mallarika Sinha Roy, Sri Jagannath Guha, Film Maker and Dr. Rajarshi Dasgupta (Centre for Political Sciences, JNU). In Session II Dr. Sibaji Pratim Basu spoke on "Food Movement in West Bengal". The discussants were Sri Kumar Rana, Pratichi Trust and Dr. Rajarshi Dasgupta. Sri Mithilesh Kumar spoke on "J P Movement in Bihar" and the discussants were Professor M.N. Karna (Retd.), North Eastern Hill University and Sri Jishnu Dasgupta (Department of History, Srerampore College). This session was chaired by Professor Subhash Ranjan Chakrabarty. The

workshop ended with a special public lecture by Professor Sumanta Banerjee which was chaired by Professor Samita Sen.

- The School of Women's Studies organised a round table discussion on "Women in Politics" on 21 September 2016 at the Committee Room No. 2, Jadavpur University.
- The School of Women's Studies organised readings and discussion from *The Spectral Wound: Sexual Violence, Public Memories and the Bangladesh War of 1971* by Dr. Nayanika Mookherjee, Research Director and Reader, Anthropology Department, Durham University on 22 November 2016 at Lecture Hall, School of Water Resource Engineering, Rabindra Bhavan, JU.
- The School of Women's Studies organized a UGC-CPE sponsored international conference on "Gender and Empowerment" in collaboration with Bijoy Krishna Girls' College, Howrah on 16-17 December 2016 at the college venue. The dignitaries and delegates were felicitated in the inaugural session on the first day of the conference. The Minister for Co-operation, Government of West Bengal, and the President of Governing body, Bijoy Krishna Girl's College, Shri Arup Roy stressed on the importance of women empowerment and congratulated the organisers of the conference. Dr. Ruma Bhattacharya, Principal, Bijoy Krishna Girl's College, welcomed the conference participants and outlined the focus of organizing such a conference. Professor Samita Sen, Director of the School spoke about the overwhelming response generated once the call for papers was declared. The event saw around 200 papers being presented in two days of the conference from various disciplines. Dr. Swati Ghosh, Director, Women's Studies Centre, Rabindra Bharati University was the keynote speaker with Dr. Ruma Bhattacharya chairing the session. Dr. Ghosh explored the concept of empowerment in the context of sex workers of Bengal as agents of empowerment. Two plenary sessions followed the keynote. The first plenary on 'Gender, Culture and Identity' was chaired by Dr. Aishika Chakraborty, Associate Professor, School of Women's Studies, JU. The speaker was Professor Ishita Banerjee Dubey, Centre for Asian and African Studies, El Colegio de Mexico, questioned the single understanding of 'gender' by focusing on the power dynamics in the domain of culture. The second plenary session titled, Gender, Law and Violence, featured the renowned feminist lawyer and co-founder, Majlis Legal Centre, Mumbai, Flavia Agnes, who spoke on the issue of violence against women, important legal cases fought by women across communities, and various loopholes of law, and related problems. The session was chaired by Professor Sarvani Gooptu, Netaji institute for Asian Studies. There were three plenary sessions on the second day of the conference. The first plenary session on 'Women in History' was chaired by Professor Ratnabali Chatterjee (Retired), Department of History, University of Calcutta. Professor Geraldine Forbes, Distinguished Teaching Professor Emerita, Department of History, SUNY, Oswego, NY spoke on 'Beyond Queens and Rebels: How Women's History Changes the Historical Perspectives'. She developed her discussion around the concepts of power and authority, intersectionality and archives. The speaker on the second plenary of the day on 'Gender and Development' was Professor Ajitava Roy Choudhury, Department of Economics, Jadavpur University. The session was chaired by Professor Samita Sen, School of Women's Studies. The lecture by Professor Roy Choudhury was titled, 'Breaking through the Glass Ceiling: What Could be the Challenges?' and focused on the glass ceiling theory as a founding principle for gender inequality in the world of employment. He further critiqued the patriarchal ideology of public-private divide and the double burden that women have to bear in the society. The speaker in the third plenary session on day two was Dr. Deepita Chakravarty, Associate Professor and Chairperson, Centre for Women's Studies, Visvabharati University and she spoke on 'Patriarchy



and Labor Market Choices of Women in West Bengal'. She discussed about the impact of land reform movements on the labor market choices of women in West Bengal. The session was chaired by Professor Ajitava Roy Choudhury, Jadavpur University. The cultural performance by Dancer's Guild titled, 'Tomari Matir Konya' was a significant tribute to the cause of empowerment at the end of the first day of the conference. The two day book fair in the college campus also received a huge response from the participants.

- The School of Women's Studies, Jadavpur University with support from the New Zealand India Research Institute (NZIRI) and Victoria Memorial Hall, Kolkata hosted a two-day International Anglo-Indian Workshop on "Nexus: Anglo-Indian Literature and Anglo-Indian Life" on 18-19 January 2017 at Vivekananda Hall, Subarna Jayanti Bhavan, Jadavpur University. A special poetry reading session by Dr. Neal Hall, an internationally acclaimed poet was organised at Vivekananda Hall, JU and special lectures by Keith Butler and Irwin Allan Seally at Victoria Memorial Hall was organised on 19 January 2017.

### **Seminars/Workshops/Events/Outreach Activities Related to Specific Projects Conducted by the School**

#### **Project: *Love, Law and Labour: Child Marriage in West Bengal***

- The School of Women's Studies, Jadavpur University organised a Disseminating Meeting of the Project "Love, Law and Labour: Child Marriage in West Bengal" on 23 February 2017 at Vivekananda Hall, Jadavpur University. Session I was chaired by Professor Ratnabali Chatterjee, Former Director, Women's Studies Research Centre (WSRC), University of Calcutta. The inaugural speech was delivered by Professor Samita Sen, Director, SWS, JU. Kaushik Mukherjee, Research Assistant, AJWS, SWS, JU discussed about the Methodology of the Project/Field and Dr. Anindita Ghosh, Project Coordinator, AJWS, SWS, JU discussed about the Findings of the Project/Field. Session II was chaired by Professor Samita Sen. Professor Biswajit Ghosh, Department of Sociology, University of Burdwan presented a paper on "Understanding Child Marriage: A Sociological Perspective" followed by two presentations. The first one was a presentation on Child Marriage by Jeevika Development Society, and the second one was a presentation on *Swayamsiddha* by South Bengal Police by Mr. Ajay Mukund Ranade, IPS, Inspector General of Police, South Bengal. In this session Ms Ishita Savina Chowdhury, Research Assistant, AJWS, SWS, JU and Ms Utsarjana Mutsuddi, Research Assistant, AJWS, SWS, JU disseminated the Findings of the Project/ Field. This was followed by a paper presentation by Dr. Rimple Mehta, Assistant Professor, SWS, JU on "She Came to Stay': Bangladeshi Women in India Negotiate Cross Border Child Marriages". The programme ended with the concluding discussion.

#### **Project: *CHILDLINE supported by the Ministry of Women and Child Development, Government of India***

**The School is the nodal organization for the CHILDLINE 24 Parganas (South) unit. The CHILDLINE organized the following workshops in the period of the report:**

- The School organized an in-house orientation programme for the CHILDLINE team members on 24 November 2016. As two new partner organisations have joined CHILDLINE South 24 Parganas from September 2016, the School has oriented the new team members.



- The School of Women's Studies has organized two **workshops** on 6<sup>th</sup> and 7<sup>th</sup> March 2017 for the School Teachers of the district South 24 Parganas on child protection issues.

### **Memorial Lectures**

- The School of Women's Studies organized the XVIIth Sukhalata Rao Memorial Lecture on "Rabindranath and Imagination: Nation, Gender, and World Justice" by Dr. Esha Niyogi De, UCLA on 29 September 2016 at Vivekananda Hall, Jadavpur University.
- The School of Women's Studies organized the VIIth Sulekha Dasgupta Memorial Lecture on "Feminism in Japan" by Dr. Kathleen (Kathy) Uno, Associate Professor, History Department, Temple University on 3 March 2017 at Vivekananda Hall, Jadavpur University. The lecture was chaired by Professor Bonita Aleaz, University of Calcutta.
- The School of Women's Studies in collaboration with Biplabtirtha Chattagram Smriti Sanstha organized the XIXth Pritilata Waddedar Memorial Lecture on "Caste-Gender-Sexuality System: A Re-turn to Ambedkar" by Dr. Ritu Sen Chaudhuri, Department of Sociology, West Bengal State University on 15 March 2017 at the Seminar Room of SWS, JU. The lecture was chaired by Professor Sudeshna Banerjee, Department of History, Jadavpur University.
- The School of Women's Studies organised the IInd Ranjabati Sircar Memorial Lecture on "Music Histories Past and Present: Some Reflections" by Professor Lakshmi Subramanian, Centre for Studies in Social Sciences, Calcutta (CSSSC) on 29 March 2017 at Vivekananda Hall, JU. The lecture was chaired by Professor Moinak Biswas, Department of Film Studies, Jadavpur University.

## ADVANCED RESEARCH IN PHARMACEUTICAL SCIENCES

(Dr. V. Ravi Chandran Endowment Fund)

[Dept. of Pharmaceutical Technology]

Int. : 2457-2495

Coordinator : Prof. Biswajit Mukherjee

E-mail : vrccps.centre@jadavpuruniversity.in

### Objectives:

The main focus of the Centre for Advanced Research in Pharmaceutical Sciences is to promote the research in the field of Drug delivery in order to develop smarter novel drug delivery system in order to combat with life threatening and fatal diseases like cancer. The center believes in multidisciplinary research in order to provide platform of budding scientists, research scholars of different scientific arena to come under the same umbrella to serve mankind by strengthening the armory of therapeutics. Moreover center also encourages the study of needy and meritorious students by proving fellowship and research scholar by providing research grant as well as fellowship. Apart from that, seminars, scientific talks are arranged by the center in order to enlighten the scientific community regarding the recent advances in research arena.

### Research Areas:

Pharmaceutics and Novel Drug Delivery Systems Based on Nanotechnology

#### 1. A. Research Assistance:

Name of the Scholar: Tushi Chakravarty under Prof. Biswajit Mukherjee

Title of the Project: Tamoxifen citrate loaded nanoliposomes for the therapeutic cure of glioblastoma multiforme

Level of Assistantship : Ph. D research fellowship

Duration: 2017-2020

Sanctioned Amount(Rs.) : 5.4 lakhs

#### 1. B. Scholarship at UG Level:

Name of the students getting scholarship from the Centre with their current class:

1. Bibaswan Acharya (B.Pharm. 3<sup>rd</sup> year, 1<sup>st</sup> sem.)
2. Soumyadip Saha (B.Pharm. 3<sup>rd</sup> year, 1<sup>st</sup> sem.)
3. Protik Saha (B.Pharm. 2<sup>nd</sup> year, 1<sup>st</sup> sem.)
4. Chandan Kumar (B.Pharm. 2<sup>nd</sup> year, 1<sup>st</sup> sem.)

#### 3. Research Article Published (Last one year 2016-2017)

Tapan Kumar Shaw, Dipika Mandal, Goutam Dey, Murari Mohan Pal, Paramita Paul, Samrat Chakraborty, Asraf Kazi Ali, **Biswajit Mukherjee**, Amal Kumar Bandyopadhyay, and Mahitosh Mandal. Successful delivery of docetaxel to rat brain using experimentally developed nanoliposome: a treatment strategy for brain tumor. *Drug Delivery*. 2017, 24(1):346-357. (**Impact Factor: 6.402**).

#### 4. Book Chapter (Last one year 2016-2017):

- i. **Biswajit Mukherjee**, Samrat Chakraborty, Laboni Mondal, Bhabani sankar Satapathy, Soma Sengupta, Lopamudra Dutta, Ankan Choudhury. Multifunctional drug nanocarriers facilitate more specific entry of therapeutic payload into tumors and control multiple drug resistance in cancer. In Book: *Nanomaterials in Cancer Therapy*. (Ed. Grumezescu, AM), Elsevier, pp 203-251. (2016)

- ii. **Biswajit Mukherjee**, Paramita Paul, Lopamudra Dutta, Samrat Chakraborty, Moumita Dhara, Laboni Mondal, Soma Sengupta. Pulmonary Administration of Biodegradable Drug Nanocarriers for More Efficacious Treatment of Fungal Infections in Lungs: Insights Based on Recent Findings. In book: Multifunctional Systems for Combined Delivery, Biosensing and Diagnostics (Ed. Grumezescu, AM), Elsevier, pp.261-280. December 2017. DOI: 10.1016/B978-0-323-52725-5.00014-9.
- iii. **Biswajit Mukherjee**, Samrat Chakraborty, Laboni Mondal, Ankan Choudhury, Bhabani Sankar Satapathy, Sanchari Bhattacharya. Antisense oligonucleotide-mediated target specific gene silencing : design, delivery strategies and therapeutic applications. In book: Biotargets and drug delivery approaches. Taylor & Francis Group, 6000 Broken Sound Parkway NW.

**4. Awards and Achievements (Last one year 2016-2017)**

The Association of Pharmaceutical Teachers of India (APTI) Award - Dr. L. V. G. Nargund of Nargund Foundation, Bengaluru, Prof. C. J. Shishoo award for outstanding contribution in Research in Pharmaceutical Sciences-2016 (September 2016) to **Prof. Biswajit Mukherjee**.

**5. Foreign Team Visits**

- 1. A visit by a group of undergraduate, post graduate students, research scholars, faculty members from East West University, Dhaka, Bangladesh
- 2. A visit by a group of undergraduate, post graduate students, research scholars, faculty members from University of Dhaka, Dhaka, Bangladesh
- 3. A visit by a group of faculty from University of Rhode Island, USA
- 4. A pharmacy faculty team from Thailand

**COMPUTER AIDED DESIGN CENTRE**

[Department of Computer Science & Engg.]

Tel.: 2414-6844

Int. : 2457-2960

Director : Prof. Chiranjib Bhattacharjee

**1. A. Courses Offered :**

<b>Name of the Course</b>	<b>Duration of the Course</b>	<b>No. of Courses Offered</b>	<b>Total no.of Students</b>
P.G. Diploma in Applied Remote Sensing and GIS (Geoinformatics)	One year	6	172
Diploma in Multimedia and Animation	One year	3	89
Auto CAD with Auto LISP	11 weeks	7	210
Structural Analysis And Design	10 weeks	2	58
Advanced 3D Modelling	10 weeks	2	39
WebGIS	4 months	1	20
<b>Total</b>		<b>21</b>	<b>588</b>

**1. B. No. of Faculty Members :**

The Centre is conducting various professional short-term courses with the help of 11 visiting faculties.

**2. A. Area of Research Activities (Broad Areas) :** CAD and Geoinformatics

**3. A. Invited Lectures Delivered:** 3 Nos.

Bhatta, B. (2016). *Basics of GIS with hand on*. E-Governance training programme for Senior Level Officers of Govt. Of West Bengal, Administrative Training Institute, Salt Lake, Kolkata, 3 May, National Institute of Electronics and Information Technology, Kolkata.

Bhatta, B. (2016). *Remote Sensing and GIS: A New Avenue for Geographers*. Aliah University, Kolkata, 26 October.

Bhatta, B. (2016). *Introduction to GIS and Remote Sensing*. Bangabasi College, Kolkata, 20 February.

**4. B. Articles Published in Journals :** 2 Nos.

Mithun, Sk., Chattopadhyay, S. and **Bhatta, B.** (2016). Analyzing Urban Dynamics of Metropolitan Kolkata, India by Using Landscape Metrics. *Papers in Applied Geography*, 2(3), 284-297.

Mondal, B., Das, D.N. and **Bhatta, B.** (2016). Integrating cellular automata and Markov techniques to generate urban development potential surface: A study on Kolkata agglomeration. *Geocarto International*, online

**6. Major Achievements :**

In the last 30 years, the Centre has trained more than 9000 industry professionals, students and researchers in Computer Aided Design, Geographic Information System, Remote Sensing, Multimedia, and related areas. The Centre has also executed several R&D and Industrial projects since 1987. Recently the Centre is focusing to offer several cutting edge technologies to the industry professionals and higher education students.

**CONDENSED MATTER PHYSICS RESEARCH CENTRE**

[Department of Physics]

Tel.: 2413-8917

Int. : 2457-2760

Coordinator : Prof. Sujata Tarafdar

E-mail : cmprc.centre@jadavpuruniversity.in

**Major Objectives of the Centre:**

Conducting regular seminars and discussion, pursuing collaborative work in condensed matter and related subjects. Involving faculty of JU as well as other educational institutions in joint research work. Creating awareness among members and students about current research in condensed matter being done in research institutes in Kolkata and elsewhere by inviting scientists to deliver talks on different topics and sharing ideas with them.

**Seminars:**

Two seminars are held every month regularly, these are usually held on Friday afternoon. The topics are mostly related to condensed matter physics, but other subjects of general interest are discussed too. Members from Physics Department JU as well as from other institutes attend.

One-day and two-day seminars are also organized once or twice a year, where there is much larger participation from students, teachers and researchers. Details of the talks during the last year are given below:

**Detailed Report of Activities During April 2016-31<sup>st</sup> March 2017**

Shantanu Das, Reactor Control Division, BARC, Mumbai is now associated with CMPRC as Honorary Research Professor. His recent publications are available at <http://scholar.google.co.uk/citations?user=9ix9YS8AAAAJ&hl=en>

**List of Seminars During April 2016-31<sup>st</sup> March 2017: (No. of Seminars–Date–Name of Speaker–Affiliation–Topic–Attendance)**

- 1) 06/05/2016–Dr. Dipayan Sanyal–CGCRI, Kolkata–Laser Matter Interactions emerging frontiers in advanced characterization and nano-manufacturing–24
- 2) 24.06.16–Dr. Susil Kr. Mita–Deputy controller of The Patent Department. Govt. of India–Patent system and its importance to scientific communities–21
- 3) 08/07/2016–Ms. Ankita Paul;Ms. Anupa Roy Choudhury;Ms. Subhamita Sengupta–CMPRC Lab, JU–Network Analysis Of Crack Patterns In Laponite Clay In Presence of DC Electric Field;Variation In Ionic Conductivity Of Solid Polymer Electrolytes In Presence of Laponite Nanofillers;Pattern formation In Interacting Droplets of Gelatin With Sodium Sulfate–13
- 4) 15/07/2016–Prof. B. Dasgupta–Center for Space Plasma and Aeronomic Research, University of Alabama–Chaotic Magnetic Field lines: their effects on charged particle motion and energization–18
- 5) 12/08/2016–Mr. Biswajit Roy–JU–Liquid Crystal Pattern Formation In Drying Sessile Droplets Of Colloidal Solution–21
- 6) 22/08/2016–Prof. R.Balasubramanian–Institute of Mathematical Sciences, Chennai–Mathematics in Secure Communications–33
- 7) 29/09/2016–Prof.S.K.Bandyopadhyay–VECC,Kolkata–Multifunctional Nanostructured Materials : A New dimension for Materials Science.–17
- 8) 21/10/2016–Ankush Kumar–JNCASR, Bangalore–Evaluating Conducting Network Based Transparent Electrodes from geometrical consideration–23
- 9) 18/11/2016–Ruma Bhattacharjee, Anamika Das–CMPRC, Jadavpur University–Specific Heat of Solids- A non Debye approach–12
- 10) 17/03/2017–Ex Prof Bijan Ganguly–Sova Rani Memorial College, Howrah–Melting Criteria of Nano-Structured Solid–9
- 11) 31/03/2017–Mr. Arnab Kumar Pariari–SRF, Condensed Matter Physics Division, SINP, Kolkata–A novel electronic state of material beyond Topological Insulator–19

**Recent Publications by Members:**

1. Effect of loading history on visco-elastic potato starch gel, Moutushi Dutta Choudhury, Shantanu Das, Sujata Tarafdar; *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 492, 47 – 53; (2016).
2. Unstable crack propagation in LAPONITE® gels: selection of a sinusoidal mode in an electric field; Somasri Hazra, Sudeshna Sircar, Tajkera Khatun, Moutushi Dutta Choudhury, Abhra Giri, Sanat Karmakar, Tapati Dutta, Shantanu Das and Sujata Tarafdar, *RSC Adv.*, 6, 64297; (2016).
3. Influence of gamma irradiation on the electrical properties of LiClO<sub>4</sub>-gelatin solid polymer electrolytes: Modelling anomalous diffusion through generalized calculus; Tania Basu, Sujata Tarafdar, *Radiation Physics and Chemistry* 125, 180–198; (2016).
4. Alternating field induced crack patterns in desiccating Laponite solutions: experiment and simulation; S Sircar, T Khatun, T Dutta and S Tarafdar; *Indian J Phys*, 90 (12), 1355-1366; (2016).
5. A study on the effect of gamma irradiation on Poly [-Ethylene Oxide]: structural modification and variation in the kinetics of isoconversional phenomena; M Mukhopadhyay, M Saha, R Ray and S Tarafdar; *Indian J Phys*, 90 ( 10 ), 1133 - 1147; (2016).
6. A Study of the Rheological Properties of Visco-elastic Materials Using Fractional Calculus; Simantini Majumdar, Somasri Hazra, Moutushi Dutta Choudhury, Suparna Dutta Sinha, Shantanu Das, Tapas Ranjan Middy, Sujata Tarafdar, Tapati Dutta; *Colloids and Surfaces A*, 516, 181-189; (2017).
7. Stress modulation in desiccating crack networks for producing effective templates for patterning metal network based transparent conductors; Ankush Kumar, Rajashekhar Pujar, Nikita Gupta, Sujata Tarafdar, Giridhar U. Kulkarni; *Appl. Phys. Lett.* 111, 013502; (2017).
8. Ground state properties of the bond alternating spin-1/2 anisotropic Heisenberg chain; Susobhan Paul and Asim Kumar Ghosh; *Condens Matter Phys* 20, 23701 (1-16); ( 2017).
9. Enhanced dielectric property and conductivity of triturated copper and cobalt nanoparticles doped PVDF-HFP film and their possible use in electronics industry; A. L. Gayen, D. Mondal, B. K. Paul, D. Roy, P. Bandyopadhyay, S. Manna, R. Basu, S. Das, D.S. Bhar, P. Nandy; *Materials Research Innovation* 21(3), 166-171; (2017).
10. Extraction of electrical energy from alcohol and bi-distilled water, separated by a platinum foil – a Q.E.D. effect; P. Nandy, K. Das, P. Bandyopadhyay, B. K. Paul, D. S. Bhar, S. Das, R. K. Manchanda, A. K. Khurana, D. Nayak; *Energy Education Sc and Tech- Part A: Energy Science and Res*, 35(3), 285-90; (2017).
11. Distinct Antimicrobial activity of different potencies of homeopathic medicine Zincum oxydatum; B. Ghosh, P. Nandy, S. Das, S. Ghosh Dastidar; *Int J Current Medical and Pharmaceutical Research* 3(2), 1287-1289; (2017).
12. A study on the characterization and hemocompatibility of Aurum metallicum for its potential therapeutic application; S. Kar, M. Chakraborty, S. Das, R. Basu And P. Nandy; *Ind J. Research in Homeopathy*, 11(1), 41-47; (2017).
13. Enhancement of Quantum Efficiency of A Dye-Sensitized Electrochemical by using Triturated Zinc Oxide Mixed with Two Organic Dyes, Azure C and Rose Bengal; P. Bandyopadhyay, S. Chakraborty, R. Basu, S. Das, D. S. Bhar, R. K. Manchanda, A. K. Khurana, D. Nayak, P. Nandy; *Int J High Dilution Research*, 16(1), xx-xx; (2017).



14. A pH dependent Raman and surface enhanced Raman spectroscopic studies of citrazinic acid aided by theoretical calculations; Sougata Sarkar, Joydeep Chowdhury, Soumen Dutta, Tarasankar Pal; *Spectrochim. Acta Part A*, 169, 108 - 115; (2016).
15. Targeting G-quadruplex DNA and B-DNA with a natural alkaloid: A comparative spectroscopic study; Paulami Mandal, Maitree Bhattacharya, and Joydeep Chowdhury; *RSC Adv.*, 6, 109846 - 109856; (2016).
16. Silver coated gold nanocolloids entrapped in organized Langmuir–Blodgett Film of stearic acid: Potential evidence of a new SERS active substrate; Somsubhra Saha, Manash Ghosh, Bipan Dutta, Joydeep Chowdhury; *Appl. Surf. Sci.*, 2016, 362, 364 - 373; (2016).
17. Self-assembly of silver nanocolloids in the Langmuir- Blodgett Film of stearic acid: Evidence of an efficient SERS sensing platform; Somsubhra Saha, Manash Ghosh, Bipan Dutta and Joydeep Chowdhury; *J. Raman Spectrosc.*, 2016, 47, 168 - 176; (2016).
18. Charge transfer mechanism and the adsorptive stance of Methylene Blue on Gold Nanocolloids: A vis-à-vis aftermath; Sannak Dutta Roy, Pinaki Sett, Manash Ghosh and Joydeep Chowdhury; *J. Raman Spectrosc.*, 48, 38 – 45; (2016).
19. A Study On Improvisation In A Musical Performance Using Multifractal Detrended Cross Correlation Analysis; Shankha Sanyal, Archi Banerjee, Anirban Patranabis, Kaushik Banerjee, Ranjan Sengupta, Dipak Ghosh; *Physica A*, 462, 67-83; (2016).
20. Musical Improvisation and Brain Correlates: An EEG Based Neurocognitive Study Using Hindustani Music; Shankha Sanyal, Archi Banerjee, Ranjan Sengupta, Dipak Ghosh; *Journal of Biomusical Engineering*, 4(2), 1000119; (2016).
21. Universality and Domain Specificity of Emotion-A Quantitative Non Linear EEG Based Approach; Archi Banerjee, Shankha Sanyal, Ranjan Sengupta and Dipak Ghosh; *Journal of Neurology and Neuroscience*, 8(2), 178-195; (2017).
22. UHF and X band electro-magnetic shielding of advanced devices by some polymer–composites; K. R. Sahu and U. De; *Material Science Research India*, 13(2), 80-94; ( 2016).
23. High Temperature XRD of Phase Transitions in Piezoelectric PbNb<sub>2</sub>O<sub>6</sub> across its Curie temperature; U. De, K. R. Sahu and K. R. Chakraborty; *Material Science Research India*, 13(1), 14-20; (2016).

**Ongoing Projects: (Title–Rs–Duration–Agency)**

1. Preparation of Unilamellar vesicles and study their interaction with ions: A bio-mimetic system PI: Sanat Karmakar–11,58,000/–2013-2016–UGC
2. Study of Visco-elasticity in Bio-polymers through Experiments on Spreading and Adhesion PI: Sujata Tarafdar CI: Sanat Karmakar–25,53,881.00–2013-2016–DST
3. Studies on the influence of ion beam irradiation coupled with gamma irradiation on the behaviour of high melting thermoplastics and polymer nano-composites PI: Ruma Ray CI: Sujata Tarafdar Sanat Karmakar–One research fellow + Annual contingency of Rs. 25,000 /–2015-2018–UGC
4. Understanding the mechanism of action of homeopathic medicine at the molecular level in nano domains in vivo and in vitro systems PI: Dr. P. Nandy CI: Dr. S. Das, Dr. A. Kar–2015-2018–CCRH
5. Studies on the interaction of antimicrobial peptide with phospholipid membranes PI: Sanat Karmakar–43,05,000.00–2016-2019–DBT

- 6 Studies on Heisenberg spin chains with Dzyaloshinskii-Moriya interaction in the presence of fields PI: Asim Kumar Ghosh–18,75,008.00–2016-2019–DAE BRNS
- 7 0MeV Li-ion Damage in Fe-Superconductors with Probing by positron Annihilation and Measurement of Bulk Properties and Structure PI: Udayan De–2017–IUAC
- 8 Investigation of heavy surface damage in Ba(Fe,Co)<sub>2</sub>As<sub>2</sub> crystals by low energy ion beams PI: Udayan De–2016–IUAC

**Invited Talks/Sessions Chaired by Members:**

1. **Sujata Tarafdar** – Invited talk- ‘Transition from Faceted to Dendritic Crystal Growth in GelatinNaCl Droplets’, on 11<sup>th</sup> May, 2016 at EMN conference on Droplets, San Sebastian, Spain
2. **Sujata Tarafdar** – ‘The Island-Mainland Transition identified by Euler Number’ 19<sup>th</sup> Feb. 2017. 4<sup>th</sup> Indian Statistical Physics Community Meeting ICTS, Bangalore.
3. **Tapati Dutta** – ‘Multi-scale patterns formed by Sodium Sulphate in a drying droplet of gelatin: Experiment and Simulation’ 19<sup>th</sup> Feb. 2017. 4<sup>th</sup> Indian Statistical Physics Community Meeting ICTS, Bangalore.
4. **Sujata Tarafdar** – Invited talk ‘Wavy desiccation cracks formed in an electric field’ at ‘Plasticity and Failure in Disordered Materials’ (FRACMEET-2017) during 4-7<sup>th</sup> January, 2017 at Institute of Mathematical Sciences, Chennai
5. **Sujata Tarafdar** – Invited talk ‘, Pattern Formation in Drying Droplets of Complex Fluids’ at RRI, Bangalore, 15<sup>th</sup> September, 2016
6. **Sujata Tarafdar** – Invited talk ‘Effect of electric fields on desiccation crack patterns’ at CeNS, Bangalore, 15<sup>th</sup> September, 2016
7. **Sujata Tarafdar** – Invited talk, ‘Generalized Calculus as the Appropriate Technique for Modelling Anomalous Diffusion, Memory in Capacitors and Related Problems’ Asian Conference on Solid State Ionics , IIT Patnam 27-30 November 2016
8. **Papiya Nandy** – Invited talk - “The nanoparticle with a difference” in Amity University, 2017.
9. **Papiya Nandy** – Invited talk - “Is Homeopathy science ?” in Ind. Inst. Eng. Sc. Tech, 2017.
10. **Joydeep Chowdhury** – Invited talk - “Template driven SERS active substrates by Langmuir-Blodgett technique” in International Conference on Perspective of Vibrational Spectroscopy, 2016.
11. **Joydeep Chowdhury** – Invited talk - “Raman Spectroscopy : A molecular detective” in Lectures for Undergraduate Physics Hons students of Sammilani Mahavidyalaya, 2016.
12. **Joydeep Chowdhury** – Invited talk - “Self-assembly of metal nanocolloids entrapped in Langmuir Blodgett Film templates: Evidence of efficient SERS sensing platforms” in International Conference on Functional Nanomaterials, 2016.
13. **Joydeep Chowdhury** –Invited talk - “Raman spectroscopy: Sailing through the confluence of Physics & Biology” in National Conference on Biophysics: Impact on Today’s society, 2016.
14. **Shankha Sanyal** –Invited talk - “Musicality Of Human Brain through Fractal Microscope: A Bridge between Physics, Music & Mind” in Ninth Science Communicators’ Meet, 2017.
15. **Udayan De**–Invited talk - “Polymer Composites for Flexible Electromagnetic Shields” 5<sup>th</sup> International Conference on Natural Polymer, Bio-Polymers, Bio-Materials, Their Composites, Nano-composites, Blends, Ions, Polyelectrolytes and Gels: Macro to Nano Scales, 2017.

## DISABILITY STUDIES AND REHABILITATION

Tel. : 2414-6102

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Jt. Coordinators : Dr. Muktipada Sinha

Sri Manojit Mondal

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### Objective

The main objective of the Centre for Disability Studies and Rehabilitation is to extend social service to the **students with special needs** in the University as well as to the society at large. The service from the Centre is mainly rendered through two directions- research works and special support to the **students with special needs** for higher education. To encourage higher education among the students with special needs, advanced equipment in the field of education is essential. The Centre ensures the bridge between the **students with disability** and their aim of higher education with the support of technology. The Centre is providing the guidance and support to students to help them become independent.

### Special Support Service

**A. Audio Book Library:** The primary objective of this project is to provide equal educational opportunities to the students with disability especially the **visually impaired** in higher education. The latest technique to provide reading materials to *visually impaired students* is 'Audio Book' or 'Talking Book' in electronic format. The Centre has developed an **Audio Book Library** based on the demands from the students coming largely from the Department of Bengali, English, Sanskrit, International Relations and History, both in under-graduate and post-graduate levels as per the syllabus of Jadavpur University. We also provide study materials and class notes in electronic format for the disabled students of the University as and when necessary.

**Method:** At present one Book-reader (associated with All India Radio, Kolkata) and one Voice Editor have been appointed on temporary basis for the preparation of audio books. The book readers first record the book in MP3 format through voice recorder and then the voice editor make the necessary corrections in that MP3 track. The corrected tracks are then separated in chapters as per the contents of the book and preserved in our library for lending, after being written in CDs or DVDs. The Centre has produced a total of 166 CDs and DVDs and 703 Audio cassettes as Audio Book.

**B. Personality Grooming and Communicative Language Courses:** The Centre has started free Personality Grooming and Communicative Language Course (Foundation Course) for the **students with special needs** of our University.

**C. Basic Computer Course:** The Centre has 15 independent computers that support JAWS (Screen Readable Software) to conduct free computer training programme in basic level from time to time especially for the **visually impaired students** of our University. We strongly believe that computer literacy will give them enough confidence for their higher studies and also help them in their professional field in future.

- D. Assistive Technological Supports:** We provide a 40 character Braille Tactile reader (manufactured by WEBEL) for the visually impaired students of the University for reading their documents in Braille format. The Centre provides free digital voice recorders to some of the needy visually impaired students of our University. We, ourselves installed JAWS software in the Central Library and in the departmental library of International Relations and Sanskrit Department.
- E. Other Assistive Supports:** We also provide scribes for the disabled students of the University from time to time as per their semester examinations. We also hold periodic meetings of the students with disability with the University Authority including the Vice Chancellor relating to their needs and demands.
- F. Counselling Course:** The Centre started a one year post graduate diploma course in “Guidance, Psychological Counselling & Family Therapy” (passed by Executive Council of Jadavpur University) on and from 2<sup>nd</sup> May 2013, which may be a good prospect for the students in the field of counselling. Total student strength of this course is 30. A dozen of Resource persons and Faculties from different universities and some Psychiatrists as well as Psychological Counsellors are appointed for this course.

#### **Intensive Research Work of the Cell**

Two research projects are undergoing at the Centre currently.

1. **Ongoing Project of Critical Directory on Disabilities**

The main objective of the project is to prepare and maintain a directory that will contain up-to-date database of the **students with special needs** and the Teaching and Non-teaching Staff of the university. The directory will also contain details of laws implemented for the disabled people and various governmental and nongovernmental organizations working for the impaired persons with an aim to provide guidance. This project will be continued with every new admission in every academic year followed by a publication of a booklet containing the database of the **students and staff with special needs**.

2. **Education and Awareness among Persons with Disability in Sundarban Areas**

The Centre completed a field survey on the above mentioned topic at four blocks (Kakdwip, Kultali, Gosaba and Hingalgunj) in the Sunderban area under the supervision of Sri Manojit Mandal, Jt. Coordinator and Sri Sujit Kumar Mandal, Dept of Comparative Literature, JU. We have completed the data collection through the questionnaire regarding details of various types of disability, educational progress, school dropout disabled children in that area and rights and scopes of them. We are planning to start our next field survey in North 24 parganas in 2017-2018.

3. **Smart Phone based Voice Assisted Campus Navigation System**

The Centre started a 1 year project on the Development of Smart Phone based Voice Assisted Campus Navigation System to help the Visually Impaired Persons. The objective of this project is to develop an Android operating system based smart phone application which will provide audible messages to persons with vision impairment while approaching different areas within Jadavpur University campus.

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**Seminars and Others :**

1. On 6 December 2016, the Centre celebrated World Disability Day by felicitating the disabled employees and students of the University followed by Lecture and Workshop on 'Mindfulness' sponsored by UGC. The celebration programme was inaugurated by our honourable Vice-Chancellor Professor Suranjan Das and honourable Registrar of Jadavpur University, Professor Pradip Kumar Ghosh. Jeeja Ghosh of IICP was invited as special guest in the programme.
2. On 20 - 21 December 2016, the Centre organised a UGC sponsored International Conference in collaboration with WBCUPA, JU on "Higher Education, Universities and Excellence: The Bengal Narrative". The Conference was inaugurated by Dr Partha Chattopadhyay, Hon'ble MIC, Higher Education, WB, in presence of Professor Suranjan Das, VC, JU. The inaugural session was followed by Keynote Address by Prof Santanu Bhattacharya, Director, Indian Association for the Cultivation of Science, Kolkata. Prof Paul Greenough, IOWA University, USA, Prof Somnath Dasgupta, Jamia Milia Islamia University, New Delhi, was among the other eminent speakers in this conference. The Vice Chancellors from Vidyasagar University, North Bengal University, Kazi Nazrul University and Diamond Harbour Women's University were present during the occasion.
3. On 31st March, 2017, the Centre organised a UGC sponsored National Seminar on "Science, Technology and Disability: A National Perspective" to celebrate National Science Day. The celebration programme was inaugurated by Sri Biman Bandyopadhyay, Honorable Speaker, West-Bengal Legislative Assembly in presence of our Vice Chancellor Vice-Chancellor Professor Suranjan Das, followed by the Keynote Address by Dr. Garga Chatterjee, Indian Statistical Institute, Kolkata.

**Publications :**

1. International Research Journal, Volume II, 'Persons with Special Needs and Rehabilitation Management', special issue on 'Disability Today: Definitions, Rights and Rehabilitation' (ISSN: 2321-9254), enlisted in UGC list of Journals, 2016.
2. Newsletter 3<sup>rd</sup> Issue.

## **IC DESIGN & FABRICATION**

**(Department of Electronics & Telecommunication Engineering)**

Phone : 2414-6217

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### **Fabrication Laboratory**

#### **1. Current Research Activities:**

1. MEMS based metal oxide gas sensors
2. Design and Simulation of RF MEMS based filters
3. Design and simulation of Analog/Mixed signal circuits, data converters.
4. Graphene synthesis and its application in gas sensor
5. Design and Implementation of Microcontroller based gas leak detector
6. Development of MEMS based micro heater using finite element method for gas sensor application.
7. CMOS MEMS Integration and Signal Conditioning of Gas Sensor
8. Design and Simulation of RF MEMS based Capacitive Switch
9. Electronic Devices
10. Embedded Systems
11. III-V Heterostructure Devices
12. High Frequency VLSI Design
13. MEMS
14. MEMS based Metal Oxide Gas Sensors
15. MEMS based Pressure Sensors
16. Microstrip Antenna
17. Microstrip Antennas and Circuits
18. Microstrip Filters
19. Microstrip Wearable Antennas
20. MOS Device Physics
21. Porous Silicon Formation by Alumina Template
22. Porous Silicon Low Pressure Sensors
23. Power Optimization of VLSI Circuits
24. RF CMOS
25. RFID and its Applications
26. RF MEMS
27. RF VLSI
28. Semiconductor Device



29. Semiconductor Device and Photonics
30. Simulations of Nanodevice Models
31. Single Electron & Spintronics Devices and their Applications in VLSI Circuits
32. Study of Nanocrystalline Silicon, Zinc Oxide and its Application on Solar Cells and Gas Sensors
33. Thin Film and Related Devices
34. Ultra Low Power VLSI Circuit
35. VLSI Circuit Design

**2. Equipments Purchased:**

1. IC Design and Fabrication Centre:  
NIL
2. SMDP-III:
  - a. HP workstation Z-440: 5Nos
  - b. DIGILENT ANALOG DISCOVERY (Portable Analog Circuit Design Kit)
  - c. Xilinx FPGA Kit –
    - i. ZYBO BOARD: 5 Nos
    - ii. NEXYS 4 DDR: 5 Nos
    - iii. BASYS 3: 10 Nos

**3. No. of Students who applied and got admitted:**

**[a] PhD Awarded:**

**Prof. Chandan Kumar Sarkar**

1. Atanu Kundu with thesis title “Study of Subthreshold Analog and RF Performance Trends of Multi-Gate MOSFETs in Sub-nanometer Regime”
2. Arka Dutta with thesis title “Reliability Analysis of Advanced Nano MOS Devices for Analog and RF Applications”
3. D. Godwinraj with thesis title “Advanced Heterostructure Devices for Power Applications”
4. Chitta Dutta with thesis title “On the modeling of Advanced Nanoscale MOS Devices”

**Prof. Bhaskar Gupta**

1. Amrita Chakraborty with thesis title “Development of RF MEMS Based Compact Phase Shifters”
2. Sriparna Mitra with thesis title “Modeling and Optimization of Dielectric Resonator Antennas”
3. Sanghamitra (De) Dasgupta with thesis title “Optimal Design of Planar Antennas and Arrays for Power Harvesting”

**Prof. Subir Kumar Sarkar**

4. Dr. Pranab Kishore Dutta with thesis title “Performance Improvement for Future Nanodevices and Explore some of the applications”
5. Dr. (Mrs) Joyashree Bag with thesis title “Adaptive VLSI Design for Wireless Communication Systems”
6. Dr. Amit Jain with thesis title “Single Electron Transistor and its Hybridization with MOSFET for increasing density of integration and reducing Power consumption”
7. Dr. Abdur Rahaman Sardar with thesis title “Some studies on routing algorithm and security in communication network including optical network and sensor network”

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**Dr. Sudipta Chattopadhyay**

8. Abhijit Chandra with thesis title “Design of Hardware Efficient Multiplier-less Low-pass FIR Filter using Evolutionary Algorithms”.

**[b] PhD Registered:**

**Prof. Chandan Kumar Sarkar**

1. Kalyan Biswas with thesis title “Study and Design of Emerging Nanoscale MOSFETs”.
2. Swapan Das with thesis title “Development of Power Efficient Smart Microsystem for the Detection of Explosive Gases using MEMS based Gas sensor”.

**Prof. Bhaskar Gupta**

3. Rinki Ghosal with thesis title “Design and Analysis of Dielectric Resonator Antennas (DRA) for Wide Band Applications”
4. Arka Bhattacharyya with thesis title “Applications of Theory of Characteristic Modes to Antenna Design”
5. Suman Pradhan with thesis title “Development and Extension of Multiport Network Model for Planar Antennas and Arrays”.
6. Mishor Biswas with thesis title “Investigations on Microstrip Patch Antennas with Unexplored Shapes”.

**Prof. Subir Kumar Sarkar**

7. Tapas Chakrabarti with thesis title “Modelling and Simulation of Efficient Nanoscale MOSFET and Photovoltaic Devices”
8. Priyanka Saha with thesis title “Analytical Modelling and Simulation of Low Dimensional Devices with improved performance”.
9. Manas Ranjan Nayak with thesis title “Information Hiding and System Design for Copyright Protection .”

**Dr. Sudipta Chattopadhyay**

10. Subharata Banerjee with thesis title “Efficient Design of Turbo Code for Modern Communication Systems”.

**Dr. Sayan Chatterjee**

11. Soumyo Chatterjee with thesis title “Analysis and Design of Non-Uniformly Excited Antenna Arrays Using Evolutionary Algorithms in Restricted Search Space”.
12. Tarun Kumar Das with thesis title “Multi-Spurious Harmonic Suppression in Miniaturized Planar Bandpass Filters”.
13. Souma Guha Mallick with thesis title “Design of Passive SIW Components for Microwave and Millimeter wave Applications”.
14. Amartya Banerjee with thesis title “Design and development of Wideband Dual Polarized Slotted Array Antenna”
15. Sourav Das Chowdhury with thesis title “Topic Design of High Power CW and Pulse Fiber Lasers and Amplifiers”.
16. Posiba Mostafa with thesis title “Study on high frequency reconfigurable CMOS based PLL”.

**Dr. Chandrima Mondal**

17. Sumedha Dasgupta with thesis title “ Nanoscale III-V Compound Semiconductor Field Effect Transistor for High Performance Analog & Logic Application”.

**[c] Masters Degree Awarded:**

**Prof. Chandan Kumar Sarkar**

1. Srabanti Das with thesis title “Mathematical Modelling of Schottky Barrier Pocket Doped Tunnel FET”.

**Prof. Bhaskar Gupta**

2. Sriparna De with thesis title “Study on Phantom Model for SAR measurement”

**Prof. Chayanika Bose**

3. Banasree Das with thesis title, “Modelling and simulation of Resonant Tunneling Diode”

**Dr. Sudipta Chattopadhyay**

4. Ananya Dey with thesis title “ Improved Adaptive Equalization Algorithms using Intelligent Computational Techniques: Extension to WiMAX systems”.

**Dr. Sayan Chatterjee**

5. Debmalya Das with thesis title “Characterization of Gilbert Cell Mixer by RF CMOS” .
6. Pratik Mukherjee with thesis title “Design of Low Noise Amplifier using RF CMOS Technology”
7. Moumita Das with thesis title “Design of a Voltage Controlled Oscillator Using various Topologies”

**Dr. Chandrima Mondal**

8. Soumen Halder with thesis title “Analytical Modelling and Simulation Characteristics of Double Gate Junction MOSFET”.
9. Priyanka Das with thesis title “Investigation on Nanoscale MOSFETs with Novel Channel Materials for Logic Applications”.

**SMDP Laboratory**

10. Antardipan Pal with thesis title “Some studies on the Design of PLL based Frequency Synthesizer using 65nm MOS Technology” has been awarded M.Tech in VLSI Design and Microelectronics Technology under the guidance of Prof. Salil Kumar Sanyal (2016-2017) [Worked in SMDP- III Lab]

**[d] M.Tech Thesis Ongoing:**

**Prof. Subir Kumar Sarkar**

1. Aman Mahajan with thesis title “Analytical Modeling of Gate Material and Gate dielectric Engineered Triple metal TFET”.
2. Sayantan Sharangi with thesis title “A Novel Gate-engineered Junction-less silicon FET structure for SDR and DDR IMPATT-Two Dimensional Analytical Modeling and Simulation”.
3. Eshita Mitra with thesis title “3D Analytical Model of triple metal Tri Gate Silicon-On-Nothing Tunnel Field Effect Transistor”.
4. Sreeparna Barua with thesis title “Comparative study of Pd modified ZnO and CuO based thin film gas sensor and effects of Hydrogen sensing application”.
5. Tripty Kumari with thesis title “Analytical Modelling and performance analysis of Tunnel Field Effect Transistor with renovated structures” .

**Prof. Chayanika Bose**

6. Barnisa Chottopadhyay with thesis title “TCAD Simulation of Semiconductor Nanostructures and influence of Hydrostatic Pressure on them”.

**Dr. Sudipta Chattopadhyay**

7. Koyel Dey with thesis title “ Design of an 8-Bit URDHVA-TIRYAGBHYAM Multiplier using 16nm MOS Technology”.

**Dr. Sayan Chatterjee**

8. Rajesh Dolai with thesis title “Design of PLL based Frequency Synthesizer”.
9. Amit Mondal with thesis title “Multi-crystalline Solar Cells”.

**[4] List of Publications:**

**[A]Books/Book Chapters:**

**Books:**

**Prof. Chandan Kumar Sarkar**

1. A Sarkar, S De, M Chanda, **C K Sarkar**, Low Power VLSI Design: Fundamentals. Walter de Gruyter GmbH & Co KG, August 8, 2016.

**Book Chapters :**

**Prof. Subir Kumar Sarkar**

2. Tiya Dey Malakar, Partha Bhattacharyya and **Subir Kumar Sarkar**, “Surface Potential based Threshold Voltage Modeling of Work Function Engineered Gate Recessed Source /Drain IR SOI/SON MOSFET for better nanoscale device performance”, International Conference on Computational Science and Engineering, Kolkata, India. October 4-6, 2016,.Published as a book chapter in Computational Science and Engineering, Taylor & Francis Group, 2017, pp-239-242, ISBN 978-1-138-02983-5
3. Arpita Ghosh and **Subir Kumar Sarkar**, “ Comparative Study of Single Electron Threshold Logic Based and SET-CMOS Hybrid Based 1 Bit Comparator”, Computational Science and Engineering proceedings of the International Conference on Computational Science and Engineering (ICCSE2016), Kolkata,India, 4-6 October 2016, published as a book chapter,CRC Press,Taylor & Francis Group ,2017,Pages 235–238,ISBN: 978-1-138-02983-5.
4. Anup Dey, Bijoy Kantha and **Subir Kumar Sarkar**, “Study the effects of annealing temperatures on sol-gel derived TiO<sub>2</sub> sensing element”, International Conference on Computational Science and Engineering, Kolkata, India. October 4-6, 2016. Published as a book chapter in Computational Science and Engineering, Taylor & Francis Group, 2017, pp-247-250, ISBN 978-1-138-02983-5

**[B] Journal Publications :**

**Prof. Chandan Kumar Sarkar**

1. Chanda Rahul Das, Atanu Kundu, **Chandan K Sarkar**, “Analytical modeling of label free biosensor using charge plasma based gate underlap dielectric modulated MOSFET.” Super lattices and Microstructures, Elsevier, 104, pp. 451-460, March 2017.
2. Ankush Chattopadhyay, Rahul Das, Arpan Dasgupta, Atanu Kundu, **Chandan K Sarkar**, “A linearity based comparison between symmetric and asymmetric lateral diffusion for a 22 nm Underlapped DG-MOSFET.” Superlattices and Microstructures, Elsevier, April 2017.

3. S Nag, B Das, A Basu, J Das, DP Bhattacharya, **CK Sarkar**, "Energy loss to intravalley acoustic modes in nano-dimensional wire structures at low temperatures." *Physica E: Low-dimensional Systems and Nanostructures*, Elsevier, 87, pp. 237-241, March 2017.
4. A Chattopadhyay, A Dasgupta, R Das, A Kundu, **CK Sarkar**, "Effect of spacer dielectric engineering on Asymmetric Source Underlapped Double Gate MOSFET using Gate Stack." *Superlattices and Microstructures*, Elsevier, 101, January 2017, pp. 87-95.
5. K Biswas, A Sarkar, **CK Sarkar**, "Spacer engineering for performance enhancement of junctionless accumulation-mode bulk FinFETs." *IET Circuits, Devices & Systems* 11, no. 1, pp. 80-88, February 2017.
6. D Dutta, E Bontempi, Y You, S Sinha, J Das, SK Hazra, **CK Sarkar**, S Basu, "Surface topography and hydrogen sensor response of APCVD grown multilayer graphene thin films." *Journal of Materials Science: Materials in Electronics*, Springer, 28, no. 1, pp. 157-166, January 2017.
7. S Adak, SK Swain, H Rahaman, **CK Sarkar**, "Impact of gate engineering in enhancement mode n++ GaN/InAlN/AlN/GaN HEMTs." *Superlattices and Microstructures*, Elsevier, 100, pp. 306-314, 2016.
8. K Roy, **CK Sarkar**, CK Ghosh, "Antibacterial mechanism of biogenic copper nano particles synthesized using *Heliconia psittacorum* leaf extract." *Nanotechnology Reviews* 5, no. 6, pp. 529-536, 2016.
9. S Mukherjee, S Roy, A Dutta, **CK Sarkar**, "Study on effect of back oxide thickness variation in FDSOI MOSFET on analogue circuit performance." *IET Circuits, Devices & Systems* 10, no. 6, pp. 497-503, 2016.
10. S Chakraborty, A Dasgupta, R Das, A Kundu, **CK Sarkar**, "Impact of Asymmetric Dual-k Spacer in the Underlap Regions of Sub 20 nm NMOSFET with Gate Stack." *Superlattices and Microstructures* 98, pp. 448-457, 2016.
11. S Roy, S Mukherjee, A Dutta, **CK Sarkar**, "Effect of back oxide thickness of FDSOI on SRAM performance." *Superlattices and Microstructures* 98, 2016, pp. 316-324.
12. S Ghosh, K Koley, **CK Sarkar**, "Study of process induced variability of germanium-pTFET in analog and RF domain." *Microelectronics Reliability* 65, pp. 47-54, 2016.
13. S Ghosh, K Koley, SK Saha, **CK Sarkar**, "High-Performance Asymmetric Underlap Ge-pTFET With Pocket Implantation." *IEEE Transactions on Electron Devices* 63, no. 10, pp. 3869-3875, 2016.
14. GS Sivaram, S Chakraborty, R Das, A Dasgupta, A Kundu, **CK Sarkar**, "Impact of Lateral Straggle on the Analog/RF Performance of Asymmetric Gate Stack Double Gate MOSFET." *Superlattices and Microstructures*, Elsevier, 97, pp. 477-488, 2016.
15. S Adak, SK Swain, H Pardeshi, H Rahaman, **CK Sarkar**, "Effect of Barrier Thickness on Linearity of Underlap AlInN/GaN DG-MOSHEMTs", *NANO: Brief Reports and Reviews* (World Scientific Publishing Company), Volume 12, Issue 01, pp.-1750009, January 2017.
16. R Das, S Chakraborty, A Dasgupta, A Dutta, A Kundu, **CK Sarkar**, "Analysis of high-k spacer on symmetric underlap DG-MOSFET with Gate Stack architecture." *Superlattices and Microstructures*, Elsevier, 97, pp. 386-396, 2016.

17. SK Swain, S Adak, SK Pati, **CK Sarkar**, "Impact of InGaN back barrier layer on performance of AlInN/AlN/GaN MOS-HEMTs." *Superlattices and Microstructures*, Elsevier, 97, pp. 258-267, 2016.
18. Sarosij Adak, Sanjit Kumar Swain, Arka Dutta, HafizurRahaman, **Chandan Kumar Sarkar**, Influence of Channel length and High-K oxide Thickness on Subthreshold DC Performance of Graded Channel and Gate stack DG-MOSFETs NANO: Brief Reports and Reviews (World Scientific Publishing Company) Accepted: 17 May 2016. Volume 11, Issue 09, pp 1650101.
19. A Dutta, K Koley, SK Saha, **CK Sarkar**, "Physical Insights into Electric Field Modulation in Dual-k Spacer Asymmetric Underlap FinFET." *IEEE Transactions on Electron Devices* 63, no. 8 (2016): 3019-3027.
20. P Dutta, K Koley, A Dutta, **CK Sarkar**, "An Analytical BTBT Current Model of Symmetric/Asymmetric 4T Tunnel Double Gate FETs with Ambipolar Characteristic." *IEEE Transactions on Electron Devices* 63, no. 7 (2016): 2700-2707.

**Prof. Bhaskar Gupta**

21. Sudipta Maity and **Bhaskar Gupta**, "Analysis of Horizontally Inhomogeneous Rectangular Dielectric Resonator Antenna" accepted for publication to *International Journal of Electronics and Communications (AEÜ)* on 4th April, 2017.
22. Amrita Chakraborty and **Bhaskar Gupta**, "Utility of RF MEMS miniature switched capacitors in phase shifting applications", *International Journal of Electronics and Communications (AEÜ)*, Vol. 75, May 2017, Pp. 98-107 (Published online).
23. Sudipta Maity and **Bhaskar Gupta**, "Simple Procedure to Evaluate Singularity Free Expressions for Radiation Patterns of an Antenna with Rectilinear Symmetry," accepted for publication in *Waves in Random and Complex Media*.
24. Sudipta Maity and **Bhaskar Gupta**, "Approximate Investigations on Isosceles Triangular Microstrip Antenna in Fundamental Mode," *Microwave and Optical Technology Letters*, Vol. 59, Issue 3, pp. 614-618, March, 2017.
25. Amrita Chakraborty and **Bhaskar Gupta**, "RF MEMS Phase Shifters: An Overview", *IEEE Microwave Magazine*, vol. 18, No. 1, pp. 22-41, Jan.-Feb. 2017.
26. Sudipta Maity and **Bhaskar Gupta**, "Theoretical Investigations on Equilateral Triangular Dielectric Resonator Antenna", *IET Microwaves, Antennas & Propagation*, vol. 11, issue 2, pp. 184-192, Jan. 2017.
27. S. Maity and **B. Gupta**, "Experimental Investigations on Wideband Triangular Dielectric Resonator Antenna," in *IEEE Transactions on Antennas and Propagation*, vol. 64, no. 12, pp. 5483-5486, Dec. 2016.
28. Milind Thomas Themalil, JibenduSekhar Roy and **Bhaskar Gupta**, "Design of a Circularly Polarized T – Stub Coupled Microstrip Patch Antenna for WLAN", *Asian Journal of Applied Sciences*, vol. 4, no. 4, August, 2016.
29. Amrita Chakraborty and **Bhaskar Gupta**, "Development of Compact 180 degree Phase Shifter using MEMS Technology", *Sensors and Actuators A: Physical (Elsevier)*, vol. 247, pp. 187-198, 2016.



30. Sanghamitra Das Gupta and **Bhaskar Gupta**, "A Compact Rectangular Microstrip Patch Antenna Design For Portable Energy Harvesting Applications", IUP Journal Of Electrical & Electronics Engineering, Vol. 9, no. 1, pp. 7-16, Jan. 2016.

**Prof. Subir Kumar Sarkar**

31. Pritha Banerjee and **Subir Kumar Sarkar**, "3D Analytical Modeling of Dual Material Triple Gate Silicon-on Nothing MOSFET", IEEE Transactions on Electron Devices, Vol.64, Issue 2, pp-368-375, February 2017.
32. Arpita Ghosh, Amit Jain, S.Gharami and **Subir Kumar Sarkar**, "Small Signal model for Single electron Transistor: Part 1", in Journal of Computational Electronics, Springer, DOI: 10.1007/s10825-017-0971-1, February 2017.
33. Tiya Dey Malakar, Partha Bhattacharyya and **Subir Kumar Sarkar**, "Analytical surface potential modeling based small signal analysis and RF performance characterization of DMG SOI MOSFET for better RFIC application", IETE Technical Review, pp-1-10, February, 2017.
34. Moutushi Singh, Abdur Rahaman Sardar, Koushik Majumder and **Subir Kumar Sarkar**, "A Lightweight Trust Mechanism and Overhead Analysis for Clustered WSN", IETE Journal of Research, pp-1-12, February, 2017.
35. Anup Sarkar, Sk. Halim, Ankush Ghosh, and **Subir kumar Sarkar**, "Implementation of PMN-PT/Ni based NOR Gate with Biaxial Anisotropy off ultralow energy dissipation", in Journal of Nanoelectronics and Optoelectronics, Vol.12, pp-1-6, December 2016.
36. Manas Ranjan Nayak, Joyshree Bag, Souvik Sarkar and **Subir Kumar Sarkar**, "Hardware Implementation of a novel water marking algorithm based on phase congruency and singular value decomposition technique", AEU-International Journal of Electronics and Communications, Elsevier, Vol.71, pp-1-8, November 2016.
37. Amit Jain, Arpita Ghosh, N. Basanta Singh and **Subir Kumar Sarkar**, "A Nanoelectronic Neuron Cell for Image Processing Application Based on CNN Architecture", Journal of Nanoelectronics and Optoelectronics, ASP, Volume 11, Number 3, pp. 356-362(7), June 2016.
38. Arpita Ghosh, Amit Jain, N. Basanta Singh and **Subir Kumar Sarkar**, "A modified macro model approach for SPICE based simulation of single electron transistor" Journal of Computational Electronics, Springer, DOI 10.1007/s10825-015-0790-1, Vol. 15, Issue 2, pp. 400-406, June-2016.
- Navjeet Bagga, Saheli Sarkhel and **Subir Kumar Sarkar**, "Exploring the Asymmetric Characteristics of a Double Gate MOSFET with Linearly Graded Binary Metal Alloy Gate Electrode for Enhanced Performance", IETE Journal Of Research, DOI:10.1080/03772063.2016.1176542, April, 2016.

**Dr. Sudipta Chattopadhyay**

39. S. Banerjee, **S. Chattopadhyay**, "Power Optimization Of Three Dimensional Turbo Code Using A Novel Modified Symbiotic Organism Search (MSOS) Algorithm", Wireless Personal Communications. 2016; 92(3):941-968.
40. Abhijit Chandra and **Sudipta Chattopadhyay**, "Novel Minimum Index Floating Point Representation for the Design of Powers-of-two Filter", International Journal of Electronics Letters (Taylor & Francis), vol. 5, no. 1, pp. 69-81, 2017.

41. Subhabrata Banerjee, **Sudipta Chattopadhyay**, "Evaluation of System Performance by Adding a Fourth Dimension to Turbo Code", International Journal of Communication Systems, Wiley. (Accepted)
42. Subhabrata Banerjee, **Sudipta Chattopadhyay**, "Realization of Proposed Four Dimensional Turbo Code (4D-TC) using Simplified Augmented State Diagram", Wireless Network, Springer. (Accepted).
43. Subhabrata Banerjee, Sudipta Chattopadhyay, "A Novel Modified Ant Lion Optimizer Algorithm: Extension to Proposed 4D-TC", Swarm Intelligence - From Concepts to Applications, IET, 2017, (Accepted).

**Dr. Chandrima Mondal**

44. **Chandrima Mondal**, Abhijit Biswas, "Performance Analysis of Nanoscale GeSn MOSFETs for Mixed-Mode Circuit Applications", Materials Science in Semiconductor Processing, Elsevier, Accepted vol. 66, pp. 109–116, April 2017.

**[C] Conference Paper Publications (2016-2017) :**

**Prof. Bhaskar Gupta**

1. Kaushik Patra, Sayantan Dhar and **Bhaskar Gupta**, "Radiation from Simple and Perturbed Arbitrarily Curved Microstrip Lines", in proceedings of APMC 2016, Dec. 5-9, 2016.
2. Rinki Ghosal and **Bhaskar Gupta**, "Determination of Resonant Frequency of Stacked Cylindrical Dielectric Resonator Antenna (DRA) for TM modes," , in proceedings of MMS (Mediterranean Microwave Symposium) Abu Dhabi, UAE, 14-16 November, 2016.

**Prof. Subir Kumar Sarkar**

3. Subhashis Roy, Bikram Biswas, Anup Dey, Bijoy Kantha and **Subir Kumar Sarkar** "A Proposal for Detection Ethanol Leakage using WO<sub>3</sub> Thin Film Sensor with RFID Technology" First International Conference (Springer) on Computational Intelligence, Communications, and Business Analytics (CICBA-2017) Calcutta Business School, India. March 24-25, 2017.
4. TiyaDeyMalakar, Partha Bhattacharyya and **Subir Kumar Sarkar**, "Quantum Analytical Modelling of Threshold Voltage for Linearly Graded Alloy Material Gate Recessed S/D SOI MOSFET", in proceedings of IEEE International Conference on Devices for Integrated Circuits (DEVIC-17), Kalyani Govt. Engg. College, March 23-24, 2017.
5. Tripty Kumari and **Subir Kumar Sarkar**, "Performance Analysis and Comparative Study of Triple Metal Double Gate TFET with SOI equivalent", in proceedings of IEEE International Conference on Devices for Integrated Circuits (DEVIC-17), Kalyani Govt. Engg. College, March 23-24, 2017.
6. Saheli Sarkhel, Priyanka Saha and **Subir Kumar Sarkar**, "Parasitic Fringe Capacitance Modeling of Work Function Engineered Double Gate TFET", IEEE International Conference on Devices for Integrated Circuits (DEVIC-17), Kalyani Govt. Engg. College, March 23-24, 2017.
7. Pritha Banerjee, Aman Mahajan and **Subir Kumar Sarkar**, "3-D Analytical Modeling of Gate Engineered Tri-gate SON MOSFET", in proceedings of IEEE International Conference on Devices for Integrated Circuits (DEVIC-17), Kalyani Govt. Engg. College, March 23-24, 2017.

8. AnupDey, Sreeparna Barua, Subhashis Roy and **Subir Kumar Sarkar**, “ Synthesis, fabrication and characterization of ZnO based thin films prepared by sol-gel process and H<sub>2</sub> gas sensing performance”, in proceedings of International Conference on Emerging Trends In Nanoscience and Nanotechnology (ICETINN) 2017, Sikkim ManipalUniversity,Sikkim, March 16-18 2017.
9. Tripty Kumari, Dinesh Kumar Dash, Priyanka Saha and **Subir Kumar Sarkar**, “Modeling of Double material Hetro-dielectric strained SON PNP TFET for improved ON current”, in proceedings of International Conference on Emerging Trends In Nanoscience and Nanotechnology (ICETINN) 2017, Sikkim Manipal University, Sikkim, March 16-18 2017.
10. Aman Mahajan ,Dinesh Kumar Dash and **Subir Kumar Sarkar** “Analytical Modeling of Triple Metal Hetero Dielectric DG SON TFET”, in proceedings of International Conference on Emerging Trends In Nanoscience and Nanotechnology (ICETINN) 2017, Sikkim Manipal University, Sikkim, March 16-18 2017.
11. Priyanka Saha, Pritha Banerjee, Dinesh Kumar Dash and **Subir Kumar Sarkar**, “Exploring the short channel characteristics of Asymmetric Junctionless Double Gate Silicon On Nothing MOSFET”,in proceedings of International Conference on Emerging Trends In Nanoscience and Nanotechnology (ICETINN) 2017, Sikkim Manipal University, Sikkim, March 16-18 2017.
12. Subhashis Roy, Anup Dey, Bikram, Biswas and **Subir Kumar Sarkar** “Investigation of Pt and Pd modified WO<sub>3</sub> and ZnO based Thin Film Sensors for Ethanol Sensing”, in proceedings of International Conference on Emerging Trends in Nanoscience and Nanotechnology (ICETINN) , Sikkim Manipal Univesity, Sikkim, India. March16-18, 2017.
13. Subhashis Roy, Anup Dey, Bikram Biswas and **Subir Kumar Sarkar** “Study the Influence of Pd Surface Sensitization on WO<sub>3</sub>-Si Based Hydrogen Sensor”, in proceedings of Fourth International Symposium On Semiconductor Materials And Devices (ISSMD-4)2017, Organized by School of Materials Science and Nanotechnology, Jadavpur University, Kolkata, India. March 8-10, 2017.
14. Khomdram Jolson Singh, Munan Kr. Thakur, N. Sanjeev, L. Aneka, Basob Roy and **Subir Kumar Sarkar**, “ Numerical Design and Analysis of Graphene based a-Si/c-Si HIT Solar Cells”, in proceedings of International Conference on Advances in Nanotechnology (ICAN) 2017, Don Bosco University, Assam, January 9-13 2017.
15. Arpita Ghosh and **Subir Kumar Sarkar**, “ 3 to 8 Decoder Implementation using Single Electron Threshold Logic (SE-TL) for Low Power Computing”, in proceedings ofEmerging Trends and Advances in Electrical Engineering and Renewable Energy’(ETAEEERE-2016),SMIT, Sikkim, December- 2016.
16. Anup Dey and **Subir Kumar Sarkar**, “Fabrication and characterization of developed Pd/n-WO<sub>3</sub>/SiO<sub>2</sub>/P-Si based thin film gas sensor for detection of hydrogen (H<sub>2</sub>)” in proceedings of 5th International Conference on ‘Computing, Communication and Sensor Network’, CCSN-2016, Kolkata, India, December 24-25, 2016.
17. Subhprattim Nath, Swarnava Sarkar, Rabiraj Bandyopadhyay and **Subir Kumar Sarkar**, “A New Optimization Algorithm Based on Physarum BioNetwork for VLSI Global Routing”,in proceedings of 5th International Conference on ‘Computing, Communication and Sensor Network’,CCSN2016, Kolkata, India, December 24-25, 2016.

18. Chabungbam Akendra Singh, Chitralekha Ngangbam, Khomdram Jolson Singh and **Subir Kumar Sarkar** “A Review on Zinc Oxide Based UV Photodetector “, in proceedings of ‘Advances In Research And Innovations In Mechanical Engineering, Material Science, Industrial Engineering And Management’ (NCARIMMIEM-2016), NIT Imphal, December 12-13 2016.
19. Tapas Chakrabarti, Rudrarup Sengupta, Neha Sinha and **Subir Kumar Sarkar**, “Study and Simulation of Energy Efficient Realistic HIT Solar Cell Defect States”, in proceedings of IEEE-7th India International Conference on Power Electronics (IICPE), Thapar University, Punjab, India, Volume: IEEE Xplore, November 17-19, 2016.
20. Tapas Chakrabarti, Tyajodeep Chakrabarti, Udit Sharma and **Subir Kumar Sarkar**, “Extraction of Efficient Electrical Parameters of SolarCell using Firefly and Cuckoo Search Algorithm”, in proceedings of IEEE-7th India ‘International Conference on Power Electronics’ (IICPE), Thapar University, Punjab, India, Volume: IEEE Xplore, November 17-19, 2016.
21. Subhprattim Nath, Samriddha Banik, Arnab Seal and **Subir Kumar Sarkar**, “Optimizing MANET routing in AODV: An Hybridization approach of ACO and Firefly Algorithm”, in proceedings of 2nd IEEE ‘International Conference on Research in Computational Intelligence and Communication Networks’ (ICRCICN - 2016), organized by RCCIIT, September 2016.
22. Tiya Dey Malakar , Partha Bhattacharyya, **Subir Kumar Sarkar** “Surface Potential based Threshold Voltage Modeling of Work Function Engineered Gate Recessed Source / Drain IR SOI/ SON MOSFET for better nanoscale device performance”, in proceedings of ‘International Conference on Computational Science and Engineering’(ICCSE 2016), RCC Institute of Information Technology, Kolkata, India, October 4-6, 2016.
23. Arpita Ghosh and **Subir Kumar Sarkar**, “Comparative Study of Single Electron Threshold Logic Based and SET-CMOS Hybrid Based 1 Bit Comparator”, in the ‘International Conference on Computational Science and Engineering’ (ICCSE 2016), RCC Institute of Information Technology, Kolkata, India, October 4-6, 2016.
24. Anup dey, Bijoy Kantha, **Subir Kumar Sarkar**. “Study the Effects of Annealing Temperatures on Sol-Gel derived TiO<sub>2</sub> Sensing Element.”, in proceedings of International Conference on Computational Science and Engineering (ICCSE 2016), RCC Institute of Information Technology, Kolkata, India, October 4-6, 2016.
25. Subhprattim Nath, Avik Kumar Chakravarty, Sudipta Ghosh and **Subir Kumar Sarkar**, “FPGA Placement Optimization using Firefly Algorithm”,in proceedings of 1st ‘International Conference on VLSI Device, Circuit and System’ (VLSI DCS 2016), Meghnad Saha Institute of Technology, Kolkata, India, October 19-20,2016.
26. Subhprattim Nath, Arnab Seal, Arko Bhattacharya and **Subir Kumar Sarkar**, “A New Approach to Routing Optimization for Cluster-Based Wireless Sensor Networks using Swarm Intelligence”, in proceedings of 1st ‘International Conference on VLSI Device, Circuit and System’ (VLSI DCS 2016), Meghnad Saha Institute of Technology, Kolkata, India, October 19-20,2016.
27. Priyanka Saha, Dinesh Kumar Dash, Subhramita Basak and **Subir Kumar Sarkar**, “Asymmetric Junctionless Double Gate (JLDG) Silicon on Nothing (SON) MOSFET Modified with the Concept of Work Function Engineering: A Comparative Performance Study”, in proceedings of 1st ‘International Conference on VLSI Device, Circuit and System’ (VLSI DCS 2016), Meghnad Saha Institute of Technology, Kolkata, India, October 19-20, 2016.



28. Pritha Banerjee, Aman Mahajan and **Subir Kumar Sarkar**, “2-D Analytical Modeling of Dual-Material Double Gate Silicon-On-Nothing MOSFET”, in proceedings of 1st ‘International Conference on VLSI Device, Circuit and System’ (VLSI DCS 2016), MeghnadSaha Institute of Technology, Kolkata, India, October 19-20, 2016.
29. Tiya Dey Malakar, Partha Bhattacharyya, **Subir Kumar Sarkar**, “Analytical Surface Potential Based Modeling of Drain Current & Trans- conductance of Work Function Engineered gate Recessed S/D SOI/SON MOSFET”,in proceedings of 1st ‘International Conference on VLSI Device, Circuit and System’ (VLSI DCS 2016), Meghnad Saha Institute of Technology, Kolkata, India, October 19-20,2016.
30. Subhashis Roy, Bijoy Kantha and **Subir Kumar Sarkar**, “Study the Effect of Catalytic Metal Contacts on Ethanol Vapour Sensing Performance of WO<sub>3</sub>-Si Hetero-Structure Sensor”, in proceedings of International Conference on Computational Science and Engineering (ICCSE 2016), RCC Institute of Information Technology, Kolkata, India, October 4-6,2016.
31. Subhashis Roy, Joyashree Bag and **Subir Kumar Sarkar**, “CORDIC based Robot Navigation Processor deploying RFID Technology”, in proceedings of 1st International Conference on VLSI Device, Circuit and System (VLSI DCS 2016), Meghnad Saha Institute of Technology, Kolkata, India, October 19-20,2016.
32. Arpita Ghosh, Amit Jain, N. Basanta Singh and **Subir Kumar Sarkar**, “Single Electron Threshold Logic Based Feynman Gate Implementation”, in proceedings of second IEEE International Conference on Research in Computational Intelligence and Communication Networks (ICRCICN - 2016) organized by RCCIIT, September 2016.
33. Dayananda Rajkumar, Pranab Kishore Dutta, **Subir Kumar Sakar**, “Design and Implementation of 4-bit Ripple Carry Adder Using SETMOS Architecture”, in proceedings of ‘International Conference on Recent Trends in. Electronics, Information &Communication Technology’ (RTEICT-2016),Bangalore, India, May, 2016.
34. Khomdram Jolson Singh and **Subir Kumar Sarkar**,” Maximum Power Point Tracking Controller Using P and O Algorithm for Solar PV Array on FPGA”,in proceedings of IEEE International Conference on Communication and Signal Processing-2016 (IEEE-ICCSP’16), Melmaruvathur, Tamilnadu (India), Volume: IEEE Xplore, April 5-7, 2016.
35. Khomdram Jolson Singh and **Subir Kumar Sarkar**,” A wide band gap In<sub>0.5</sub>(Al<sub>0.7</sub>Ga<sub>0.3</sub>)<sub>0.5</sub>P Back Surface Field layer increases 6% more efficiency in DLAR Dual Junction InGaP Solar cell “ in proceedings of IEEE International Conference on Energy Efficient Technologies for Sustainability – 2016 (IEEE-ICEETS – 2016), Nagercoil, TN, India, Volume: IEEE Xplore, April 7-9, 2016

**Prof. Chayanika Bose**

36. Rakesh K. Patnaik, Ajit Kumar Panda and **Chayanika Bose**, “Influence of SiO<sub>2</sub>/SiN and SiO<sub>2</sub>/TiO<sub>2</sub> Double Layer Anti-Reflective Coating on Silicon Nanowire Solar Cell”, in proceedings of 3rd International Conference on Emerging Electronics (ICEE-2016), IIT Bombay, December 27-30, 2016.
37. Rakesh K. Patnaik, Devi Prasad Pattnaik and **Chayanika Bose**, “Performance of All Back Contact Nanowire Solar Cell with a Nano Crystalline Silicon Layer”, in proceedings of International Conference on Micro-Electronics, Electromagnetics and Telecommunications (ICMEET-2016), RIT, Visakhapatnam, January 06 - 07, 2017.

38. Susovan Mandal, **Chayanika Bose** and Manas Kumar Bose, “Realisation of one-dimensional photonic band gap within two-dimensional photonic crystal to achieve high Q spectral responses”, in proceedings of International Conference on Devices for Integrated Circuits (DevIC), 2017.
39. Shubhasree Biswas Sett and **Chayanika Bose**, “Influence of Hydrostatic Pressure on the Bound States of a Quantum Well in presence of Conduction Band Non-parabolicity”, in proceedings of 4th International Symposium on Semiconductor Materials and Devices, Jadavpur University, March 8-10, 2017.

**Dr. Sudipta Chattopadhyay**

40. Subhabrata Banerjee, **Sudipta Chattopadhyay**, “A Novel Simplified Augmented State Diagram of Three Dimensional Turbo Code”, in proceedings of IEEE International Conference on Power Electronics, Intelligent Control and Energy Systems (ICPEICES-2016), pp. 1 - 6, July 4– 6, 2016.
41. Subhabrata Banerjee, **Sudipta Chattopadhyay**, “Equalizer optimization using Flower Pollination Algorithm”, in proceedings of IEEE International Conference on Power Electronics, Intelligent Control and Energy Systems (ICPEICES-2016), pp. 1 - 5, July 4– 6, 2016.
42. Ananya Dey, Subhabrata Banerjee, **Sudipta Chattopadhyay**, “Design of improved Adaptive Equalizers using intelligent computational techniques: Extension to WiMAX system”, in proceedings of IEEE Uttar Pradesh Section International Conference on Electrical, Computer and Electronics Engineering (UPCON), pp. 305 - 310, December 9– 11, 2016.
43. Subhabrata Banerjee, **Sudipta Chattopadhyay**, AnanyaDey “Improved three Dimensional Turbo Code using Superposition Modulation techniques: Extension to WiMAX system”, in proceedings of IEEE Uttar Pradesh Section International Conference on Electrical, Computer and Electronics Engineering (UPCON), pp. 311 - 316, December 9 – 11, 2016.
44. Subhabrata Banerjee, **Sudipta Chattopadhyay**, “Optimization of three-dimensional turbo code using novel symbiotic organism search algorithm”, in proceedings of IEEE Annual India Conference (INDICON)), pp. 1 - 6, December 16 – 18, 2016.
45. Utpal Kumar Paul and **Sudipta Chattopadhyay**, “An Energy Saving Routing Scheme for WSN based Crop Field Monitoring System”, Presented at IEEE INDICON 2016 conference, IISC Bangalore, pp. 1 – 5, December 16 – 18, 2016.
46. P. K. Panda and **S. Chattopadhyay** “A Hybrid Security Algorithm for RSA Cryptosystem”, IEEE International Conference on Advanced Computing and Communication Systems, Coimbatore, INDIA. (Accepted), Jan. 06 – 07, 2017.

**Dr. Sayan Chatterjee**

47. Tarun Kumar Das, **Sayan Chatterjee**, “Spurious Harmonic Suppression in a Folded Parallel-Coupled Microstrip Bandpass Filter by using Triangular Corrugations, IEEE Devices for Integrated Circuit (DevIC- 2017), Kalyani Government Engineering College ( Best paper award), March 23-24, 2017.
48. Pampa Debnath, **Sayan Chatterjee**, “Substrate Integrated Nonradiative Dielectric Guide”, in proceedings of IEEE Devices for Integrated Circuit (DevIC- 2017), Kalyani Government Engineering College, March 23- 24, 2017.



49. Baisakhi Bandyopadhyay, Soumyo Chatterjee, Arijit Majumder, **Sayan Chatterjee**, “Adaptive Single Null Placement in Broadside Linear Array using Edge Element Control”, in proceedings of 3rd Regional conference on Radio Conference, Tirupati, pp. no. 1-4, March 2017.
50. Tarun Kumar Das, **Sayan Chatterjee**, “Performance of periodic grooves on harmonic rejection in C band folded edge coupled microstrip band pass filters”, in proceedings of International Conference on Computational Science and Engineering (ICCSE2016), Computational Science and Engineering, Taylor and Francis, ISBN: 978-1-138-02983-5, 2016.
51. Tarun Kumar Das, **Sayan Chatterjee** “2nd Harmonic suppression in parallel-coupled microstrip bandpass filter by using Koch fractals”, in proceedings of IEEE annual conference INDICON 16, DOI: 10.1109/INDICON.2016.7838919, December16 -18, 2016.
52. Debanjali Sadhu, Diptashree Das, Soumyo Chatterjee, **Sayan Chatterjee**, “ Thinning of linear antenna array with Chebyshev distribution using Binary Particle Swarm Optimization” , in proceedings of international symposium on antennas and propagation (APSYM-2016), Cusat, Cochin, India, December 15-17, 2016.
53. Abhijit Pal, Indrasis Roy, Jayati Dev, Arijit Dey, Soumyo Chatterjee and **Sayan Chatterjee**, “Closed-form Design Expression for First Null Beam Width with Taylor Distribution”, in proceedings of IEEE 2nd International Conference on Contemporary Computing and Informatics, Delhi, pp. no. 878-881, December 2016. DOI- 978-1-5090-5256-1/16.
54. **Sayan Chatterjee**, Jayanta Das, Arijit Majumder, “ Circularly Polarized Offset Center Cross Slotted Array Antenna at Ka Band”, in proceedings of International Conference on Numerical Electromagnetic and Multiphysics Modeling and Optimization for RF, Microwave and Terahertz Application ( NEMO -2016 ) , Beijing, China, July 27 -29, 2016.
55. Tarun Das, **Sayan Chatterjee**, “Design of Compact Symmetrical C –Band Microstrip Bandpass Filter with Periodic Saw-tooth Grooves”, in proceedings of international conference IAET-2016, Inroads journal Special issue, Vol.5, No. 1, pp. no. 254-259, 2016, Jaipur.

[5] **Current Research Projects: (Title of the Project–Investigator–Funding Agency–Status)**

Noise and Harmonic Analysis of Advanced CMOS Devices for RF Applications–Prof. C.K. Sarkar –DST–Ongoing

Optimization of Advanced Double Gate MOSFETs and their Circuits for RF Performance in Nano Regime–Prof. C.K. Sarkar–AICTE–Ongoing

Devices and Systems–Prof. C.K. Sarkar–UGC UPE -II–Ongoing

DST - PURSE II–Prof. Subir Kumar Sarkar, Co-ordinator & Prof. P. Venkateswaran, Joint Co-ordinator –DST–Ongoing

Low Power ASIC-VLSI Implementation of Secure and Authentication Algorithms for Defense Application –Prof. Subir Kumar Sarkar–UGC UPE –II–Ongoing

Analytical Modeling and Simulation based Verification for Low Dimensional Devices Suitable for Low Power Application –Prof. Subir Kumar Sarkar–UGC UPE -II–Ongoing

Analytical Modeling and Simulations of SOI/SON MOSFETs: A Comparative Analysis to Get Better Device for Next Generation Integrated Circuits–Prof. Subir Kumar Sarkar–UGC MRP-MAJOR-ELEC-2013-19144–Ongoing

## **Annual Report 2016-17**

Antenna System Design for Proximity Sensor–Prof. Bhaskar Gupta–ARDE, DRDO–Ongoing

Advanced Materials and Systems (Devices and Systems Subgroup)–Prof. Bhaskar Gupta jointly with Prof. Subir Kumar Sarkar UGC UPE -II–Ongoing

Radio Communication System Design, Fabrication and Measurement Technique–Prof. Bhaskar Gupta–UGC (SAP)–Completed

Modelling Optoelectronic and Transport Characteristics of Semiconductor Nanostructures - Prof. Chayanika Bose–UGC UPE-II –Ongoing

‘Design of Frequency Synthesizer, Mixer and LNA at 2.45 GHz for Seismic Application’ under Special Manpower Development Program (SMDP-III, C2SD)–Dr. Sayan Chatterjee–Ministry of Communications and Information Technology, Govt. of India–Ongoing

Design of Textile based Substrate Integrated Waveguide Components–Dr. Sayan Chatterjee–TEQIP –II, Jadavpur University–Completed

### **[6] Refresher Courses Organized/ Attended:**

#### **Organized:**

1. **Prof. Subir Kumar Sarkar** organized a UGC Refresher Course on “VLSI Design and Nanotechnology: Issues and Challenges”, held in the department of ETCE, Jadavpur University, during November 28- December 17, 2016.

#### **Attended :**

2. **Dr. Sayan Chatterjee** participated in 63rd Orientation Programme at UGC \_HRDC, Jadavpur University from November 15 – December 12, 2017.

### **[7] Workshop Organized:**

#### **Prof. Bhaskar Gupta**

- a) Organized three-day workshop On Design and Analysis of Millimeter Wave Circuits - Sponsored by TEQIP Phase – II, in the department of ETCE, Jadavpur University, September 8-10, 2016.
- b) Organized one-day workshop on Curriculum Revision - sponsored by TEQIP Phase-II, in the department of ETCE, Jadavpur University, March 21, 2017.
- c) Organized one-day seminar on Frontiers of RF Technology – sponsored by TEQIP Phase II in technical collaboration with DRS, SAP (UGC), in the department of ETCE, Jadavpur University, March 31, 2017.

#### **Prof. Subir Kumar Sarkar**

- a) Organized a one day workshop on “Emerging Areas of Electronics and Communication Engineering” funded by TEQIP-II, at the Dept.of ETCE, Jadavpur University, Kolkata on 29th July,2016.

#### **Dr. Sudipta Chattopadhyay**

- a) Organized two-day workshop on “Recent Trends in Signal Processing (RTSP 2016)”, sponsored by TEQIP Phase II, in the Department of ETCE, Jadavpur University, on October 18-19, 2016.
- b) Organized two-day Diamond Jubilee Year Hands-on Training Program on “Ultra Low Power Design using TI MSP430G2 Launch Pad” in Technical Collaboration with EdGate Technologies Pvt. Ltd., Bangalore, sponsored by TEQIP Phase II, in the Department of ETCE, Jadavpur University, on October 21-22, 2016.

- c) Organized IEEE 5G summit and 28th GISFI meeting as Academic Coordinator, at Hotel Senses, Kolkata, during 17-18 March 17-18, 2016.

**Dr. Sayan Chatterjee**

- a) Organized one-day Faculty development program on “Image Processing Using Pingalab (IPP, 2016)” in the Department of ETCE, Jadavpur University on September 21, 2016.
- b) Organized one-day workshop on “Remote sensing applications and science (RSAS-2016)” in Indismart Hotel, Kolkata in association with IEEE GRSS chapter on December 17, 2016.
- c) Organized two day Diamond Jubilee Year Hands-on Training Program on “Internet of Things (IoT) using MSP430F5529 ULP MCU” in Technical Collaboration with Ed-Gate Technologies Pvt. Ltd., Bangalore, sponsored by TEQIP Phase II, in the Department of ETCE, Jadavpur University, on February 17-18, 2017.

**Dr. Chandrima Mondal**

- a) Organized two-day Diamond Jubilee Year Hands-on Training Program on “Internet of Things (IoT) using MSP430F5529 ULP MCU” in Technical Collaboration with Ed-Gate Technologies Pvt. Ltd., Bangalore, sponsored by TEQIP Phase II, in the Department of ETCE, Jadavpur University, on February 17-18, 2017.

**[8] Major Achievements:**

**[A] Post-doctoral research:**

**Prof. Chandan Kumar Sarkar**

1. Dr. Jayita Kanungo (Senior Research Associate, Council of Scientific and Industrial Research, Govt. of India) with Project Title “Fabrication and characterization of nano-structured metal oxide thin film sensor for the detection of blood sugar from breathe acetone” has joined as Post Doctoral Fellow under guidance of Prof. Chandan Kumar Sarkar.

**Prof. Subir Kumar Sarkar**

1. Dr. Senthil Kumar (Department of EC, Dr. MGR University, Chennai) with Project title “Renovated and innovated MOSFET structures” has joined as Post Doctoral Fellow under guidance of Prof. Subir Kumar Sarkar.

**[B] Achievements of the Faculties:**

**Prof. Chandan Kumar Sarkar**

1. IEEE EDS Distinguished Lecturer since 2002.
2. Founder & Chair of IEEE Solid State Circuit Society Kolkata Section.
3. Four PhD degrees were awarded with the following details:
4. Atanu Kundu with thesis title “Study of Subthreshold Analog and RF Performance Trends of Multi-Gate MOSFETs in Sub-nanometer Regime”.
5. Arka Dutta with thesis title “Reliability Analysis of Advanced Nano MOS Devices for Analog and RF Applications”.
6. D. Godwinraj with thesis title “Advanced Heterostructure Devices for Power Applications”.
- Chitta Dutta with thesis title “On the modeling of Advanced Nanoscale MOS Devices”.

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**Prof. Subir Kumar Sarkar**

1. Has been selected as IEEE Electron Device Society Distinguished Lecturer (Region 10).
2. Was honored as Special Guest in IEEE ED Mini Colloquium (MQ) cum National Seminar, organized by Department of Electronics and Communication Engineering, NIST, Behrampur, Odisha March 6, 2017.
3. Acted as a Member of the Technical Program Committee in 2017 in First International Conference on Computational Intelligence, Communications, and Business Analytics (CICBA-2017), Calcutta Business School on March 24-25, 2017
4. Acted as a Member of the International Advisory Board in 2nd international conference on Electrical, Computer and Telecommunication Engineering (ICECTE) 2016 organized by Faculty of Electrical and Computer Engineering, Rajshahi University of Engineering & Technology (RUET) during 8<sup>th</sup> to December 10, 2016.
5. Acted as Member of the Technical Program Committee, in the International Conference on Computational Science and Engineering (ICCSE-2016), on October 4, 2016 in RCC Institute of Information Technology, Kolkata, India.
6. Acted as Member of the Technical Advisory Committee in International Conference on Advance Computing (ICAC) 2016 organized by Maulana Abul Kalam University of Technology, West Bengal (formerly known as West Bengal University of Technology), India from September 23- 25, 2016 sponsored by TEQIP-II.
7. Acted as one of the expert members in various National Level Accreditation Board.
8. Four PhD degrees were awarded with the following details:
  - Dr. Pranab Kishore Dutta with thesis title “Performance Improvement for Future Nano-devices and Explore some of the applications”.
  - Dr. (Mrs) Joyashree Bag with thesis title “Adaptive VLSI Design for Wireless Communication Systems”.
  - Dr. Amit Jain with thesis title “Single Electron Transistor and its Hybridization with MOSFET for increasing density of integration and reducing Power consumption”.
  - Dr. Abdur Rahaman Sardar with thesis title “Some studies on routing algorithm and security in communication network including optical network and sensor network”.

**Prof. Bhaskar Gupta**

1. Three PhD degrees were awarded with the following details:
  - Amrita Chakraborty with thesis title “Development of RF MEMS Based Compact Phase Shifters”.
  - Sriparna Mitra with thesis title “Modeling and Optimization of Dielectric Resonator Antennas”.
  - Sanghamitra (De) Dasgupta with thesis title “Optimal Design of Planar Antennas and Arrays for Power Harvesting”.

**Dr. Sudipta Chattopadhyay**

1. Ananya Dey, Subhabrata Banerjee, **Sudipta Chattopadhyay**, “Design of improved Adaptive Equalizers using intelligent computational techniques: Extension to WiMAX system”, secured 2nd position in the IEEE Uttar Pradesh Section International Conference on Electrical, Computer and Electronics Engineering (UPCON), IIT (BHU), Varanasi, India December 9-11, 2016.
2. Nominated as Chairperson, IEEE Women in Engineering (WIE), Kolkata Section.
3. One PhD degree was awarded with the following details:

- Abhijit Chandra with thesis title “Design of Hardware Efficient Multiplier-less Low-pass FIR Filter using Evolutionary Algorithms”.

**Dr. Sayan Chatterjee**

1. Nominated as Secretary IEEE Kolkata section.

**Dr. Chandrima Mondal**

1. Awarded Ph.D. (Engineering) degree on August, 2016 on “Studies on Nanoscale Ge Channel MOSFETs for Analog and Logic Applications” from Calcutta University.

**[D] Training Programmes Organized :**

Training sessions on ‘Microelectronics Technology and VLSI Design’ are organized for mainly Bachelor Degree students from various Institutes , where courses (both theory and laboratory sessions) on ‘VLSI Design using EDA Tools’ , Design Verification Using VHDL and FPGA Implementation of Digital Systems’ and ‘Fabrication and Characterization of Semiconductor Devices’ are carried out .

**Details of the Training Programmes Organized: (Sl. No–Duration–Period–No. of Participants – Institute/ Organization)**

1. 4 Weeks–04-07-16 to 30-07-2016–71–B.Tech Students from different Private Engineering College
2. 4 Weeks–01-09-2016 to 07-10-2016–53–B.Tech Students from MCKV Institute of Engineering, Liluah, Howrah.
3. 12 Weeks–02-01-2017 to 29-03-2017–17–M. Tech Students from Maulana Abul Kalam Azad University of Technology

**[E] MoU with the Centre (Made and on the process):**

1. IC Centre will sign a MoU with With MCKV Institute of Engineering for vocational training program of B. Tech students.
2. Guru Nanak Institute of Technology and IC Centre , Jadavpur University have submitted a MoU proposal for vocational training program of B. Tech students.

**ICPR CENTRE FOR BUDDHIST STUDIES**

**[Department of Philosophy]**

Int. : 2457-2358

Co-ordinator: Prof. Madhumita Chattopadhyay

One of the major aims of the ICPR Center of Buddhist Studies since inception was to spread the main thesis of Buddhist Philosophy to persons interested in Buddhism, but could not have any formal training to pursue studies in Buddhism. For such people the Center has organized Certificate Course on Buddhist Studies in two semesters twice a year, one (the basic level) from July to December and the advance level from January to June. Since April 2015 to December 2016, the Center has conducted the course successfully in three semesters - one from June to December 2015, second from January to June 2016 and from July to December 2016.



Since Pali is one of the major languages in which the early Buddhist texts were written, anyone willing to pursue studies in Buddhist Philosophy need to have training in Pali Language. Unfortunately, at Jadavpur University there had so long been no scope for teaching Pali Language as such. Hence, it had been a long demand of the students of Buddhist Studies to have a course on Pâli Language. In view of such a demand the ICPR Center for Buddhist Studies in collaboration with the School of Languages, Jadavpur University has started a one year Certificate on Pâli Language from July 2016.

The ICPR Center for Buddhist Studies has organized a 10 day Workshop on the “Development of Buddhist Logic through the Ages” for College & University Teachers from 20<sup>th</sup> June 2016 to 30<sup>th</sup> June 2016. In this Workshop it was discussed how the basic concepts of logic were found in the earliest Buddhist texts the *Tripitakas*. The course aimed to show the development of Buddhist logic starting from the early Pali texts to the later Sanskrit texts. The center had organized successfully three Seminars during this phase of which one was international in character. The first National Seminar organized in this phase was on the “Contribution of Contemporary Thinkers in the Spread of Buddhism”. This Seminar was jointly organized by such Institutes as ICSSR, DRONAH, MAKAIAS, Kolkata. The speakers in this Seminar included stalwarts like Prof: J. Garfield, Prof: K.T.S.Sarao, Prof: Anand Singh, Prof: Bimalendra Kumar, Prof: R.K.Rana, Prof: Aiswarya Biswas.

Along with the veteran scholars of Buddhist Studies , the ICPR Center tries to encourage the young scholars to pursue their researches on Buddhism. Accordingly the Center has tried to arrange each year Young Scholar Meet on any particular theme of Buddhist Studies. This year the theme chosen were the “Concept of Body”. In the end of September 2016, a Young Scholar Meet at the national level, was organized by the Center in which scholars from University of Calcutta, Jadavpur University, North Bengal University, Kalyani University, Nalanda University and BHU participated as speaker as well as hearer.

A Three day International Seminar was organized by the Center from 27<sup>th</sup> to 29<sup>th</sup> December 2016, to commemorate the 25<sup>th</sup> death anniversary of Prof: Bimalkrishna Motilal, who was a great scholar of both Buddhism and Nyâya. This seminar was completely funded by Mrs:Karabi Motilal and her family. This seminar was inaugurated by Prof: S.R.Bhatt, the Chairperson of the ICPR New Delhi, the keynote address was delivered by Prof. S.Katsura of Ryukoku University Japan. The other distinguished speakers were Prof. Robert Goldman, Prof. Sally Sutherland Goldman, both from University of California, Berkeley, Prof: S. Varakhedi of Karnataka Sanskrit University, Prof. Probal Kumar Sen of Calcutta University, Prof: Nirmalya Chakraborty of Rabindrabharati University, Prof. Parul Dave Mukherjee of Delhi University were speakers. Though Prof. Janardan Ganeri of New York University and Prof. Arindam Chakraborty of Hawaii University were not physically present, there was arrangement of video conferencing, so that they could participate in the seminar. Following the convention of the Centre, in this seminar also there was a session for young scholars where Dr: W.Pannaloka of Kelaniya University Srilanka, Adam O'brien of Hawaii University & Dr: Mainak Pal of Presidency University presented their papers. In this seminar also there was an arrangement of Cultural Program, where a Sanskrit drama ‘*Ratharajju*’ composed by Prof: Bimalkrishna Motilal was staged. This seminar was attended by more or less 250 participants daily.

To give the students a glimpse of ancient Buddhist art and monasteries and also how actually the excavations are executed to find out the ancient articles, the Center has organized two educational



tours to Mogalmari, a place in West Midnapur of West Bengal in January 2015 and January 2016. The students were shown the excavation work by the excavation team itself who were working in the field. For conducting this educational tour a small amount of money was taken from the grant sent by the ICPR.

After completing its academic journey for the last 4 years successfully the Centre for Buddhist Studies is looking forward to start with new plans and proposal for the coming years. The Centre has a plan of working on a project “Contributions of Contemporary Thinkers in the Revival of Buddhist Philosophy”.

## **KNOWLEDGE BASED SYSTEMS**

[Department of Electrical Engg.]

Int. : 2457-2825

Co-ordinator: Prof. Smita Sadhu

E-mail : kbs.centre@jadavpuruniversity.in

### **Area of Research Activities:**

Design and research in the areas of estimation and filtering techniques, fault detection and identification of nonlinear hybrid systems, real time computer control systems and safety critical and high consequence software, design review and audit of aero engine control system, aircraft stabilization, railway signaling and interlocking systems.

### **Articles Published:**

#### **International Journals**

1. Sudeshna Dasgupta; Smita Sadhu; Tapan Kumar Ghoshal, Designing disturbance observer for non-linear systems – a Hirschorn inverse approach, *IET Science, Measurement & Technology*, 2017, Volume: 11, Issue: 2, Pages: 164 - 170, DOI: 10.1049/iet-smt.2016.0105+
2. Sayanti Chatterjee, Smita Sadhu, and T.K. Ghoshal. “Improved Estimation and Fault Detection Scheme for a Class of Nonlinear Hybrid Systems using Time Delayed Adaptive Central Difference State Estimator.” *IET Signal Processing*, 2017. DOI: 10.1049/iet-spr.2016.0380
3. Manasi Das, Aritro Dey, Smita Sadhu, and Tapan Kumar Ghoshal, Adaptive Central Difference Filter for Non-Linear State Estimation, *IET Science, Measurement & Technology*, vol. 9, issue 6, pp. 728 – 733, 2015, DOI: 10.1049/iet-smt.2014.0299.
4. Manasi Das, Smita Sadhu, and T. K. Ghoshal, Fault Detection and Isolation of Satellite Inertial Instrumentation using Nonlinear Adaptive Filters, *AIAA Journal of Aerospace Information Systems*, vol. 12, no. 2, pp. 284-289, 2015, DOI: 10.2514/1.1010180.
5. Aritro Dey, Smita Sadhu, and Tapan Kumar Ghoshal, Adaptive Gauss–Hermite Filter for Non-Linear Systems with Unknown Measurement Noise Covariance, *IET Science, Measurement & Technology*, vol. 9, issue 8, pp. 1007 - 1015, 2015, DOI: 10.1049/iet-smt.2015.0020

6. Aritro Dey, Manasi Das, Smita Sadhu, and Tapan Kumar Ghoshal, Adaptive Divided Difference Filter for Parameter and State Estimation of Non-Linear Systems, *IET Signal Processing*, vol. 9, no. 4, pp. 369-376, 2015, DOI: 10.1049/iet-spr.2013.0395.
7. Sayanti Chatterjee, Smita Sadhu, and T. K. Ghoshal, Fault Detection and Identification of Non-Linear Hybrid System using Self-Switched Sigma Point Filter Bank, *IET Control Theory & Applications*, vol. 9, no. 7, pp. 1093-1102, 2015, DOI: 10.1049/iet-cta.2014.0716.

**Book Chapter:**

8. Aritro Dey, Smita Sadhu, Tapan Kumar Ghoshal, "Adaptive Nonlinear Information Filters for Multiple Sensor Fusion," Filipe, Joaquim, Kurosh Madani, Oleg Gusikhin, and Jurek Sasiadek, eds. Revised Selected Papers of 12th International Conference on Informatics in Control, Automation and Robotics, *Lecture Notes in Electrical Engineering published by Springer Verlag*, 2016, vol. 383, pp. 371-390, DOI 10.1007/978-3-319-31898-1\_21.

**Conference Proceedings:**

9. Nilanjan Patra, Smita Sadhu, T. K. Ghoshal, "Pragmatics For Estimator based Aircraft Tracking," *IEEE First International Conference on Power Electronics, Intelligent Control and Energy Systems*, (ICPEICES-2016), Delhi Technological University, Delhi, 4-6 July 2016.
10. Nilanjan Patra, Smita Sadhu, T. K. Ghoshal, "Adaptive State Estimation for Ballistic Object Tracking with Nonlinear Model and State Dependent Process Noise," *IEEE First International Conference on Power Electronics, Intelligent Control and Energy Systems*, (ICPEICES-2016), Delhi Technological University, Delhi, 4-6 July 2016.
11. Sabyasachi Mondal, Smita Sadhu, and Snehesh Talukdar, "Platform Motion Disturbances Attenuation in a Missile Seeker Subsystem using Disturbance Observer Techniques," *10th IEEE International Conference on Intelligent Systems and Control (ISCO-2016)*, pp. 1-6, 2016.
12. Rudrashis Majumder, and Smita Sadhu, "Robust Extended Kalman Filter for Ballistic Object Tracking during Re-entry." *IEEE Annual India Conference (INDICON-2016)*, pp. 1-6, 2016
13. Sudeshna Dasgupta, Smita Sadhu, and T. K. Ghoshal, Disturbance Observer Structure Based Internal Model Control for Time Delay Systems, *Proceedings of 49th Annual IEEE Conference on Information Sciences and Systems (CISS)*, Baltimore, Maryland, USA, pp. 1-5, 18 - 20 March, 2015, DOI: 10.1109/CISS.2015.7086880.
14. Dey, Aritro, Smita Sadhu, and Tapan Kumar Ghoshal, Multiple sensor fusion using adaptive divided difference information filter, *Proc. of 12th IEEE International Conference on Informatics in Control, Automation and Robotics (ICINCO)*, Colmar, France, vol. 1, pp. 398-406., 2015.
15. Dey Aritro, Das Manasi, Sadhu Smita, Ghoshal T. K., Adaptive Unscented Information Filter for Multiple Sensor Fusion, *Proc. of Michael Faraday IET India Summit*, Kolkata, 2015, pp. 541 - 545, DOI: 10.1049/cp.2015.1690.
16. Aritro Dey; Smita Sadhu; T. K. Ghoshal, Adaptive divided difference filter for nonlinear systems with non-additive noise, *Proc. of Third International Conference on Computer, Communication, Control and Information Technology (C3IT)*, 2015, DOI: 10.1109/C3IT.2015.7060208.
17. Das Manasi, Dey Aritro, Sadhu Smita, Ghoshal T. K., Adaptive Unscented Kalman Filter at the Presence of Non-additive Measurement Noise, *Proc. of 12th IEEE International Conference on*

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*Informatics in Control, Automation and Robotics (ICINCO)*, Colmar, France, vol. 1, pp. 614 – 620, 2015.

18. Sayanti Chatterjee; Smita Sadhu; T. K. Ghoshal, Self switched R-adaptive extended Kalman Filter based state estimation and mode determination for nonlinear hybrid systems, *Proc. of Third International Conference on Computer, Communication, Control and Information Technology (C3IT)*, 2015, DOI: 10.1109/C3IT.2015.7060209.
19. Nilanjan Patra, Smita Sadhu, Adaptive Extended Kalman Filter for the State Estimation of Anti-lock Braking System, *Proc. of Annual IEEE India Conference (INDICON) on Electronics, Energy, Environment, Communication, Computer, Control, (E3-C3)*, 17-20 December 2015, Jamia Millia Islamia, New Delhi, INDIA, 2015, DOI: 10.1109/INDICON.2015.7443199.
20. Moumita Mukherjee, Smita Sadhu, Track Following Control of Hard Disc Drive: A Survey, *Proceedings of Michael Faraday IET International Summit*, pp. 99 - 104, DOI: 10.1049/cp.2015.1614.

#### **Interaction with Other Institutions/Organizations:**

1. Prof Smita Sadhu acted as External Examiner for evaluation of M.Tech. thesis at the Department of Electrical Engineering, IIT, Kharagpur in 2017.
2. Prof Smita Sadhu acted as External Examiner for evaluation of M.Tech. thesis at the Department of Electrical Engineering, NIT, Silchar in 2017.
3. Prof Smita Sadhu acted as External Examiner for evaluation of M.E. thesis at the Department of Electrical Engineering, IEST, Howrah in April, 2017.
4. Prof Smita Sadhu is an External expert for the Ph.D. Committee of two candidates enrolled at the Department of Electrical Engineering, IEST, Howrah.
5. Prof Smita Sadhu delivered a talk on the Faculty Development Program on “Future Aspects of Computer Science and its applications” (FACSA 2016) organized by the Dept. of Comp. Sc. & Engineering, RCCIIT, Kolkata, held during 1st Feb to 5th Feb 2016.
6. Prof Smita Sadhu chaired a Technical Session for IEEE First International Conference on Control, Measurement and Instrumentation (CMI), held during January 8-10, 2016.
7. Prof T.K. Ghoshal chaired a Technical Session for IEEE First International Conference on Control, Measurement and Instrumentation (CMI), held during January 8-10, 2016.
8. Prof. T.K. Ghoshal has been a Member of Launch Authorization Board of Nirvaya Missile-DRDO.
9. Prof. T.K. Ghoshal was a Member of the Programme Advisory Committee, Center for Railway Research (CRR), IIT Kharagpur.
10. Prof. T.K. Ghoshal was a Member of the Team for IIT KGP Consultancy Services on Setting up of a “Centre for Safety Critical Software for Signalling (CSCS) Applications” in Indian Railway Institute on Signalling Engineering and Telecommunication (IRISET), Ministry of Railways, Secunderabad, continuing from 2015.
11. Prof. T.K. Ghoshal was an Invited Speaker on the occasion of releasing a book on Dr. A.P.J. Abdul Kalam, at Netaji Subhash Engineering College, Kolkata.

### **Annual Report 2016-17**

12. Prof. T.K. Ghoshal is a Member of Advisory Committee for the utilization of alumni donations of IIT Kharagpur.
13. Prof. T.K. Ghoshal was Member, Faculty selection committee meeting at IIT Kharagpur.
14. Prof. T.K. Ghoshal was Member of selection committee for faculty recruitment at NIT Silchar.
15. Prof. T.K. Ghoshal continues as Chairman of the project review meeting on Virtual Range Project at Integrated Test Range (ITR), Balasore.
16. Prof. T.K. Ghoshal is a PhD committee member of WBUT for the Departments of Electrical Engineering, Applied Electronics and Instrumentation Engineering.
17. Prof Smita Sadhu chaired a Technical Session for Michael Faraday IET International Summit-2015 held on 12-13 September 2015.
18. Prof.T.K. Ghoshal continues as a member of review committee of DRDL and RCI Hyderabad.
19. Prof.T.K. Ghoshal acted as an invited faculty for a 3 week training program for engineers of Bharat Dynamic Ltd., Hyderabad.
20. Prof.T.K. Ghoshal continued to chair system engineering meetings at Bharat Dynamics Limited (a defense public sector undertaking) leading to successful flight test of 3 km range 2<sup>nd</sup> generation anti tank missile
21. Prof. Smita Sadhu acted as reviewer for IEEE Transactions on Aerospace and Electronic Systems, IEEE Transactions on Control Systems Technology, Elsevier Aerospace Science and Technology and many IEEE conferences.
22. Prof.T.K. Ghoshal continues as a member of the governing body of the MCKV Institute of Engineering, Liluah.
23. Prof. T.K. Ghoshal delivered a lecture as an Invited Speaker at Supreme Knowledge Foundation, Mankundu.

#### **Major Achievements:**

1. Two doctoral students have been awarded PhD degree in 2017. The candidates have utilized the facilities of CKBS.
2. Two doctoral thesis have been submitted in 2017. The candidates have utilized the facilities of CKBS.
3. Three Post Graduate theses have been awarded under the supervision of the Coordinator. The candidates have utilized the facilities of CKBS.

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## MARXIAN STUDIES

[Affiliated to Faculty of Arts]

Coordinator: Abdul Kafi, Department of Bengali

Joint Coordinator: Suchetana Chattopadhyay, Department of History

### Lecture Organised:

Seminar lecture by Professor Vijay Prashad on 'Where do terrorists come from?'  
Held on 8 July 2016 at Anita Banerjee Memorial Hall, UG Arts Building, JU. The session was organised by Abdul Kafi and Suchetana Chattopadhyay (coordinators) and chaired by Dr. Samantak Das, Department of Comparative Literature, JU.

## MATHEMATICAL BIOLOGY AND ECOLOGY

[Department of Mathematics]

Tel.: 2414-6716

Int. :2457-2743

Coordinator – Prof. Nandadulal Bairagi

Joint Coordinator – Prof. Dipak Kumar Kesh

E-mail: nbairagi@math.jdvu.ac.in

: mbe.centre@jadavpuruniversity.in

1. **A. Courses Offered:** Centre for Mathematical Biology and Ecology, Department of Mathematics, offers Mathematical Biology as a special paper in the Final M.Sc.
2. **A. Areas of Research Activities** (Broad Areas):
  - (a) Mathematical Ecology
  - (b) Epidemiology
  - (c) Bioeconomic modeling of exploitation of natural resources
  - (d) Marine ecosystems
  - (e) Pest management
  - (f) Physiology
  - (g) Systems Biology
  - (h) Environment & sustainable development.
2. **B. Ongoing Research Projects:** (*Sl. No-Title of the project-Funding Agency-Duration-Name. of faculty members involved(PI and Co-PI)-No. of students working at Doctoral Level*)
  1. Dynamics of predator-prey-parasite models with different biological aspects-DST-2013-2017-Prof. Nandadulal Bairagi (PI)-One
  2. Emergent dynamics in ecological networks: Spreading of disease and its control-*Study*-DST 2017-2020-Prof. Nandadulal Bairagi (PI)-One

3. Mathematical application of enzymatic preparation for different drug induced commodities towards societal benefit-DBT-2015-2018-Prof. P.K.Roy (PI)-One

### **3. A. Invited Lectures Delivered/Session Chaired:**

#### **Prof. Nandadulal Bairagi**

- 1) Invited talk delivered in the Seminar on Biomathematics organized by Institute of Mathematics, Czech Academy of Sciences, Prague, Czech Republic on 14<sup>th</sup> March 2017.
- 2) Invited talk delivered in the Seminar on Differential Equations organized by Institute of Mathematics, Czech Academy of Sciences, Brno, Czech Republic on 8<sup>th</sup> March 2017.
- 3) Special Lecture given on Mathematical Modelling of Hormone Secretion at Beijing Technology and Business University, Beijing, China 12<sup>th</sup> November 2016.
- 4) Invited talk delivered in the International Conference "BIOMAT 2016 held in Nankai University, China during 30<sup>th</sup> October- 4<sup>th</sup> November 2016.
- 5) Invited talk delivered in the International Conference "India Biodiversity Meet 2016 held in ISI, Kolkata during 23<sup>rd</sup> October-25<sup>th</sup> October 2016.
- 6) Invited talk delivered in the International Conference on Mathematical Modeling and Simulation organized by Banaras Hindu University, Varanasi during 29-31 August, 2016.
- 7) Invited talk delivered on Dynamical Systems: Theory & Applications (DSTA 2017)" organized by Indian Institute of Technology (Indian School of Mines), Dhanbad during June 16-30, 2016.

#### **Prof. Priti Kumar Roy**

##### **National**

1. Delivered an invited talk "**ISIAM Silver Jubilee Conference**" in Sharda University, Greater Noida, 29-31 Jan, 2016, India.
2. Delivered an invited talk and chaired a session "**2nd International Conference on Mathematical Techniques in Engineering Applications (ICMTEA2016)**", Dehradun. 29-30 April, 2016, India
3. Delivered an invited talk at one day Seminar on **Environmental Ethics** on 2nd June, 2016, in Narula Institute of Technology, Kolkata, India.
4. Delivered an invited talk at one day Seminar on **Faculty development program on Modern Trends in Teaching & Research Methodology** on 18-22nd July, 2016, in Narula Institute of Technology, Kolkata, India.
5. Chaired a session and Delivered an invited talk on "**International Conference on Mathematical Modeling and Simulation**", held at Banaras Hindu University, Varanasi from 29-31 August, 2016.
6. Delivered an invited talk at **The National Seminar on Application of Mathematics in Technology and Management (NSAMTM 2016)** held on 8-9th September, 2016, in Narula Institute of Technology, Kolkata, India.
7. Chaired a session and Delivered a plenary talk at **Second Euro International Conference on HIV & AIDS (WCHA - 2017)** held on 12-14 May 2017, Kottayam, Kerala, India.

##### **International**

1. Delivered an invited talk "Escalating role of Mathematics for Biodiesel Production from Management Perspective" at "Beijing Institute of Technology", 7th June, **2016**, in Beijing, **P. R.China**.



2. Delivered invited research talks with teaching classes in mathematics for Under Graduate International Students at “Beijing Technology and Business University”, from 6-22nd June, **2016**, in Beijing, **P.R.China**.
3. Delivered an invited talk “Bridging therapeutic treatment with Keratinocyte Anomalies: Mathematical insights on Psoriasis” at “Anyang Institute of Technology”, 17th June, **2016**, in Anyang, **P.R.China**.
4. Delivered an invited talk “Role of Mathematics for Bio-diesel Production (Jatropha Oil) and Generating Awareness” on 17th October, **2016** in Department of Chemical Engineering, University of Chemistry and Technology, Prague, **Czech Republic**.
5. Delivered an invited talk “Biodiesel: From Ecology (Jatropha curcas) to Production Through Mathematical Aspect” on 19th October, **2016** in Faculty of Mathematics, Informatics and Mechanics, University of Warsaw, **Poland**.
6. Delivered an invited talk “Therapeutic Approach with Keratinocyte Anomalies: Mathematical insights on Psoriasis” on 2nd November, **2016** in Faculty of Mathematics, Informatics and Mechanics, University of Warsaw, **Poland**.

### **C. Awards/ Achievements**

1. Prof. Nandadulal Bairagi received Indian National Science Academy – Czech Academy of Sciences Bilateral Exchange Program Award 2017.
2. Prof. Priti Kumar Roy received Indian National Science Academy – Poland Academy of Science Bilateral Exchange Program Award 2016.

### **D.Seminar/Conference Organized:(Name of the Seminar / Conference-Organized by-Place-Duration)**

National Conference on Mathematical and Theoretical Biology (NCMTB 2017)–Centre for Mathematical Biology and Ecology, JU in Collaboration with Biomathematical Society of India–Department of Mathematics, JU-16-17 March 2017.

### **D. Articles Published:**

1. Das, P. N., Mehrotra, P., Mishra, A., **Bairagi, N.** and Chatterjee, S., *Calcium dynamics in cardiac excitatory and non-excitatory cells and the role of gap junction* **Mathematical Biosciences**, 289, 51-68, 2017. (**Elsevier**)
2. Biswas, M. and **Bairagi, N.** *A predator-prey model with Beddington-DeAngelis Functional Response: A non-standard finite-difference method.* **J. Difference Equations and Applications**, doi.org/10.1080/10236198.2017.1304544, 2017. (**Taylor & Francis**)
3. **Bairagi, N.** and Biswas, M. *Dynamic Consistency in a predator-prey model with habitat complexity: Nonstandard versus standard finite difference methods.* **Int. J. Difference Equations**, 11, 139–162, 2016. (**RIP**)
4. Das, K. P., **Bairagi, N.** and Sen, P: *Role of Alternative Food in Controlling Chaotic Dynamics in a predator-prey model with disease in the predator* **International Journal of Bifurcation and Chaos** 26(9) 1650147, 2016. (**World Scientific**)
5. **Bairagi, N.** and Adak, D. *Role of precautionary measures in HIV epidemics: A mathematical assessment.* **International Journal of Biomathematics**, 9(6) 1650096, 2016. (**World Scientific**)

6. Das, P. N., Pedruzzi, G., **Bairagi, N.** and Samrat Chatterjee. *Coupling calcium dynamics and mitochondrial bioenergetic: an in silico study to simulate cardiomyocyte dysfunction*. **Molecular BioSystems**, 12, 806-817, 2016. (**Royal Society of Chemistry**)
7. **Bairagi, N.** and Adak, D. *Switching from simple to complex dynamics in a predator-prey-parasite model: an interplay between infection rate and incubation delay*. **Mathematical Biosciences**, 277, 1–14, 2016. (**Elsevier**)
8. K. Ghosh, S. Samanta, S. Biswas, S. Rana, I. M. ELmojtaba, **D. Kesh** and J. Chattopadhyay, Stability and bifurcation analysis of an eco-epidemiological model with multiple delays, **Nonlinear Studies**, 2016, vol. 23, no. 2, p. 167-208.
9. **Roy Priti Kumar**, J. Chowdhury and Basir F A.: “Renewable energy biodiesel: A mathematical approach from ecology to production”, African journal of Pure and Applied Mathematics, Vol. 3, No.1, pp. 95-111, 2016.
10. Biswas D, **Roy Priti Kumar**, Xue-Zhi Li, Basir F A, Pal J.: “Role of Macrophage in the Disease Dynamics of Cutaneous Leishmaniasis: A Delay induced Mathematical study”, Communications in Mathematical Biology and Neuroscience, Volume 2016, Available online at <http://scik.org>, 2016.
11. Ghosh, M. K. and Nandi, S. and **Roy Priti Kumar**: “A mathematical model for expected time to extinction of pathogenic bacteria through antibiotic”, AIP Conference Proceedings, 1723, 030011 (2016), DOI:<http://dx.doi.org/10.1063/1.4945069>, 2016.
12. Ezio Venturino, **Roy Priti Kumar**, Basir F A, Datta A: “A model for the control of the Mosaic Virus disease in Jatropha curcas plantations”. Energy, Ecology and Environment, Springer. DOI 10.1007/s40974-016-0033-82016, 2016.
13. **Roy Priti Kumar**, Basir F A, Ezio Venturino: “Effect of Awareness Program for controlling mosaic disease in Jatropha curcas Plantations. Mathematical Methods in Applied Sciences, DOI: 10.1002/mma.4149. 2016.
14. Datta A, **Kesh D K**, **Roy Priti Kumar**: “Effect of CD4+ T-Cells and CD8+ T-Cells on Psoriasis: A mathematical study”, African journal of Pure and Applied Mathematics, Vol. 3, No.1, pp. 1-11, 2016.
15. Xianbing Cao, Datta A, Basir F A, **Roy Priti Kumar**: Fractional-Order Model of the Disease Psoriasis: A Control Based Mathematical Approach. Journal of System Science and Complexity, Vol 29, pp. 1-20, Springer, 2016.
16. Chowdhury S, **Roy Priti Kumar**, Robert J. Smith?: “Mathematical modelling of enfuvirtide and protease inhibitors as combination therapy for HIV. International Journal of Nonlinear Sciences and Numerical Simulation, 17(6), pp.259–275, 2016.
17. Chowdhury J, Basir F A, Pal J, **Roy Priti Kumar**: “Pest Control for Jatropha Curcas Plant through Viral Disease: A Mathematical Approach”, Nonlinear Studies, Vol. 23 (4) pp. 517- 532, 2016.
18. Biswas D, Datta A, **Roy Priti Kumar**: “Combating Leishmaniasis through Awareness Campaigning: A Mathematical Study on Media Efficiency”. International Journal of Mathematical, Engineering and Management Sciences, Vol.1, (3), pp. 139–149, 2016.
19. Ghosh M K, Basir F A, **Roy Priti Kumar**, Datta S, Nandi S.: “Modelling of Delay Induced control in Biochemical Reaction”, Communication in Optimization Theory, Article ID 8, 2017.

20. Ghosh M K, Pal Joydeep, **Roy Priti Kumar**: “How Memory Regulates Drug Resistant Pathogenic Bacteria? A Mathematical Study”, International Journal of Applied and Computational Mathematics”, DOI 10.1007/s40819-017-0339-z, 2017.
21. Basir F A, **Roy Priti Kumar**: “Optimization of Biodiesel Synthesis in a Batch reactor using Maximum Principle”, WSEAS TRANSACTIONS on ENVIRONMENT and DEVELOPMENT, Vol.13, pp. 252–261, 2017.
22. Saha S and **Roy Priti Kumar**: A Comparative Study between Two Systems with and without Awareness Programs in Controlling the Disease HIV/AIDS. Int. J. Appl. Math. Comput. Sci., 2017 (Accepted).
- E. Collaborations:** CMBE has collaboration with Drug Discovery Research Centre (DDRC), Translational Health Science and Technology Institute (an autonomous institute of Department of Biotechnology), Faridabad.

## MICROPROCESSOR APPLICATION FOR TRAINING EDUCATION AND RESEARCH

[Department of Computer Science and Engineering]

Phone : 2414-6766

Int. : 2457-2367/2407

Coordinator : Prof. Mita Nasipuri

E-mail : mater.centre@jadavpuruniversity.in

### 1. A. Courses Offered:[Name of the Course (short term)–Duration of the course–No. of Students]

Name of the Course	Duration of the course	No. of Students]
1 Introduction to Linux and C Programming	88 hrs	30
2 Business Intelligence and Data Warehouse	52 hrs	30

### 1. B. Number of Faculty Members:

Professor – 06

Associate Professor - 02

Assistant Professor - 02

### 2. A. Area of Research Activities (Broad Areas):

Artificial Intelligence, Pattern Recognition, Image Processing, High Performance Computing, Soft Computing, Cloud Computing, Internet of things, Wireless Sensor Network, Bio-Medical Image Processing, Multimedia Technology Development, Bioinformatics, Face Processing, Machine Learning.

### 2. B. Sponsored Projects Carried Out/Ongoing (2016-17):

#### Sarbani Roy (Co-PI)

- Title: Environmental Monitoring: Testbed of Mixed Wireless Sensor Networks

Funding agency: Department of Science and Technology, Promotion of University Research and Scientific Excellence (DST, PURSE Phase-II), Govt. of India  
Period: 4 years w.e.f. 2015

**Sarbani Roy (PI)**

- Title: Performance based Resource Management and Load balancing in Cloud Environment  
Funding agency: Mobile Computing and Innovative Applications under University with Potential for Excellence (UPE) - Phase II, Jadavpur University  
Period: 2012-2015

**Mita Nasipuri (PI)**

**Mahantapas Kundu, Debotosh Bhattacharjee, Subhadip Basu, Nibaran Das, Ram Sarkar (Co-PI)**

- Multispectral Image Analysis for Various Security and Medical Applications, PURSE-II
- Design of a Multimodal Biometric System for Various Security and Forensic applications, UPE-II

**Subhadip Basu (PI)**

- Segmentation of the carotid vasculature in human CT angiography, PI, DST-FASTTRACK

**Debotosh Bhattacharjee (PI), Mita Nasipuri (Co-PI)**

- “Development of 3D Face Recognition Techniques Based on Range Images,” DEITY, MCIT, Govt. of India.
- “Design and Development of Techniques for pain management and Breast Cancer detection using infrared imaging,” DBT, Govt. of India.
- “Telemedicine Compatible Computerized Hemocytometer Analyzer for Dengue Detection and Treatment,” DBT, MST, Govt. of India.

**Susmita Ghosh (PI)**

- DST-PURSE II  
Title: Fuzzy Set Theoretic Approach for Moving Object Detection and Tracking

**Jamuna Kanta Sing (PI)**

- 3D MRI brain image segmentation and visualization for therapy planning and monitoring from SERB, DST, GOI for 4 years (2016-2020).

**Nibaran Das (PI), Mita Nasipuri (Co-PI)**

- Extra Mural Research Project, “Development of knowledge graph from images using Deep learning”, SERB, Govt. of India

**3. A. Invited Lectures Delivered by Faculty Members Associated with the Centre**

**Debotosh Bhattacharjee**

**Invited talk on**

- “Image understanding” at MAKAUT, Kolkata, 15th March 2017.
- “Medical Image analysis” at Ljubljana University, Slovenia, 16th June 2016.

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**Session chair:**

- ICRCICN-2016, 23 - 25 September 2016, Kolkata
- ICITISEE-2016, 23-24 April 2016, Yogyakarta, Indonesia

**Nibaran Das**

- Invited talk on “Genetic Algorithm and its application”, in National Conference on Advance Computing, Communication and Devices’2017 (NCACCD 17), held on 16th – 17th March, 2017 at Department of Computer Science and Engineering, Narula Institute of Technology, Kolkata

**Sarbani Roy**

- Delivered a Lecture on “Towards Cloud Federation”, a One week workshop on Practical Perspective towards Big Data in Cloud (PPBDC 2016), Department of IT, JU, 11<sup>th</sup> July 2016.
- Delivered a Lecture on 5 days Faculty Development Programme on Internet of Things, sponsored by TEQIP-II and organized by MCKVIE, 16th August 2016.
- Delivered a Lecture on “Introduction to IOT and Cloud Computing” in Two weeks workshop on Internet of Things and Data Science Jointly Organized by Jadavpur University and University of Calcutta Under PROJECT - “REMOTE- HEALTH” funded by ITRA, Media Lab Asia, 29<sup>th</sup> August 2016.
- Delivered a lecture in the one day seminar on “Recent Trends in Intelligent Computing” at Supreme Knowledge Foundation Group of Institutions, Mankundu, Hooghly, on 10th September 2016.
- Delivered a lecture in one-day seminar on cloud computing and sensor networks at Techno India, W. B., on 13th September 2016.
- Delivered a lecture in one day Seminar organized by Computer Science Department, Bethune College, on 22nd of February, 2017.
- Delivered a lecture in a Seminar on Image Processing and Advanced Computing at MAKAUT, W. B. Sponsored by TEQIP II and IEEE Kolkata Section, on 16th March 2017.

**Subhadip Basu**

**Invited Lectures: International**

- “Multi-scale opening of conjoined fuzzy objects: theory and applications”, at LORIA, University of Lorraine, France, June 7, 2016.
- “Digital water flows: theory and applications”, at LORIA, University of Lorraine, France, June 2, 2016.
- “Pattern Recognition and Image Analysis: current research and future possibilities”, at LORIA, University of Lorraine, France, May 25, 2016.

**Invited Lectures: National**

- Invited Speaker at workshop on “Applications of Machine Learning” at NIT, Silchar, March 21, 2017.
- Invited Speaker at workshop on “Image Processing and Advanced Computing” in technical collaboration with Computer Chapter, IEEE, Kolkata section, at MAKAUT, W.B., 15th March, 2017.

- Invited Speaker at the one day seminar on “Recent Trends in Intelligent Computing” on 10th September 2016, at Supreme Knowledge Foundation Group of Institutions, Mankundu, West Bengal.
- “Pattern Recognition and Image Processing: Current Trends”, Techno India University, Aug. 10, 2016.

#### **Susmita Ghosh**

- Delivered a lecture on “Adversarial Search Strategies and Game Playing” at IDRBT, Hyderabad on June 2016.
- Delivered a lecture on “Genetic Algorithms and Their Applications” in a one week Workshop on “Applications of Machine Learning” at CSE Department, NIT Silchar, March 2017.

### **3. B. Seminar/Workshop/Conference/Symposium Attended**

#### **Debotosh Bhattacharjee**

- Presented “Expression and occlusion invariant 3D face recognition based on region classifier,” at International Conference on Information Technology, Information Systems and Electrical Engineering (ICITISEE), 22nd August to 25th August 2016, Yogyakarta, Indonesia.

#### **Nibaran Das, Ram Sarkar**

- Attended the International Document Information Processing School (IDIPS2016), Samos, Greece, 4-8 July, 2016
- Attended the International Workshop on Pattern Analysis and Applications (IWPA) organized by Computer Vision and Pattern Recognition Unit of Indian Statistical Institute, Kolkata, January 18-20, 2017.

#### **Nibaran Das**

- Attended GIAN course on “Digital Topology and Geometry in Medical Imaging: Theory and Applications” 9-14 Jan, 2017 at CSE Department, JU

#### **Debotosh Bhattacharjee, Subhadip Basu**

- Attended the Workshop on “Initiatives in Outcome based education and NBA accreditation”, under Faculty and Staff development program, organized by Jadavpur University under TEQIP-II, at Hayat Regency, Kolkata, during March 06-08, 2017.

### **3. C. Seminar/Workshop/Conference/Symposium Organized**

#### **Subhadip Basu, Sarbani Roy, Nibaran Das, Ram Sarkar**

- Joint Coordinators of Workshop on “Curriculum Development: Industry Perspectives” at Computer Science and Engineering Dept, Jadavpur University, 29-30<sup>th</sup> March, 2017.

#### **Mita Nasipuri, Subhadip Basu**

- Joint coordinator, MHRD GIAN course on “Digital Topology and Geometry in Medical Imaging: Theory and Application,” held at the CSE Department during 09/01/2017 to 14/01/2017

### **3. D. Orientation Courses/Refresher Courses Attended**

#### **Debotosh Bhattacharjee**

- 13th International Summer School on Biometrics from 20th June to 24th June 2016 at Alghero, Italy



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**4. A. Books/Monographs etc Published:**

**B. Book Chapters:**

- Sarbani Roy, Chandreyee Chowdhury, Integration of Internet of Everything (IoE) with Cloud, book chapter for Beyond the Internet of Things: Everything Interconnected”, Springer, 2017.

**E. Articles Published in Journals:**

1. Abul Hasnat, Santanu Halder, Debotosh Bhattacharjee, Mita Nasipuri, “A Proposed Grayscale Face Image Colorization System using Particle Swarm Optimization”, International Journal of Virtual and Augmented Reality (IJVAR), IGI publication, Vol. 1, Issue 2, 2017.
2. A Seal, D Bhattacharjee, M Nasipuri, “Predictive and probabilistic model for cancer detection using computer tomography images”, Multimedia Tools and Applications Journal, Springer, pp. 1-20, 2017. *Indexed in: Science Citation Index Expanded, Scopus.*
3. Satyabrata Maity, Amlan Chakrabarti, Debotosh Bhattacharjee, “A Novel Approach for Human Action Recognition from Silhouette Images,” IETE Journal of Research, Taylor and Francis Publication, pages 1-12, November 2016. *Indexed in: Science Citation Index Expanded, Scopus.*
4. Ayan Seal, Debotosh Bhattacharjee, Mita Nasipuri, “Human face recognition using random forest based fusion of à-trous wavelet transform coefficients from thermal and visible images,” AEU-International Journal of Electronics and Communications, Vol. 70, Issue 8, pp. 1041-1049, 2016, Urban & Fischer Publisher. *Indexed in: Science Citation Index Expanded, Scopus.*
5. Hiranmoy Roy, Debotosh Bhattacharjee, “Face Sketch-Photo Matching Using the Local Gradient Fuzzy Pattern,” IEEE Intelligent Systems, vol. 31, pp. 30-39, 2016. *2016.*
6. Hiranmoy Roy, Debotosh Bhattacharjee, “Face Sketch-Photo Matching Using the Local Gradient Checksum,” International Journal of Machine Learning and Cybernetics, Springer, Heidelberg, Germany, pp. 1-13, March 2016..
7. Hiranmoy Roy, Debotosh Bhattacharjee, “Local-Gravity-Face (LG-face) for Illumination-Invariant and Heterogeneous Face Recognition,” IEEE Transactions on Information Forensics and Security, vol. 11, pp. 1412-1424, 2016. *2016 Impact Factor 2.441.*
8. Prमित Ghosh, Debotosh Bhattacharjee, Mita Nasipuri, “Blood smear analyzer for white blood cell counting: A hybrid microscopic image analyzing technique”, Applied Soft Computing, Elsevier, vol. 46, pp. 629-638, 2016. *Indexed in: Science Citation Index Expanded, Scopus.*
9. Suranjan Ganguly, Debotosh Bhattacharjee, Mita Nasipuri, “Fuzzy matching of edge and curvature based features from range images for 3D face recognition”, Intelligent Automation & Soft Computing, Taylor & Francis, pp. 1-12, January 2016. *Indexed in: Thomson Reuters.*
10. S. Kahali, S. K. Adhikari and J. K. Sing, “On estimation of bias field in MRI images: polynomial vs Gaussian surface fitting method”, Journal of Chemometrics, (John Wiley & Sons), vol. 30, pp. 602–620, 2016.
11. R. Sarkhel, N. Das, A. K. Saha, and M. Nasipuri, “A multi-objective approach towards cost effective isolated handwritten Bangla character and digit recognition,” Pattern Recognit., vol. 58, pp. 172–189, 2016.
12. R. Sarkhel, T. M. Chowdhury, M. Das, N. Das, and M. Nasipuri, “A novel Harmony Search algorithm embedded with metaheuristic Opposition Based Learning,” J. Intell. Fuzzy Syst., vol. 32, no. 4, pp. 3189–3199, 2017.

13. S. Malakar, P. Sharma, P. K. Singh, M. Das, R. Sarkar, M. Nasipuri, "A Holistic Approach for Handwritten Hindi Word Recognition", *International Journal of Computer Vision and Image Processing*, IGI Global, pp. 61-81, vol. 7, issue 1, January-March-2017, ISSN: 2155-6997, eISSN: 2155-6989.
14. P. K. Singh, S. Das, R. Sarkar, M. Nasipuri, "Feature Selection using Harmony Search for Script Identification from Handwritten Document Images", *Journal of Intelligent Systems*, 2017. DOI: <https://doi.org/10.1515/jisys-2016-0070>
15. P. K. Singh, R. Sarkar, M. Nasipuri, "Significance of Non-parametric statistical tests for Comparison of classifiers over multiple datasets", *International Journal of Computing Science and Mathematics*, Inderscience, vol.7, no.5, pp. 410 – 442, 2016.
16. P. K. Singh, R. Sarkar, M. Nasipuri, "A Study of Moment Based Features on Handwritten Digit Recognition", *Applied Computational Intelligence and Soft Computing*, Hindawi, vol. 2016, Article ID 2796863, 17 pages, DOI: <http://dx.doi.org/10.1155/2016/2796863>.
17. Tanmoy Maitra, Sarbani Roy, A comparative study on popular MAC protocols for mixed Wireless Sensor Networks: From implementation viewpoint, *Computer Science Review*, Elsevier, Volume 22, pp. 107-134, November 2016.
18. Zeenat Rehana, Sarbani Roy, Nandini Mukherjee, Multi-criteria Routing in a Partitioned Wireless Sensor Network, *Wireless Personal Communications*, Springer, Volume 94, Issue 4, pp. 3415-3449, October 2016.
19. Paramita Dey, Maitreyee Ganguly, Sarbani Roy, Network centrality based team formation: A case study on T-20 cricket, *Applied Computing and Informatics*, December 2016.
20. Indranil Guha, Nirmal Das, Pranati Rakshit, Mita Nasipuri, Punam K. Saha, Subhadip Basu, "A semiautomatic approach for segmentation of carotid vasculature from patients' CTA images", *Innovations in Systems and Software Engineering*, Springer (in press).
21. P K Singh, R Sarkar, N Das, S Basu, M Kundu, M Nasipuri, "Benchmark databases of handwritten Bangla-Roman and Devanagari-Roman mixed-script document images", *Multimedia Tools and Applications*, Springer (in press).
22. P. Dutta, S. Basu and M. Kundu, "Assessment of semantic similarity between proteins using information content and topological properties of the Gene Ontology graph", *IEEE/ACM Transactions on Computational Biology and Bioinformatics* (in press).
23. A. Banerjee, S. Basu, Subhadip Basu, M. Nasipuri, "ARTEM: a new system for human authentication using finger vein images", *Multimedia Tools and Applications*, Springer (in press).
24. P. K. Saha, Subhadip Basu, E. A. Hoffman, "Multi-Scale Opening of Conjoined Fuzzy Objects: Theory and Applications," *IEEE Transactions on Fuzzy Systems* 24, no. 5 (2016): 1121-1133.
25. P. Chatterjee, Subhadip Basu, J. Zubek, M. Kundu, M. Nasipuri and D. Plewczynski, "PDP-CON: Prediction of domain/linker residues in protein sequences using consensus approach," *Journal of molecular modelling*, vol. 22, no. 4 (2016): 1-15.
26. Subhadip Basu, D. Plewczynski, S. Saha, M. Roszkowska, M. Magnowska, E. Baczynska, and J. Wlodarczyk, "2dSpAn: semiautomated 2-d segmentation, classification and analysis of hippocampal dendritic spine plasticity," *Bioinformatics*, 32 (16), pp. 2490 – 2498, 2016.
27. A. Mondal, S. Ghosh and A. Ghosh, "Robust Global and Local Fuzzy Energy based Active Contour for Image Segmentation," *Applied Soft Computing*, vol. 4. 47, no. 2016, pp. 191-215, 2016.

28. B. N. Subudhi, S. Ghosh, S-B. Cho and A. Ghosh, "Integration of Fuzzy Markov Random Field and Local Informatin for Separation of Moving Objects and Shadow", *Information Sciences*, vol. 331, pp. 15-31, 2016.
29. B. N. Subudhi, S. Ghosh, S. C. K. Shiu and A. Ghosh, "Statistical Feature Bag Based Background Subtraction for Local Change Detection", *Information Sciences*, vol. 366, issue 1, pp. 31-47, 2016.
30. A. Datta, S. Ghosh and A. Ghosh, "Unsupervised Band Extraction of Hyperspectral Images using Clustering and kernel Principal Component Analysis", *International Journal of Remote Sensing*, vol. 38, issue 3, pp. 850-873, 2017.
31. A. Mondal, S. Ghosh and A. Ghosh, "Partially Camouflaged Object Tracking using Modified Probabilistic Neural Network and Fuzzy Energy based Active Contour", *International Journal of Computer Vision*, Springer, vol. 122(1), pp. 116-148, 2017.
32. B. N Subudhi, S. Ghosh, P. K. Nanda, and A Ghosh, "Moving Object Detection using Spatio-temporal Multilayer Compound Markov Random Field and Histogram Thresholding based Change Detection", *Multimedia Tools and Applications*, vol.76, no.11, pp. 13511-13543, 2017.
33. A. Datta, S. Ghosh and A. Ghosh, "Supervised Feature Extraction of Hyperspectral Images using Partitioned Maximum Margin Criterion", *IEEE Journal of Geoscience and Remote Sensing Letters*, vol. 14, no. 1, pp. 82-86, 2017.
34. Khatua, Sunirmal, Preetam Kumar Sur, Rajib Kumar Das, and Nandini Mukherjee. "Heuristic-based resource reservation strategies for public cloud." *IEEE Transactions on Cloud Computing* 4, no. 4 (2016): 392-401.
35. Mistry, Sujoy, Dibyanshu Jaiswal, Arijit Mukherjee, and Nandini Mukherjee. "P2P Based Service Provisioning on Distributed Resources." *International Journal of Next-Generation Computing* 7, no. 3 (2016).

**F. Articles Published in Conference:**

1. Sourav Pramanik, Debotosh Bhattacharjee and Mita Nasipuri,"Texture Analysis of Breast Thermogram for Differentiation of Malignant and Benign Breast," 5th International Conference on Advances in Computing, Communications and Informatics (ICACCI), LNMIIT, Jaipur, India, September 21-24, 2016 **BEST PAPER AWARD.**
2. Ratnadeep Dey, Kaushiki Roy, Debotosh Bhattacharjee, Mita Nasipuri, "An automated system for measuring hematocrit level of human blood from total RBC count," 5th International Conference on Advances in Computing, Communications and Informatics (ICACCI), LNMIIT, Jaipur, India, September 21-24, 2016,
3. Shib Sankar Bhowmick, Indrajit Saha, Ujjwal Maulik, Debotosh Bhattacharjee "Biomarker Identification Using Next Generation Sequencing Data of RNA," 5th International Conference on Advances in Computing, Communications and Informatics (ICACCI), LNMIIT, Jaipur, India, September 21-24, 2016,
4. Amlan Raychaudhuri, Satyabrata Maity, Amlan Chakrabarti and Debotosh Bhattacharjee, "A Novel Approach for Human Silhouette Extraction from Video Data", 3rd International Doctoral Symposium on Applied Computation and Security Systems (ACSS), 12-14th August, 2016, Kolkata, India **BEST PAPER AWARD.**

5. Priya Saha, Debotosh Bhattacharjee, Barin Kumar De, Mita Nasipuri, "Mathematical Representations of Blended Facial Expressions towards Facial Expression Modeling," *Procedia Computer Science*, Volume 84, Pages 94–98, Elsevier, 2016.
6. Mrinal Kanti Bhowmik, Shawli Bardhan, Kakali Das, Debotosh Bhattacharjee, Satyabrata Nath, "Pain related inflammation analysis using infrared images," *Conference SPIE Commercial+ Scientific Sensing and Imaging*, pp. 986116-986116-14, Publisher International Society for Optics and Photonics, 2016.
7. Priya Saha, Debotosh Bhattacharjee, Barin K De, Mita Nasipuri, "Characterization and recognition of mixed emotional expressions in thermal infrared face image," *Conference SPIE Defence + Security*, pp. 98200S-98200S-10, Publisher International Society for Optics and Photonics, 2016.
8. Koushik Dutta, Debotosh Bhattacharjee, Mita Nasipuri, "Expression and occlusion invariant 3D face recognition based on region classifier," *International Conference on Information Technology, Information Systems and Electrical Engineering (ICITISEE)*, pp. 99-104, October, 2016.
9. S. Kahali, S. K. Adhikari and J. K. Sing, "3D MRI Brain Image Segmentation: A Two-Stage Framework", *Proc. of CICBA 2016*.
10. S. Ghosh, N. Das, T. Goncalves, and P. Quaresma, "Representing image captions as concept graphs using semantic information," in *2016 International Conference on Advances in Computing, Communications and Informatics (ICACCI)*, 2016, pp. 162–167.
11. S. Choudhuri, N. Das, S. Ghosh, and M. Nasipuri, "A multi-cue information based approach to contour detection by utilizing superpixel segmentation," in *2016 International Conference on Advances in Computing, Communications and Informatics (ICACCI)*, 2016, pp. 1057–1063.
12. S. M. Obaidullah, K. C. Santosh, C. Halder, N. Das, and K. Roy, "Word-Level Thirteen Official Indic Languages Database for Script Identification in Multi-script Documents," in *International Conference on Recent Trends in Image Processing and Pattern Recognition*, 2016, pp. 16–27.
13. A. Banerjee, N. Das, and M. Nasipuri, "Texture Classification Using Deep Neural Network Based on Rotation Invariant Weber Local Descriptor," in *Recent Trends in Image Processing and Pattern Recognition: First International Conference, RTIP2R 2016, Bidar, India, December 16—17, 2016, Revised Selected Papers*, K. C. Santosh, M. Hangarge, V. Bevilacqua, and A. Negi, Eds. Singapore: Springer Singapore, 2017, pp. 277–292.
14. S. M. Obaidullah, C. Goswami, K. C. Santosh, C. Halder, N. Das, and K. Roy, "Separating Indic Scripts with `matra`—A Precursor to Script Identification in Multi-script Documents," in *Proceedings of International Conference on Computer Vision and Image Processing: CVIP 2016, Volume 1*, B. Raman, S. Kumar, P. P. Roy, and D. Sen, Eds. Singapore: Springer Singapore, 2017, pp. 205–214.
15. T. Bandyopadhyay, S. Mitra, S. Mitra, L. M. Rato, and N. Das, "Analysis of Pancreas Histological Images for Glucose Intolerance Identification Using Wavelet Decomposition," in *Proceedings of the 5th International Conference on Frontiers in Intelligent Computing: Theory and Applications/ : FICTA 2016, Volume 1*, S. C. Satapathy, V. Bhateja, S. K. Udgata, and P. K. Pattnaik, Eds. Singapore: Springer Singapore, 2017, pp. 653–661.
16. S. Choudhuri, N. Das, and M. Nasipuri, "A Quality-Concordance Metric Based Contour Detection by Utilizing Composite-Cue Information and Particle Swarm Optimisation," in *Proceedings of the 5th International Conference on Frontiers in Intelligent Computing: Theory and Applications/ :*



- FICTA 2016, Volume I, S. C. Satapathy, V. Bhateja, S. K. Udgata, and P. K. Pattnaik, Eds. Singapore: Springer Singapore, 2017, pp. 641–651.
17. B. Das, S. Bhowmik, A. Saha, R. Sarkar, “An Adaptive Foreground-Background Separation Method for Effective Binarization of Document Images”, in 8th International Conference on Soft Computing and Pattern Recognition (SoCPaR 2016), December 19-21, 2016, VIT University, Vellore, India.
  18. P. K. Singh, S. Das, R. Sarkar, M. Nasipuri, “Recognition of Offline Handwritten Devanagari Numerals using Regional Weighted Run Length Features”, in International Conference on Computer, Electrical & Communication Engineering (ICCECE), 16-17 December, 2016, Kolkata, India. **BEST PAPER AWARD**
  19. S. Begum, D. Chakraborty, R. Sarkar, “Breast Cancer Detection using Feature Selection and Active Learning”, in ACCET, CRC Press, Taylor & Francis, pp. 212-217, 20-21 October, 2016, Murshidabad, India.
  20. S. Bhowmik, S. Sen, N. Hori, R. Sarkar, M. Nasipuri, “Handwritten Devanagari numerals recognition using Grid based Hausdorff distance”, in ACCET, CRC Press, Taylor & Francis, pp. 148-151, 20-21 October, 2016, Murshidabad, India.
  21. S. Sen, M. Mitra, S. Chowdhury, R. Sarkar, K. Roy, “Quad-tree based Image Segmentation and Feature Extraction to Recognize Online Handwritten Bangla Characters”, in 7th IAPR TC3 Workshop on Artificial Neural Networks for Pattern Recognition (ANNPR 2016), LNCS, 9896, Springer 2016, ISBN 978-3-319-46181-6, pp. 246-256, September 28-30, 2016, Ulm, Germany.
  22. P. K. Singh, R. Sarkar, M. Nasipuri, “Statistical Textural features for Text-line level Handwritten Indic Script Identification”, in 3rd International Doctoral Symposium on Applied Computation and Security Systems (ACSS), 12-14 August 2016, Kolkata, India.
  23. S. Sen, R. Sarkar, K. Roy, “An Approach to Stroke-based Online Handwritten Bangla Character Recognition”, in 3rd International Doctoral Symposium on Applied Computation and Security Systems (ACSS), 12-14 August 2016, Kolkata, India.
  24. S. Begum, D. Chakraborty, R. Sarkar, “Identifying cancer biomarkers from leukemia data using feature selection and supervised learning”, in IEEE 1st International Conference on Control, Measurement and Instrumentation (CMI-2016), pp. 249-253, 8-10, January, 2016, Kolkata, India.
  25. N. Chakraborty, S. Mukherjee, A. R. Naskar, S. Malakar, R. Sarkar, M. Nasipuri, “Venn Diagram based Feature Ranking Technique for Key Term Extraction”, in 5th International Conference on Frontiers of Intelligent Computing: Theory and applications (FICTA), Springer AISC, 16-17 September 2016, Bhubaneswar, India.
  26. S. Barua, S. Malakar, S. Bhowmik, R. Sarkar, M. Nasipuri, “Bangla Handwritten City Name Recognition using Gradient based Feature”, in 5th International Conference on Frontiers of Intelligent Computing: Theory and applications (FICTA), Springer AISC, 16-17 September 2016, Bhubaneswar, India.
  27. Benay Ray, Asif Middya, Sarbani Roy, Sunirmal Khatua, Multi-Criteria Based Federation Selection in Cloud, in 9th International Conference on COMMunication Systems & NETworkS (COMSNETS), Bangalore, India, 2017.
  28. Tanmoy Maitra, Sarbani Roy, SecPMS: An Efficient and Secure Communication Protocol for Continuous Patient Monitoring System Using Body Sensors, in 9th International Conference on COMMunication Systems & NETworkS (COMSNETS), Bangalore, India, 2017.

29. Amitrajit Sarkar, Srijan Chattopadhyay, Paramita Dey, Sarbani Roy, "The Importance of Seed Nodes in Spreading Information in Social Networks: A Case Study", in 9th International Conference on COMMunication Systems & NETworkS (COMSNETS), Bangalore, India, 2017.
30. Srimoyee Bhattacharjee, Uttiya Sarkar, Sunirmal Khatua, Sarbani Roy, "PMM: A Novel Prediction Based VM Migration Scheme in Cloud Computing", 13th International Conference on Distributed Computing and Internet Technology (ICDCIT), pp 107-117, Bhubaneswar, Odisha, India, 2017.
31. Joy Dutta, Sarbani Roy, "IoT-Fog-Cloud based Architecture for Smart City: Prototype of a Smart Building", 7th International Conference on Cloud Computing, Data Science & Engineering, CONFLUCENCE, Noida, Uttar Pradesh, India, 2017.
32. Joy Dutta, Chandreyee Chowdhury, Sarbani Roy, Asif Iqbal Moidya, Firoj Gazi, "Towards Smart City: Sensing Air Quality in City based on Opportunistic Crowd-sensing", 18th International Conference on Distributed Computing and Networking (ICDCN), Hyderabad, India.
33. Sayanti Mondal, Chandreyee Chowdhury, Sarbani Roy, Sumanta k. Deb, Sarmistha Neogy, "Crash Failure Immune Offloading Framework", in 10th IEEE International Conference on Advanced Networks and Telecommunications Systems (ANTS 2016), Bangalore, India.
34. Joy Dutta, Firoj Gazi, Sarbani Roy, Chandreyee Chowdhury, "AirSense: Opportunistic Crowd-Sensing based Air Quality monitoring System for Smart City", in IEEE Sensors, Orlando, FL, USA, 2016.
35. Tanmoy Maitra, Paramita Mallick, Sarbani Roy, "LD-MAC: A Load-Distributed Data Transmission in Body Area Network", in IEEE Sensors, Orlando, FL, USA, 2016.
36. Moumita Deb and Sarbani Roy, "Link Quality Modeling for Energy Harvesting Wireless Sensor Networks", Proceedings of the First International Conference on Intelligent Computing and Communication, Volume 458 of the series Advances in Intelligent Systems and Computing, Springer Singapore, pp. 669-678, 2016.
37. S Paul, H Nasser, M Nasipuri, P Ngo, S Basu, I Debled-Rennesson, "A Statistical-Topological Feature Combination for Recognition of Isolated Hand Gestures from Kinect Based Depth Images", IWCI-2017, Plovdiv, Bulgaria [Accepted].
38. P. Dutta, S. Basu and M. Kundu, "A new hybrid semantic similarity measure using information content and topological features of the Gene Ontology graph.", 2017 International Conference on Computer Communication and Informatics. [Accepted].
39. Abhimanyu Prasad, Sovan Saha, Piyali Chatterjee, Subhadip Basu and Mita Nasipuri, "Protein Function Prediction from Protein Interaction Network using Bottom-Up L2L Apriori Algorithm", in the First International Conference on Computational Intelligence, Communications, and Business Analytics (CICBA - 2017), March 24-25, 2017.
40. P. Rakshit, N. Das, M. Nasipuri, S. Basu, "A Qualitative Hemodynamic Analysis on Human Cerebrovascular Phantom", 1st International Conference on Advanced Computing and Intelligent Engineering (ICACIE), Dec. - 2016.
41. S. Saha, P. Chatterjee, S. Basu, M. Kundu, M. Nasipuri, "Gene Ontology Based Function Prediction of Human Protein Using Protein Sequence and Neighborhood Property of PPI Network", FICTA, Sep, 2016.



42. Pranati Rakshit, Nirmal Das, Mita Nasipuri and Subhadip Basu, "Hemodynamic Analysis on Human Cerebrovascular Phantom with and without Aneurysm" in International Conference on Computing and Communication System– November 11-13, 2016 (I3CS-2016).
43. R. Mitra, P. Chatterjee, S. Basu, M. Kundu, M. Nasipuri, "PLoc-Euk: An ensemble classifier for prediction of Eukaryotic Protein Subcellular Localization", FICTA, Sep, 2016.
44. I. Guha, N. Das, P. Rakshit, M. Nasipuri, P. K. Saha, S. Basu, "Design of cerebrovascular phantoms using fuzzy distance transform based geodesic paths", 4th International Conference on Advanced Computing, Networking, and Informatics (ICACNI), Sep. 2016. **BEST PAPER AWARD**
45. Sovan Saha, Piyali Chatterjee, Subhadip Basu, Mita Nasipuri "Functional Group Prediction of Un-annotated Protein by Exploiting its Neighborhood Analysis in Saccharomyces Cerevisiae Protein Interaction Network" in the Proceedings of 3rd International Doctoral Symposium on Applied Computation and Security Systems (ACSS) 2016.
46. Subhadip Basu, Punam Kumar Saha, Dariusz Plewczynski, M. Roszkowska, M. Magnowska, Jakub Wlodarczyk, "3dSpAn: assessment of structural plasticity in hippocampal dendritic spines using quantitative 3-D morphometry", EMBO Conference on Imaging the Brain, 18-21 May, 2016, Poland.
47. A. Mondal, K. R. Murthy, A. Ghosh and S. Ghosh, "Robust Image Segmentation using Global and Local Fuzzy Energy based Active Contour" IEEE International Conference on Fuzzy System (FUZZ-IEEE 2016) IEEE, pp. 1341-1348, Canada, 2016.
48. A. Mondal, S. Ghosh and A. Ghosh, "Neural Approach for Object Tracking in Complex Environment", IEEE International Conference on Systems, Man, and Cybernetics (SMC 2016), IEEE, pp. 1-6, Budapest, 2016.
49. A. Mondal, A. Ghosh and S. Ghosh, Prototypes based Discriminative Appearance Model for Object Tracking, Indian Conference on Computer Vision, Graphics and Image Processing (ICVGIP), ACM, pp. 1-8, India, 2016.
50. S. Das, J. Leopold, S. Ghosh and S. K. Das, "Graph Partitioning in Parallelization of Large Scale Networks", IEEE Conference on Local Computer Networks (LCN) 2016, pp. 176-179.
51. S. Das, S. K. Das and S. Ghosh, "Inferring Future Links in Large Scale Networks", IEEE Conference on Local Computer Networks (LCN) 2016, pp. 242-252.
52. S. Bose and N. Mukherjee, "Senslaas: A Sensor-Cloud Infrastructure with Sensor Virtualization," 2016 IEEE 3rd International Conference on Cyber Security and Cloud Computing (CSCloud), Beijing, 2016, pp. 232-239. doi: 10.1109/CSCloud.2016.28
53. S. Bose and N. Mukherjee, "PrIOR: A prime number based I/O redirection algorithm for sensor-cloud infrastructure," 2016 International Conference on High Performance Computing & Simulation (HPCS), Innsbruck, 2016, pp. 605-612. doi: 10.1109/HPCSim.2016.7568391
54. S. Bose, N. Mukherjee and S. Mistry, "Environment Monitoring in Smart Cities Using Virtual Sensors," 2016 IEEE 4th International Conference on Future Internet of Things and Cloud (FiCloud), Vienna, 2016, pp. 399-404. doi: 10.1109/FiCloud.2016.63
55. A. Gupta and N. Mukherjee, "Rationale behind the virtual sensors and their applications," 2016 International Conference on Advances in Computing, Communications and Informatics (ICACCI), Jaipur, 2016, pp. 1608-1614. doi: 10.1109/ICACCI.2016.7732278
56. A. S. Mondal, S. Chattopadhyay, S. Neogy and N. Mukherjee, "Object based schema oriented data storage system for supporting heterogeneous data," 2016 International Conference on Advances

in Computing, Communications and Informatics (ICACCI), Jaipur, 2016, pp. 1025-1032. doi: 10.1109/ICACCI.2016.7732179

57. S. Mondal and N. Mukherjee, "Mobile-assisted remote healthcare delivery," 2016 Fourth International Conference on Parallel, Distributed and Grid Computing (PDGC), Wagnaghat, 2016, pp. 630-635.

58. S. Mondal and N. Mukherjee, "A framework for ICT-based primary healthcare delivery for children," 2017 9th International Conference on Communication Systems and Networks (COMSNETS), Bengaluru, India, 2017, pp. 525-529.

59. A. Gupta, S. Sarkar and N. Mukherjee, "On uncertainty determination in eHealth sensors," 2017 IEEE Sensors Applications Symposium (SAS), Glassboro, NJ, 2017, pp. 1-6.

## **5. Collaborative Programmes:**

### **Subhadip Basu**

- Collaborative research program with the Department of Electrical and Computer Engineering, University of Iowa, USA

### **Susmita Ghosh**

- Acting as **local coordinator** on behalf of Jadavpur University for Erasmus Mundus Action 2 Project **India for EU II** selected under EACEA 42/11 Lot 11 (URL: [www.india4eu.eu](http://www.india4eu.eu))  
Funding Agency : European Union  
Period: 15.07.2012 – 14.07.2016
- Acting as **local coordinator** on behalf of Jadavpur University for Erasmus+ Program (Coordinated by UPM, Madrid)  
Funding Agency : European Union  
Period: 2016 onwards

## **6. Major Achievements:**

### **Jamuna Kanta Sing**

- UGC Research Award 2014, Project Title: Development of Intelligent Methods for Person Tracking and Recognition in Surveillance Systems, Amount: Rs. 3,00,000.00 + Full Salary for 2 Years, Duration: 2014-2016.

### **Subhadip Basu**

- Received an honorary position as Research Scientist from Department of Electrical and Computer Engineering, University of Iowa, USA.
- Received Research Award from UGC, Govt. of India for 2016-2018
- Visiting Professor at LORIA, University of Lorraine, France, May-June, 2016.

### **Debotosh Bhattacharjee**

- EMINTE Fellowship from European Commission for Visiting Researcher at University of Ljubljana, Slovenia, 2016.

### **Nibaran Das**

- 3rd Excellence award in the International Document Information Processing School (IDIPS 2016), Samos, Greece, 4-8 July, 2016

## NUCLEAR AND PARTICLE PHYSICS RESEARCH CENTRE

[Department of Physics]

Int. : 2457-2352

Coordinator : Prof. Argha Deb

E-mail : nprp.centre@jadavpuruniversity.in

### 1. B. Number of Faculty Members: 4 (four)

### 2. A. Area of Research Activities:

- High energy hadronic and leptonic interactions
- Relativistic and ultra-relativistic heavy ion interactions
- Quark gluon plasma
- Monopole search
- SQN search
- Environmental radioactivity
- Radon Physics
- Hadron structure
- Astroparticle Physics
- Early Universe

### 2. B. Major Research Projects :

Project Title	Funding Agency
(Ongoing)	
1. Real Time Radon Monitoring for Seismic Surveillance	UGC, India
2. Search for New Physics beyond Standard Model: Insights from LHC and neutrino experiments	DST, India

### 3. A. Invited Lectures Delivered/ Session Chaired :

#### Invited Talk Delivered

#### Prof. A. Deb

Workshop and Symposium: 8<sup>th</sup> Vidyasagar-S. N. Bose National Workshop 2017 on Nuclear and Astrophysics: Two opposite ends of Dimension (NATD 2017)

Title: Radioactive Radon: Enigmatic Impact

Venue: Vidyasagar University

Date: 17-19 January, 2017

### 3. B. Seminar/Workshop/Conference/Symposium Attended:

1. National Conference on Nuclear and Accelerator Physics, (NCNAP-2016 , Oct 4-6 ) at Ranchi.
2. DAE- BRNS Symposium on Nuclear Physics, December 4-9, 2016
3. First Regional Science and Technology Congress, 13<sup>th</sup> and 14<sup>th</sup> November, 2016

### 4. B. Articles Published in Journals:

1. M. Mondal, S. Biswas Ghosh, D. Ghosh, A. Deb, Forward-backward multiplicity correlations in ring like and jet like events in  $^{16}\text{O}-\text{AgBr}$  interactions at 60 AGeV, Phys. Part. Nucl. Lett. , 2017, 14,459-464
2. D. Ghosh, R. Saha, A. Deb, Study of phase transition and its dependence on target excitation using fractal properties of pionization process , In press Canadian J.of Phys.

3. M. Mondal, A. Mondal, D. Ghosh and A. Deb, Target excitation dependent erratic fluctuation of pions in hadron – nucleus interactions, *Can. J Phys.* 2016, 94, 112
4. A. Samanta, S. K. Mandal and H. Manna, Are supersymmetric models with minimal particle content under tension for testing at LHC?, *Phys. Lett. B* 2016, 763, 234
5. A. Bhaduri, S. Bhaduri, D. Ghosh, Azimuthal pion fluctuation in ultra relativistic nuclear collisions and centrality dependence—a study with chaos based complex network analysis, 2017, *Phys. Part. Nucl. Lett.* 14, 576
6. S. Bhaduri, A. Bhaduri, D. Ghosh, A new approach of chaos and complex network method to study fluctuation and phase transition in nuclear collision at high energy, 2017, *Eur. Phys. J. A53*, 135

**5. Collaborative Programmes :**

Jadavpur – N.I.T. Sikkim Collaboration  
Earthquake precursor study using soil-radon anomaly

**PLASMA STUDIES**

[Department of Instrumentation Science]

Phone: 2414-6321

Int.: 2457- 2379/2378

Co-ordinator: Prof Radhaballabh Bhar,

E-mail: ps.centre@jadavpuruniversity.in

**1. B.Number of Faculty Members:**

No permanent Faculty Member. Teachers, Researchers of participating Departments, other Institutes, Colleges. Participate in the activities of the Centre.

**C. Participating Departments:** Instrumentation Science, J.U.  
Mathematics, J.U.  
Physics, J.U.

**D. Collaborating Institutes:**

**Collaborative Institute (International):**

- i) Universita Degli Studi de Milano-Bicocca (Italy)
- ii) Centre Lasers Intenseset Application, University Bordeaux, France.
- iii) University of North Carolina, Charlette (USA).
- iv) Beijing Agricultural University(China)

**Collaborative Institute (India):**

- i) Bhaba Atomic Research Centre (BARC) (Mumbai).
- ii) Tata Institute of Fundamental Research (Mumbai).

- iii) Saha Institute of Nuclear Physics (SINP), Kolkata, Plasma Division.
- iv) Institute for Plasma Research, Gandhinagar.
- v) Indian Statistical Institute, Kolkata, Physics & Mathematics Unit.
- vi) University of Calcutta, Department of Applied Mathematics

**2. A. Area of Research Activities** (Jointly with Dept. of Instrumentation Science, JU)

- i) Basic Plasma Physics : Linear & Non-linear wave processes.
- ii) Laser Plasma interaction: Inertial confinement fusion (ICF) related collaborative theoretical & experimental programme.
- iii) High Energy Density Plasma: Fluid Dynamics, Interfacial Fluid Instabilities applicable to ICF target and Astrophysics.
- iv) Dusty Plasma.
- v) Astrophysical Plasma.

**2. B. Major Ongoing Research Project** (Jointly with Dept. of Instrumentation Science)

**(Name of the Teacher–Title of the Project–Funding Agency)**

Prof. M. Khan, (PI) Prof. R. Bhar (Co-PI), Prof. N. Chakrabarti (Co-PI), Prof. Samiran Ghosh (Co-PI),  
–Time Dependent Nonlinear Structure in Plasmas in the Frame Work of Lagrangian Fluid Description  
–CSIR, GOI, 2017- 20

Prof. M. Khan (PI), Prof. R. Bhar (Co-PI), Prof. R. K. Roychaudhury (Co-PI), ACNCP & ISI (Ex),  
Kolkata–Investigation of interfacial fluid instabilities under the combined action of compressibility,  
magnetic field and velocity shear–DST, Govt. of India duration 2013-16 Completed on 30.09.2016

**2. C. Seminar/Workshop/Conference/Symposium Organized: (Name of the Teacher, Name of the Paper Presented (if any) Name of the Seminar, Place, Duration)**

Name of the Teacher acted as co-ordinator /Convener–Sponsored by–Name of Workshop/Training Programme–Organized by–Duration

Convener: Prof R. Bhar–DST PURSE–National Seminar on ‘**Recent Development in Plasma Physics**’–Centre for Plasma Studies, Dept. Of Instrumentation Sc., JU, and ACNCP, Kolkata  
–February 27, 2017.

Convener: Prof R. Bhar –Family members of Prof Gupta, Centre for Plasma studies and ACNCP, Kolkata **On the occasion of Prof. M. R. Gupta’s** 85th birth anniversary, a seminar was organized -Centre for Plasma Studies, Dept. of Instr. Sc, JU, and ACNCP, Kolkata–August 4, 2016

**3. A. Invited Lecture Delivered/Charing a Session:**

**(Name of the Teacher–Type of Seminar/ Workshop/Conference–Organizer/Place–Duration – N o of days/Week)**

Prof M. Khan–Delivered series of Lecture on Dusty Plasma, Hydrodynamical Instabilities.–  
Department of Physics, Beijing Agricultural University, China–Nov 1-10, 2016–10 days

Prof R. Bhar–2. International Conference on Role of Microscopy and Allied Techniques in the  
Development of Multifunctional & nano materials.–Fakir Mohan University, Balasore, Odisha (Chaired  
a session)–November 25 – 27, 2016.–3 days

Prof R. Bhar–National Seminar **on ‘Deformation and Texture of Materials’**–Centre of  
Excellence in ‘Phase Transformation and Product Characterization, JU–16<sup>th</sup> February, 2017–One  
day

**3. B. Seminar/Workshop/Symposium Attended and Presented Papers:**

*(Name of Teacher-Conference/Workshop/Place/Duration-Paper/Invited talk - Duration)*

Prof M.Khan-National Conference on Plasma Physics and Nonlinear Dynamics- Delivered an invited Talk on '**An overview of Laser induced Fusion Energy**'- March 23 - 24, 2017

Prof R. Bhar- Fakir Mohan University, Balasore, Odisha- Invited talk on : **Microscopy and Its Application for Characterization of Smart Materials.**- November,25 - 27, 2016

Prof R. Bhar- Refresher Course for College and University Teachers on 'Recent trends in Biological Science', Dept. Of Life Sc. And Biotechnology, JU - Delivered Invited talk on '**Microscopy: LM,TEM,SEM &AFM: and its application in Biological Sciences**'- January 2 - 21 2017 = 21 days

**4. B. List of Publications in Referred Journals During 2016-17**

1. Nonlinear Wave breaking in self gravitating viscoelastic quantum fluid,A.Mitra, R. Roychoudhury,**R.Bhar, Manoranjan Khan**, Phys.Lett A.381,639(2017).
2. Magnetosonic shock wave in collisional pair-ion plasma, A. Adak, A.Sikdar, S.Ghosh, **Manoranjan Khan**, Phys. Plasmas 23,062124(2016)
3. Chemical synthesis of nanoparticles of nickel telluride and cobalt telluride and its electrochemical applications for determination of uric acid and adenine, Susmita Pradhanan, Rashmita Das, Sudip Biswas, Dipak K Das, **Radhaballabh Bhar**, Rajib Bandyopadhyay, Panchanan Pramanik, Electrochimica Acta (2017) 238,185 - 193.
4. Probing local structure of co doped polyvinylidene fluoride-ZnO thin films using X-ray absorption spectroscopy, R Dey, A.K. Yadav, R. Bhunia, S.N. Jha, D. Bhattacharyya, S Hussain, **R Bhar**, A.K.Pal, Spectrochimica Acta Part B: Atomic Spectroscopy(2017),131, 115 - 123
5. Nonlinear wave breaking in self-gravitating viscoelastic quantum fluid, A Mitra, R R. Roychoudhury, **R Bhar**, M Khan, Physics Letters A (2017)381 (6), 639-645.
6. Structural and Optical Studies on Sol-gel Composites of Nickel-Doped Nanocrystalline Zinc Oxide/ Polyvinylidene Fluoride, R Dey, R Bhunia, S Hussain, BR Chakraborty, **R Bhar**, AK Pal, Polymer-Plastics Technology and Engineering (2017)56 (3), 310-320.
7. Flexible nano-ZnO/ polyvinylidene difluoride piezoelectric composite films as energy harvester, R Bhunia, S Das, S Dalui, S Hussain, R Paul, **R Bhar**, AK Pal, Applied Physics A (2016)122 (7), 1-13.
8. Structural and Optical Properties of Manganese Doped Nanocrystalline Zinc Oxide/ Polyvinylidene Fluoride Flexible Composite Thin Films Deposited by the Sol-Gel Method, R Bhunia, S Das, S Hussain, G Sehgal, B.R. Chakraborty, **R. Bhar**, A.K.Pal, (2016), Advances in Polymer Technology.
9. Local structure studies of Ni doped ZnO/PVDF composite free-standing flexible thin films using XPS and EXAFS studies, AK Yadav, R Dey, R Bhunia, S Hussain, SN Jha, D Bhattacharyya, **R Bhar**, A.K.Pal, Journal of Polymer Research 23 (12), (2016),265.
10. Room Temperature Magnetism in Free-standing nano-Ni/PVDF Composites, R Dey, R Bhunia, S Hussain, P Dutta, S Chatterjee, **R Bhar**, AK Pal, Polymer-Plastics Technology and Engineering(2016),1-12.



## QUALITY MANAGEMENT SYSTEM

[Department of Mechanical Engg.]

Int. : 2457-2488/2256/2582

Coordinator : Prof Sadhan Kumar Ghosh

E-mail : qms.centre@jadavpuruniversity.in

### Major Research Project:(Departmental/Individual-Name of the Project/Funding agency).

#### International Research Projects (Funded) ongoing -Prof Sadhan K Ghosh as Principal Investigator

1. **Erasmus Plus Programme** (August 2015–Sept 2016) :Indo-Thai–UK Research Programme under Erasmus+ Programme, Focus : Supply Chain Sustainability in SME, Food Supply Chain & Energy Recovery from Waste, Partners : Jadavpur University, India, Aston University, UK; Asian Institute of Technology, Thailand and University of Thailand Chamber of Commerce, Thailand; Fund : 24,000 EURO.
2. **UKIERI** (June 2015 – extended up to May 2017): UK India Educational Research Initiative – Thematic Partnership Research Project “Developing Low Carbon SMEs in India and the UK through Lean and Green Manufacturing” Partners: Jadavpur University, India & Aston University, UK;, 10,000 GBP.
3. **UKIERI** (2013 –Extended up to 2016 June) : UK India Educational Research Initiative – Thematic Partnership Research Project “Climate Change Issues and Environmental Performance of Small and Medium-sized Enterprises (SMEs) in India and the UK”, Partners are Aston University, UK, ITRC, CSIR Lucknow and IIT Kgp, 2012 – 2014 (Extended up to 2016 March) – 40,000 GBP.
4. **Research Project by Asian Productivity Organisation (APO), Japan and China Productivity Council, Taiwan** (May 2016 – continued): “Green Productivity for the Base of the Pyramid for Sustainable Development in APO Member Countries”. Lead Partner : National Taipei University of Technology, Taiwan; Partners : India, represented by Jadavpur University; Central Institute for Economic Management, Vietnam; National Environment Board, Thailand Ministry of Natural Resources and Environment; PT Aicón Global Indonesia, Indonesia; Malaysia Productivity Corporation (MPC), Malaysia; William Davidson Institute at the University of Michigan; USA; Funding Agencies : APO, Japan and CPC, Taiwan – 30,000 USD.

#### Collaborative International Research Projects (Non-Funded) ongoing - Prof Sadhan K Ghosh as Principal Investigator

1. “Global Waste Management, Resource Circulation and 3R” (March 2016 – March 2020); Lead Partner : 1. Jadavpur University, India; Lead Supporting Organisation/Society : 2. International Society of Waste Management, Air and Water (ISWMAW) and 3. Consortium of Researchers in International Collaboration (CRIC). Collaborative Partners and respective country Lead : 4. Australia; Griffith University, Griffith School of Engg, Queensland, 5. Egypt, University of Cairo; 6. Germany, Rostock University; 7. Italy, LAR<sup>5</sup> Laboratory – Dipartimento di Ingegneria, University of Perugia, Perugia; 8. Rep. of Korea, Kyonggi University. 9. South Africa- The Cape Peninsula University of Technology, Cape Town; 10. Thailand, AIT; 11. USA, Widener University.

2. **BRICS E-waste Project** (July 2015 – up to July 2019) : “Waste electrical and electronic equipment management and Basel Convention compliance in Brazil, Russia, India, China and South Africa (BRICS) nations”. Collaborative research project with individual funding; Lead Partner: Department of Mechanical Engineering, Jadavpur University, India; Other Partners : BCRCAP, Tsinghua University, BCRC, China; Dept of Civil, Env & Arch Engineering, University of Colorado, USA; State Dept of City Management, Saint-Petersburg State University of Economic, Russian Federation; School of Env. Sciences, University of Venda, South Africa; Innovarelab Pesquisa e Consultoria, São Paulo, Brazil.
3. **India and China** - Collaborative Research Project on *E-waste Management* (October 2016 – October 2019): Jadavpur University and Tsinghua University, Beijing, China.
4. **India & Italy** : Collaborative Research Project on “*Sustainable Development Goals – Realisation in Global Perspective*” (June 2016 – December 2019) : Partners : Jadavpur University, India; LAR<sup>5</sup> Laboratory – Dipartimento di Ingegneria, University of Perugia, Perugia, Consortium of Researchers in International Collaboration (CRIC) and International Society of Waste Management, Air and Water (ISWMAW).

**Invited Lectures Delivered / Session Chaired:**

**Lectures Delivered in Foreign Countries by Prof. Sadhan K. Ghosh**

1. **USA, Invited to deliver The Opening Plenary Speech in** Philadelphia, on “Circular Economy in Asian Countries”, in the Thirty First International Conference on Solid Waste Technology and Management, Philadelphia, Widener University, USA held during April 15-18, 2016.
2. **Taiwan, Asian Productivity Organisation (APO), Japan and China Productivity Council, Taiwan** : Delivered speech on “GP for the Base of the Pyramid for Sustainable Development in India and further improvement” in the Coordination meeting during 3-5 May, 2016 at Taipei, ROC.
3. **China, Hefei University, Hefei, China** : Invited Speech on “Waste to Energy” in International Conference on Waste Management in Hefei University, Hefei, China, during May 18-19, 2016.
4. **China , Hefei University, Hefei, China** : Invited Speech on “Innovation in Environment Management System” in Hefei University, Hefei, China, on May 20, 2016.
5. **UK, Aston Business School, Aston University, June 2016,**– Delivered speech in the workshop in Aston Business School, Birmingham, UK on “Managing sustainable food supply chains in India and other developing countries” on 21st June 2015 as a part of , Erasmus Plus Programme and “SME performance towards Low carbon emission” as a part of UKIERI project on 22<sup>nd</sup> June 2016.
6. **Italy, Monash University, Prato, June 2016** – Delivered speech “*Decision Support Systems (DSSs) help implement energy recovery from waste projects in India and the UK*” and “*Climate Change Issues and Sustainability Performance of Small and Medium-sized Enterprises (SMEs) in Developed and Emerging Economies*” in the “Sustainable Development Workshop” hosted by the Monash Business & Sustainability Network and Centre for Development Economics and Sustainability at Monash University Prato Centre, Prato, Tuscany, Italy, June 24-25, 2016.
7. **China, Basel Convention Regional Centre for Asia and the Pacific, Miangyang, and Kunming, October 2016** - Invited by Tshinhua University, Beijing China to deliver the plenary

speech on “*Role of Biomass for economy development by BOP group*” in the 11<sup>th</sup> International Conference on Waste Management and Technology by Basel Convention centre, on October 21-24, 2016 at Jingy Hotel, Beijing China.

8. **Laos PDR, National University of Laos, October 2016** - Invited by **National University of Laos, October 2016 and Aston University, UK** to deliver Keynote speech on “Waste to Energy in ASEAN and the UK” during 25-26, October 2016 in the “UK-ASEAN Innovation Conference” at Lao Plaza Hotel, 63 Samsenthai Road, Vientiane, Laos.
9. **Australia, International Expert invited by UNCRD under United Nations:** Prof. Sadhan Kumar Ghosh of mechanical engineering department was invited as International Expert by United Nations Centre for Regional Development (UNCRD); Australian Government and Ministry of the Environment, Japan (MOEJ) for the Plenary Speech on “*Potential of economic utilization of biomass waste in India~Implications towards SDGs*’ and as the Facilitator/Moderator for the open discussion in the Country Presentations on Afghanistan, Cambodia, Lao PDR, the Republic of Korea, Niue, Vanuatu, Tuvalu in the “7th Regional 3R forum in Asia and the Pacific”, 2-4 November 2016, Adelaide Convention Centre, Adelaide, Australia, Theme, “Advancing 3R and Resource Efficiency, for the 2030 Agenda for Sustainable Development”.
10. **Bangladesh:** Delivered the Keynote Speech in the WasteSafe 2017, 4<sup>th</sup> International Conference on Waste Management in South Asian Countries, held during February 25-27, 2017 at KUET, Khulna, Bangladesh.
11. **Bangladesh:** Delivered the Invited Speech on “Global Waste Management” held on February 27<sup>th</sup> , 2017 at Khulna University, Bangladesh.
12. **USA, Invited to deliver The opening Plenary speech in Philadelphia, USA on** “Circular Economy and 3Rs – Reduce, Reuse, Recycle for Efficient Use of Resources”, in the 32<sup>nd</sup> International Conference on Solid Waste Technology and Management, Philadelphia, Widener University, USA to be held during March 19-22, 2017. <http://solid-waste.org/past-conferences-and-proceedings/proceedings/2017-2/>

#### **List of Selected Lectures Delivered in India by Prof. Sadhan K. Ghosh**

1. **New Delhi:** Delivered the Speech in the Special Session on “3R Implementation in India” in the 4<sup>th</sup> 3RINCs, 4th International Conference on Materials Cycles and Waste Management held during March 8-10, 2017 at Indian Habitat Centre, New Delhi, India supported by Kyoto University, IIP Dehradun, ISWMAW, UNCRD and IEGS, Japan.
2. **New Delhi:** Delivered the Keynote Speech on “Economic Utilisation of Biomass in India : SWM Perspective” in the APN Workshop, 3<sup>rd</sup> International Conference on Materials Cycles and Waste Management held on March 10, 2017 at Indian Habitat Centre, New Delhi, India organised by Ministry of Environment, Japan.
3. **Delhi, Panellist in World Sustainable Development Summit:** Prof. Sadhan Kumar Ghosh of mechanical engineering department was invited in as panellist in the “*World Sustainable Development Summit*” on October 5 - 8, 2016 at Biggyan Bhawan, New Delhi to deliver on *EU–India collaboration for Resource Efficiency and the Circular Economy*, organised by TERI.

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**Session Chaired by Prof. Sadhan K. Ghosh**

**(Description– Date– Venue)**

Chaired the Technical Session in the Thirty First International Conference on Solid Waste Technology and Management, Philadelphia, Widener University, USA held during April 15-18, 2016  
–April 17, 2016–The Warwick Hotel, Philadelphia,**USA**

Chaired the Special Technical Session on “Biomass Gasification” in the 4<sup>th</sup> 3RINCs, 4th International Conference on Materials Cycles and ....., held during March 8-10, 2017 at Indian Habitat Centre, New Delhi, India supported by Korean Society of Waste Management and ISWMAW.– March 9, 2017 – at Indian Habitat Centre, New Delhi,

Chaired the Technical Session in the Waste Safe 2017, 4<sup>th</sup> International Conference on Waste Management in South Asian Countries, held during February 25-27, 2017 at Khulna University of Engineering and Technology, Khulna, Bangladesh.– February 27, 2017– KUET, Bangladesh

Chaired Technical Session in the China, Basel Convention Regional Centre for Asia and the Pacific, Beijing,– October 23, 2016– Tsinghua University, China

Chaired and act as the Facilitator/Moderator for the open discussion in the Country Presentations on Afghanistan, Cambodia, Lao PDR, the Republic of Korea, Niue, Vanuatu, Tuvalu in the “7th Regional 3R forum in Asia and the Pacific”, 2-4 November 2016, Adelaide Convention Centre, Adelaide, Australia, Theme, “Advancing 3R and Resource Efficiency, for the 2030 Agenda for Sustainable Development”.– 3, November 2016– International Convention Centre, Adelaide, South Australia

Chaired Technical session in 6<sup>th</sup> International Conference on SWM held at Jadavpur University, by the CQMS, JU, IISc Bangalore, IIT Kgp, TERI & International Society of Waste Management, Air and Water (ISWMAW) – on 25<sup>th</sup> November 2015 – Gandhi Bhaban, Jadavpur University

Chaired the Keynote Session in the International Conference on Waste Management in Hefei University, Hefei, China, during May 18-19, 2016.–May 18, 2016– Hefei University, Hefei, China,

Chaired the Technical Session in the 32<sup>nd</sup> International Conference on Solid Waste Technology and Management, Widener University, USA during March 19-22, 2017.–March 21, 2016  
– The Warwick Hotel, Philadelphia,**USA**

Chaired the CRIC meeting (Consortium of Researchers in International Collaboration) attended by 21 countries. – March 20, 2016 – The Warwick Hotel, Philadelphia,**USA**

**Conference Attended by Prof Sadhan K Ghosh**

1. International Conference on Waste Management in Hefei University, Hefei, China, during May 18-19, 2016
2. UKIERI Seminar on “Low Carbon SMEs through Green and Lean Manufacturing” at Aston University, UK June 21, 2016.
3. International Conference in Monash School of Management, Monash University, Prato, Florence, Italy during June 24-25, 2016.
4. “World Sustainable Development Summit” on October 5 - 8, 2016 at Biggyan Bhawan, New Delhi to deliver on EU–India collabor
5. 11<sup>th</sup> International Conference on Waste Management and Technology at Beijing, China during October 21-24, 2016 by Basel Convention Regional Centre for Asia and the Pacific, Tshinhua University, Beijing.

6. 1<sup>st</sup> ASEAN Conference on Innovation at Lao Plaza Hotel, Vientien, Laos, during October 25-26, 2016 by National University Laos and Aston University, UK.
7. 6<sup>th</sup> International Conference on Solid Waste Management, 6<sup>th</sup> IconSWM 2016 at Jadavpur University, India, by International Society of Waste Management, Air and Water (ISWMAW), CQMS, Jadavpur University, TERI, IIT Kgp., IISc Bangalore and .
8. 3R Forum on Asia Pacific organized by UNCRD and Govt of Australia, during November 2-4, 2016 at Adelaide Convention Centre, Adelaide, SA, Australia.
9. 4<sup>th</sup> 3R International Scientific Conference on Material Cycles and Waste Management (4<sup>th</sup> 3rd 3RINCs), during March 8-10, 2017 at India Habitat Centre, New Delhi, India by Material Cycles and Waste Management in Asian countries, CSIR-IIP Dehradun, ISWMAW, India and KSWM, S. Korea and IIT Delhi.
10. USA, Invited to deliver The opening Plenary speech in Philadelphia, USA on “3R and Circular Economy in Waste Management”, in the Thirty Second International Conference on Solid Waste Technology and Management, Philadelphia, Widener University, USA to be held during March 19-22, 2016.

**Seminar / Conference / Symposium Organized by Prof Sadhan K Ghosh**

1. 6<sup>th</sup> International Conference on Solid Waste Management (6<sup>th</sup> IconSWM 2016) held at Jadavpur University in collaboration with CQMS, JU; IISc, IIT Kgp, TERI, CRIC and ISWMAW and other industries during Nov 24-26, 2016 attended by 557 delegates from 27 countries presented 240 papers organized as the Chair.
2. Indo-Thai-UK Seminar on Supply Chain Sustainability in SMEs in India, Thailand and the UK during February 1-3, 2016 at Jadavpur University.
3. UKIERI Seminar on :How to write research articles” on July 10, 2016 at Jadavpur University.
4. India- Taiwan Service Learning Worksho, attended by the teachers and student from Taiwan, Hong Kong, and India on 20<sup>th</sup> July 2016 at Jadavpur University.
5. 4<sup>th</sup> 3R International Scientific Conference ( 4<sup>th</sup> 3RINCs) by the International Committee on Material Cycles and Waste Management to be held in New Delhi in March 2017 as the Organising Chairman of the.
6. Training workshop conducted at CQMS,JU under research project – “Waste Management - A Municipal level study in West Bengal for assessing 3R Concept implementation” held on 29<sup>th</sup> March 2017 at the Seminar Room, M E Dept, JU.

**Books / Monograph etc. Published**

**Edited Volume as Chief Editor by Prof Sadhan K Ghosh**

1. Editor-in-Chief: Procedia Environmental Sciences, “**Waste Management & Resource Utilisation**” published on 4<sup>th</sup> August 2016 – Edited the Proceedings of 5<sup>th</sup> International Conference on Solid Waste Management, in 2015 published by Elsevier. <http://www.sciencedirect.com/science/journal/18780296/35>.
2. **Associate Editor Selected of Special Issue** : International Journal of Materials Cycle and Waste Management, Member Technical Committee of 4<sup>th</sup> 3RINCs.



3. Editor: "**Waste Management & Resource Utilisation**" the Proceedings of 6<sup>th</sup> International Conference on Solid Waste Management, in November 2016.
4. Editor elect. : Book, "**Waste Management & Resource Utilisation**" the to be published by Springer Publisher.

### Publications by Prof Sadhan K Ghosh

#### International Journal Publication During 2016-17

1. **Ghosh, S. K.**, Debnath, B., Baidya, R., De, D., Li, J., Ghosh, S. K., Zheng, L., Awasthi, A.K., Liubarskaia, M.A., Ogola, J.S. & Tavares, A. N. (2016). Waste electrical and electronic equipment management and Basel Convention compliance in Brazil, Russia, India, China and South Africa (BRICS) nations. *Waste Management & Research*, 34(8), 693-707. (Impact Factor: 1.9) (**Editor's Choice Paper for August 2016**).
2. Amit K. Chattopadhyay, Prasanta K. Dey, **Sadhan K. Ghosh**, (2017). Dynamics of spatial heterogeneity in a landfill with interacting phase densities – A stochastic analysis, *International Journal of Applied Mathematical Modelling*. *Applied Mathematical Modelling*, <https://doi.org/10.1016/j.apm.2016.08.026>; Volume 41, January 2017, Pages 350-358.
3. Baidya, R., **Ghosh, S.K.**, Parlikar, U.V, (2017), Sustainability of Cement Kiln Co-Processing of Wastes in India: A Pilot Study, *Environmental Technology*, 1-10. DOI: <http://dx.doi.org/10.1080/09593330.2017.1293738>.
4. Rahul Baidya, Prasanta Dey, **Sadhan Ghosh**, (2016). Konstantinos Petridis, Strategic maintenance technique selection using combined quality function deployment, the analytic hierarchy process and the benefit of doubt approach, *Int Journal of Adv Manufacturing Technology*, DOI 10.1007/s00170-016-9540-1.(2016).
5. Asit Aich, **Sadhan Kumar Ghosh**, (2016). Organic fraction of municipal solid waste – a valuable source of green energy in India , *International Journal of Energy Sector Management*, Vol. 10 No. 4, 2016, p. 000 © Emerald Group Publishing Limited, 1750-6220, DOI 10.1108/IJESM-06-2015-0001, ISSN: 1750-6220.
6. Debnath, B., Raychaudhuri, A., & **Ghosh, S. K.** (2016). Analysis of Grey Water Recycling Technologies using Analytical Hierarchical Process. *Journal of Solid Waste Technology & Management*, 42(1), 559-568. [via The 31<sup>st</sup> International Conference on Solid Waste Technology and Management 2016, 3 – 6<sup>TH</sup> April 2016]
7. Debnath, B., Chowdhury, R., & **Ghosh, S. K.** (2016). Bio-metallurgical recovery of Gold from Printed Circuit Boards (PCB): A Review. *Journal of Solid Waste Technology & Management*, 42(1), 760-770. [via The 31<sup>st</sup> International Conference on Solid Waste Technology and Management 2016, 3 – 6<sup>TH</sup> April 2016]
8. Halder, H. S., Chatterjee, S., Debnath, B., Ghosh, S. K., **Ghosh, S. K.** (2016). Post Earthquake C&D Waste Management-Case studies of Nepal. *Journal of Solid Waste Technology & Management*, 42(1), 486-498. [via The 31<sup>st</sup> International Conference on Solid Waste Technology and Management 2016, 3 – 6<sup>TH</sup> April 2016]
9. **Ghosh, S. K.**, Roychoudhuri, R., Wath, S. B., Debnath, B., Jayakumar, S., & Maloo, A. (2016). Waste Management in India: E-waste recycling & Bio-methanation-Case studies. *Journal of Solid Waste Technology & Management*, 42(1), 748-759. [via The 31<sup>st</sup> International Conference on Solid Waste Technology and Management 2016, 3 – 6<sup>TH</sup> April 2016].



10. Baidya, R., Dey, P. K., **Ghosh, S. K.**, & Petridis, K. (2016). Strategic maintenance technique selection using combined quality function deployment, the analytic hierarchy process and the benefit of doubt approach. *The International Journal of Advanced Manufacturing Technology*, 1-14. DOI: 10.1007/s00170-016-9540-1
11. Baidya, R., **Ghosh, S. K.**, & Parlikar, U. V. (2016). Co-processing of industrial waste in Cement Kiln—A Robust system for material and energy recovery. *Procedia Environmental Sciences*, 31, 309-317, DOI: <https://doi.org/10.1016/j.proenv.2016.02.041>
12. Baidya, R., Debnath, B., De, D., & **Ghosh, S. K.** (2016). Sustainability of modern scientific waste compacting stations in the city of Kolkata. *Procedia Environmental Sciences*, 31, 520-529, DOI: <https://doi.org/10.1016/j.proenv.2016.02.072>
13. Parlikar, U., Bundela, P. S., Baidya, R., Ghosh, S. K., **Ghosh, S. K.** (2016). Effect of Variation in the Chemical Constituents of Wastes on the Co-processing Performance of the Cement Kilns. *Procedia Environmental Sciences*, 35, 506-512. DOI: <https://doi.org/10.1016/j.proenv.2016.07.035>
14. Baidya, R., **Ghosh, S. K.** (2016). Utilization of Discarded Waste in a Composting Plant for Energy Recovery by Plasma Gasification—a Proposed Model. *Journal of Solid Waste Technology & Management*, 42(1), 806-813.
15. Baidya, R., **Ghosh, S. K.** (2016). Plasma Gasification Technology for Energy Recovery from Waste. *Journal of Solid Waste Technology & Management*, 42(1), 794-805.
16. Debnath B., Chowdhury., R., **Ghosh S. K.**, “Sustainability of Metal Recovery from E-waste.” *Frontiers of Environmental Science and Engineering (Impact Factor: 1.799) Status: Under Review.*

#### **Publication in International Conference Proceedings**

1. Sadhan Kumar Ghosh, (2016). Potential of economic utilization of biomass waste in India - Implications towards SDGs, (Short Background Paper for Plenary Session 3 of the Programme), Seventh Regional 3R Forum in Asia and the Pacific. 2-4 November, 2016, Adelaide, SA, Australia by UNCRD, Japan.
2. Sadhan Kumar Ghosh, (2016). Sustainable SWM in Developing Countries Focusing on Faster Growing Economies, India and China, International Conference on Solid Waste Management, 5IconSWM 2015, *Procedia Environmental Sciences*, 35 ( 2016 ),p176 – 184.
3. Sadhan K Ghosh, H.S. Haldar, S. Chatterjee, P. Ghosh (2016). An Optimization Model on Construction and Demolition Waste Quantification from Building, International Conference on Solid Waste Management, 5IconSWM 2015; *Procedia Environmental Sciences* 35 (2016), 279 – 288, 1878-0296. DOI: 10.1016/j.proenv.2016.07.008;
4. Aich, A., Sadhan K Ghosh (2016), Application of SWOT Analysis for the Selection of Technology for Processing and Disposal of MSW, International Conference on Solid Waste Management, 5IconSWM 2015; *Procedia Environmental Sciences*,35 ( 2016),209–228. 1878-0296.
5. Sadhan Kumar Ghosh, (2016), Swachhaa Bharat Mission (SBM) – A Paradigm Shift in Waste Management and Cleanliness in India, *Procedia Environmental Sciences*, 35 (2016)15 – 27; 1878-0296. DOI: 10.1016/j.proenv.2016.07.008;
6. Sadhan Kumar Ghosh, (2016), Biomass & Bio-waste Supply Chain Sustainability for Bio-energy and Bio-fuel Production, The Tenth International Conference on Waste Management and Technology (ICWMT), *Procedia Environmental Sciences*, 31 (2016 ), 31 – 39.

7. Debnath., B., **Ghosh, S.K.** (2017). *E-waste Recycling in India: A Case Study*. The 32<sup>nd</sup> International Conference on Solid Waste Technology and Management (ICSW 2017), Philadelphia, PA, USA, 19-22 March, 2017, pp.223 – 232.
8. Ipsita Saha, Sadhan K. Ghosh, Amit Kundu, (2017), Novel Approach for Laptop and Cell Phone Waste Management Using Cloud Based Data Storage Systems, The 32<sup>nd</sup> International Conference on Solid Waste Technology and Management (ICSW 2017), Philadelphia, PA, USA, 19-22 March, 2017.
9. Debnath., B., Roychoudhuri., R., & **Ghosh, S.K.** (2017). *Sustainability Analysis of Green Computing Alternatives using AHP and QFD*. The 32<sup>nd</sup> International Conference on Solid Waste Technology and Management (ICSW 2017), Philadelphia, PA, USA, 19-22 March, 2017, pp.450 – 459.
10. Debnath., B., Chowdhury., R., & **Ghosh, S. K.** (2017). *Studies on Resource Recovery from E-waste via Thermochemical Route*. 4<sup>th</sup> 3R International Scientific Conference on Material Cycles and Waste Management, India Habitat Centre, New Delhi, India, 8-10 March, 2017. (**Extended Abstract only**).
11. Debnath., B., Chowdhury., R. **Ghosh, S. K.** (2016). *An Analysis of E-waste Recycling Technologies from the Chemical Engineering Perspective..* 6<sup>th</sup> International Conference on Solid Waste Management (6<sup>th</sup> IconSWM), pp. 1189 – 1195, Jadavpur University, Kolkata, India, 24-26 November, 2016. (**Publication in Springer Book Chapter Awaited**).
12. Roychoudhuri., R., Debnath., B., De., D., Albores., P., Banerjee., C., **Ghosh, S. K.** (2016). *Estimation of E-waste generation – A lifecycle based approach*. 6<sup>th</sup> International Conference on Solid Waste Management (6<sup>th</sup> IconSWM), pp. 1129-1124, Jadavpur University, Kolkata, India, 24-26 November, 2016. (**Publication in Springer Book Chapter Awaited**).
13. Baidya., R., Debnath., B., **Ghosh, S. K.** (2016). *Analysis of E-waste supply chain framework in India using Analytical Hierarchy Process*. 6<sup>th</sup> International Conference on Solid Waste Management (6<sup>th</sup> IconSWM), pp. 1181-1188, Jadavpur University, Kolkata, India, 24-26 November, 2016. (**Publication in Springer Book Chapter Awaited**)
14. Mukherjee., A., Debnath., B., **Ghosh, S. K.** (2016). *Carbon Nanotubes as a Resourceful product Derived from Waste Plastic – A Review*. 6<sup>th</sup> International Conference on Solid Waste Management (6<sup>th</sup> IconSWM), pp. 1234 – 1247, Jadavpur University, Kolkata, India, 24-26 November, 2016. (**Publication in Springer Book Chapter Awaited**)
15. Debnath B., Chowdhury., R., and **Ghosh S. K.**, *Sustainability of Metal Recovery from E-waste*. The Eleventh International Conference on Waste Management and Technology (ICWMT 10), China, October, 2016.
16. Debnath B., Roychoudhuri., R., and **Ghosh S. K.**, *Risk Assessment of WEEE over the whole Lifespan of EEE using ISO 9001:2015 Standard*. The Eleventh International Conference on Waste Management and Technology (ICWMT 10), China, October, 2016.
17. Debnath, B., Roychoudhuri, R., **Ghosh, S. K.** (2016). *E-Waste Management–A Potential Route to Green Computing*. *Procedia Environmental Sciences*, 35, 669-675. [via 5<sup>th</sup> International Conference on Solid Waste management (5<sup>th</sup> IconSWM), IISC Bangalore, India, 24-27 November, 2015] (**Excellent Paper Award**).

18. Mukherjee, A., Debnath, B., **Ghosh, S. K.** (2016). A Review on Technologies of Removal of Dioxins and Furans from Incinerator Flue Gas. *Procedia Environmental Sciences*, 35, 528-540. [via 5<sup>th</sup> International Conference on Solid Waste management (5<sup>th</sup> IconSWM), IISC Bangalore, India, 24-27 November, 2015].
19. Payel Ghosh, **Sadhan Kumar Ghosh**, (2016). Cost Analysis of Municipal Solid Waste Management Using Waste Compacting Stations: A Case Study, Proceeding of 6th International Conference on Solid Waste Management, November 25-27, 2016, Kolkata, India. [ISBN 81-86862-56-0].
20. Payel Ghosh, **Sadhan Kumar Ghosh**, (2016). Construction and Demolition Waste Management using Fuzzy Goal Programming, The Thirty-First International Conference on Solid Waste Technology and Management, April 3- 6, 2016, Philadelphia, PA U.S.A. [ISSN: 1088-1697].
21. Sutripta Sarkar, **Sadhan K Ghosh** (2017). Impact of Composting and Landfill emissions of climate change. The 32nd International Conference on Solid waste Technology and Management Proceedings ( ISSN 1091-8043). pp 469-474.
22. Ankita Das, **Sadhan K Ghosh** (2016). Developing a Decision Support System for Municipal Vacant Land and Waste Management with Optimised Route Technique, Proceedings of the 6th International Conference on Solid Waste Management, November 25-27, 2016, Kolkata, India. [ISBN 81-86862-56-0].
23. **Ghosh S.K.**, Roychoudhuri R., Wath S.B., Debnath B., Jayakumar S., Maloo A., “Waste Management in India: E-waste Recycling & Bi-omethanation - Case Studies.” The Thirty First International Conference on Solid Waste Technology and Management, Philadelphia, USA. April 2016.
24. **Sadhan Kumar Ghosh**, Joonheon Lee, Achi Chibueze Godwin, Adekunle Oke, Reem Al-Rawi , Mervat El-Hoz, “Waste Management in USA through Case Studies: E-waste Recycling and Waste to Energy “, The Thirty First International Conference on Solid Waste Technology and Management, Philadelphia, USA. April 2016.
25. Raychaudhuri, A., **Ghosh, S. K.** (2016). Lignocellulosic Biomass Supply Chain for Bioethanol Production. *Journal of Solid Waste Technology & Management*, 42(1).
26. El-Hoz, M., Aremu, A. S., Roychoudhury, A., Ojowuro, O. M., Ugunbiyi, A., **Ghosh, S. K.** (2016). Strategies for Reducing Municipal Solid Waste in Lebanon, Nigeria and India. *Journal of Solid Waste Technology & Management*, 42(1).
27. Das, M., **Ghosh, S. K.** (2016). Comparative Study of Whey Utilization in India, New Zealand, and Australia-Identifying Untapped Potential and Means of Utilization. *Journal of Solid Waste Technology & Management*, 42(1).

#### **Book Chapters by Prof Sadhan Kumar Ghosh in 2016-17**

1. Sadhan Kumar Ghosh. Sannidhya Kumar Ghosh, (August 2016), Construct and Demolition Waste, Chapter 18, Book : Sustainable Solid Waste Management, American Society of Civil Engineers (ASCE), Editors Prof J. C. Wong et al, Hong Kong. DOI: 10.1061/9780784414101.ch16, pp.511-547.

2. Debnath, R. Baidya, N. T. Biswas, R. Kundu and **S. K. Ghosh**, *E-waste recycling as criteria for Green computing approach: Analysis by QFD tool*, Chapter 17, K. Maharatna et al. (eds.), Computational Advancement in Communication Circuits and Systems, Lecture Notes in Electrical Engineering 335. DOI 10.1007/978-81-322-2274-3\_17.

#### **Posters in Conference Proceedings & Other Competitions**

1. Biswajit Debnath, Aryama Raychaudhuri, Sadhan Kumar Ghosh, “Hydrogen Generation from Biorefinery Waste Streams: Recent Trends and Advancements”; Asia-Pacific Conference on Biotechnology Waste Conversion 2016, pp. 213, Hong Kong Baptist University, Hong Kong SAR, P.R. China, 5-8th December, 2016.
2. Biswajit Debnath, Aryama Raychaudhuri, Sadhan Kumar Ghosh, “Sustainability of Hydrogen generation from Biomass and waste from Biorefineries”; ICT/BIO Asia workshop 2016, University of Malaya, Malaysia, 30-31th May, 2016.

#### **Outstanding Achievement of Prof Sadhan Kumar Ghosh in 2016-17:**

1. **Host Scientist for Post Doc Research** : Dr Rabetokotany Rarivoson Nantenaina, Mention Ingénierie Pétrolière Ecole Supérieure Polytechnique, Université d’Antananarivo, BP 1500 Ambohitsaina, Antananarivo 101, MADAGASCAR worked for post doc research for a month under the guidance of Prof Sadhan Kumar Ghosh under C V Raman International Fellowship for African Researchers 2014 programme in January – February 2017.
2. **Editor’s Choice Paper for August 2016** : Paper “Waste electrical and electronic equipment management and Basel Convention compliance in Brazil, Russia, India, China and South Africa (BRICS) nations” was selected as the Editor’s Choice Paper for August 2016 by *Waste Management & Research*, 34(8), 693-707.
3. **International Expert of UNCRD** (United Nations Centre for Regional Development) : Acted as the International Expert of UNCRD for preparation of the country document on the “Potential of economic utilization of biomass waste in India~Implications towards SDGs’ and as the Facilitated /Moderated for the open discussion in the Country Presentations on Afghanistan, Cambodia, Lao PDR, the Republic of Korea, Niue, Vanuatu, Tuvalu in the “7th Regional 3R forum in Asia and the Pacific”, 2-4 November 2016, Adelaide Convention Centre, Adelaide, Australia.
4. **International Expert of APO, Japan** (Asian Productivity Council, Japan) : Acted as the International Expert of APO at the CPC (China Productivity Council, Taiwan) in the Research on GP for the Base of the Pyramid for Sustainable Development in APO Member Countries with Coordination meeting during 3-5 May, 2016 at Taipei, ROC for one year , May 2016 – April 2017.
5. **Invited & delivered the Opening Plenary Speech in Philadelphia, USA in 32<sup>nd</sup>** International Conference on Solid Waste Technology and Management, on “3R and Circular Economy in Waste Management”, by Widener University, USA held during March 19-22, 2017.
6. **Invited to deliver The opening Plenary speech in Philadelphia, USA on** “Global Circular Economy in Waste Management in Asia”, in the Thirty First International Conference on Solid Waste Technology and Management, Philadelphia, Widener University, USA to be held in April 2016.



7. **Invited to act as the Organising Chairman** of the 4<sup>th</sup> 3R International Scientific Conference ( 4<sup>th</sup> 3RINCs) by the International Committee on Material Cycles and Waste Management to be held in New Delhi in March 2017.
8. **Selected as the Chairman**, 7<sup>th</sup> International Conference on Solid Waste Management, 7<sup>th</sup> IconSWM 2017 to be held at PJTSA University, Rajendranagar, Hyderabad, India to be held during December 15-17, 2017.
9. **Collaboration with Tsinghua University, Beijing, and Hefei University, Hefei, China** : Extended the additional research collaboration of the existing one between Prof. Sadhan Kumar Ghosh of *mechanical engineering department* and Prof Jinhui Li, of the *department of environment engineering* at Tsinghua University, and Basel Convention Resource Centre, Beijing, China for next one year during October 22-24, 2016 at Beijing, China and Prof Wu Ke and Mr Honglei of Hefei University, Hefei, China in May 2016.
10. **Collaboration initiation with the University of Danang, Vietnam and National University of Laos, Vientiane** : Collaborative meeting initiated with the researchers of University of Danang, Vietnam and National University of Laos, Vientiane for joint research and publication between Prof. Sadhan Kumar Ghosh of *mechanical engineering department* and *faculty members of different departments* of both Universities held during October 25-26, 2016 at Laos, Vientiane.

#### **Activities by Researchers:**

##### **Research Activities of PhD Scholar Sri Rahul Baidya**

##### **Conferences /Workshops Attended :**

1. 6<sup>th</sup> International Conference on Solid Waste Management (6<sup>th</sup> IconSWM), November 24-27, 2016, Kolkata, India.
2. Asia-Pacific Conference on Biotechnology Waste Conversion 2016, pp. 213, Hong Kong Baptist University, Hong Kong SAR, P.R. China, 5-8<sup>th</sup> December, 2016.
3. 4<sup>th</sup> 3R International Scientific Conference on Material Cycles and Waste Management, India Habitat Centre, New Delhi, India, 8-10 March, 2017.
4. 2<sup>nd</sup> International Workshop on Waste Management and the 3Rs “*Waste management and the 3Rs for regional Development*” organized by Asia Pacific Network (APN), at New Delhi, India on 10<sup>th</sup> March 2017.
5. Workshop on Quantitative Decision Modeling organized by Department Of Industrial & Systems Engineering, Indian Institute of Technology Kharagpur, 4-8<sup>th</sup> July 2016
6. ICT/BIO Asia 2016, University of Malaya, Malaysia, 30-31<sup>th</sup> May, 2016.
7. 6<sup>th</sup> International Conference on Solid Waste Management (6<sup>th</sup> IconSWM), November 24-27, 2016, Kolkata, India.
8. Asia-Pacific Conference on Biotechnology Waste Conversion 2016, pp. 213, Hong Kong Baptist University, Hong Kong SAR, P.R. China, 5-8<sup>th</sup> December, 2016.
9. 4<sup>th</sup> 3R International Scientific Conference on Material Cycles and Waste Management, India Habitat Centre, New Delhi, India, 8-10 March, 2017.
10. UKIERI Workshop on “How to write Research Articles” held in M E Department, Jadavpur University , 20<sup>th</sup> July 2016.

##### **Research Activities of PhD Scholar Sri Biswajit Debnath**

**Workshops / Seminar Attended:**

1. 2<sup>nd</sup> International Workshop on Waste Management and the 3Rs “**Waste management and the 3Rs for regional Development**” organized by Asia Pacific Network (APN), at New Delhi, India on 10<sup>th</sup> March 2017.
2. GIAN (Global Initiative of Academic Networks) course on **Solid Waste Management – Feasibility of Technology Transfer**, Foreign Faculty: Dr. Sunil Heart from Griffith University, Australia, during 10 – 20<sup>th</sup> February, 2017, at Sri Jayachamarajendra College of Engineering, Mysore, India.
3. TEQIP II Sponsored Workshop Under Advanced Pedagogy on **Recent Advancement in Energy harvesting and Water Treatment Technologies**. June 13 – 17, 2016, Chemical Engineering Department, Main Campus, Jadavpur University, 2016.
4. Attended Round Table Discussion on **GHG Platform – India: Waste and industrial Emissions** on 3<sup>rd</sup> February, 2017 organized by ICLEI at Hotel Kenilworth, Kolkata, India.
5. Published Technical Abstract Entitled **Analysis of Treatment Technologies of MSW in India: Current Trends and Case Studies**, in proceedings of INNOVA 2017 (Technical Paper Presentation Event organized by IICHE Kolkata Students Chapter, Previously a Magazine only), on 25<sup>th</sup> March 2017.
6. Presented Technical Paper Entitled **Waste to Energy potential using Water Hyacinth in Water Bodies of Jadavpur University**, during INNOVA 2016 (Technical Paper Presentation Event organized by IICHE Kolkata Students Chapter, Previously a Magazine only), March 2016.
7. **Webinars on “CCS in the Pulp and Paper Industry”**, organized by IEAGHG on 25<sup>th</sup> January, 2017.
8. **Webinars on Managing Global Electronic Asset**”, organized by SIMS Recycling Solutions on 15<sup>th</sup> November, 2016.
9. UKIERI Workshop on “How to write Research Articles” held in M E Department, Jadavpur University , 20<sup>th</sup> July 2016.

**Certificate Courses:**

Online Certificate Course on **Life Cycle Assessment** from the NPTEL (National Program on Technology Enhanced Learning) Platform. Exam written on **26<sup>th</sup> March, 2017**. Scored **83%**.

**Industrial Visits:**

1. GEE Engineering Ltd., Dhulagarh, on 14<sup>th</sup> July, 2016.
2. I&B Engineers Private Limited, (Baltikuri and Jalan Complex), on 14<sup>th</sup> July, 2016.
3. Biogas and Vermi-composting Facility at Nimpith, Joynagar, on 24<sup>th</sup> January, 2017.
4. E-Waste & Second hand material fair (VANGA MELA) on 24<sup>th</sup> January, 2017.
5. IL & FS Environment (Composting Plant, Mysore), on 18<sup>th</sup> February, 2017.
6. Sanitary Landfill Site, Mysore on 18<sup>th</sup> February, 2017.
7. Chamundi Hill Biogas Plant Operating, Mysore on 20<sup>th</sup> February, 2017.
8. Composting Plant and SWM facility at Uttarpara Municipality on 5<sup>th</sup> March, 2017.
9. Composting Plant and Sanitary Landfill site at Baidyabati Municipality on 5<sup>th</sup> March, 2017.
10. Pyrolysis and gasification pilot plants at TERI, Delhi on 10<sup>th</sup> March, 2017.



**Invited and Dissemination Lectures:**

1. **Plastic Waste Management in India** during Roundtable Meet – ‘**Kolkata Hotspots**’, 22<sup>nd</sup> March, 2016, Organized by Toxics Link at The Golden Park Hotel, Kolkata, India.
2. **E-waste recycling: Challenges and Opportunities** during GIAN course on **Solid Waste Management – Feasibility of Technology Transfer**, SJCE, Mysore, February 2017, Kolkata, India.

**Recent Achievement in 2017 by Prof Sadhan Kumar Ghosh**

1. **Expert of United Nations Centre for Regional Development (UNCRD)** : Prof Sadhan Kumar Ghosh of mechanical engineering department Invited and joined as the member of the Drafting Committee of State of the 3Rs in Asia and the Pacific to its 6th meeting held from 22 to 23 June 2017 in Tokyo, Japan, in collaboration with the Institute for Global Environmental Strategies (IGES) and supported by the Ministry of the Environment Japan.
2. **Chair elect 2017** : Prof Sadhan Kumar Ghosh of mechanical engineering department has been elected the Chairman of the 7th International Conference on Solid Waste Management, 7th IconSWM to be held at Hyderabad during December 15-17, 2017 as the pre event of the 8th Regional 3R Forum to be organised by the MOEF CC & MoUD, Govt. of India and UNCRD and Ministry of Environment Japan.
3. **Initiation of “Model Source Segregation System of Waste 2017” at Jadavpur University** : The university wide “Model Source Segregation System of Waste 2017” has been initiated in Jadavpur University by Prof Sadhan Kumar Ghosh of mechanical engineering department to comply with the SWM Rules 2016 in Jadavpur University Campus on the World Environment Day, the 5th June.
4. **Consultant to UNDESA, Department of Sustainable Development, UNCRD, Japan, 2017** : UNCRD, UNDESA/DSD engaged Prof Sadhan Kumar Ghosh of mechanical engineering department, as the Consultant, to develop a country report on current status of “3R policy implementation in India” related to Project “State of the 3Rs in Asia and the Pacific” and to contribute to the 8th Regional 3Rs Forum in Asia and the Pacific.
5. **Expert of APO, Japan 2017** : Prof Sadhan Kumar Ghosh of mechanical engineering department developed the India Report within the international collaborative research project on “Green Productivity for the Base of the Pyramid for Sustainable Development in APO Member Countries” funded by Asian Productivity Organisation, Japan and China Productivity Council, Taiwan, ROC.

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**SIR C.V.RAMAN CENTRE FOR PHYSICS AND MUSIC**

[Department of Physics]

Int. : 2457-2352

Coordinator : Prof Argha Deb

E-mail : cvrcpm.centre@jadavpuruniversity.in

**1. B. Number of Faculty Members : 4 (Four)**

**2. A. Area of Research Activities :**

- Effect of music and noise on autonomous nervous system
- A neuro-physical study on Music cognition and the brain
- Study of the melodic, rhythmic and emotional characteristics of music
- Studies of stochastic, chaotic and fractal behavior of speech and music signals
- Study on the phonetic quality and articulation patterns in Indian music visa-a-vi speech
- Study on the alankars in Indian classical music, namely, Taan, Meend, etc.
- Study on the Musical scales, consonance and dissonance, shrutis and the intervals used in the Indian classical music performance
- Study on Nasality in speech and music, the acoustic and perceptual cues of nasality, the degree of nasality and effect of nasality
- Study on the improvisation in different forms of Indian music
- Study on the Rhythm, tempo and styles in Indian music
- Analysis of different nuances of Indian music for finding out the features for estimating the physical correlates of musical terminologies
- Feature extraction and study on the Timbre and prosodic characteristics of vocal and instrumental music.
- Modeling of emotion based on Hilbert space.
- Music, meditation and consciousness.

**2. B. Major Research Projects :**

Department of Science and Technology, Govt. of West Bengal sanctioned a R & D project “**Neuro-cognitive physics approach to study music induced emotion using bio-sensors**”.

**Principal Investigator:** Prof. Dipak Ghosh, Emeritus Professor, Sir C.V. Raman Centre for Physics and Music, Jadavpur University

**Co-Principal Investigator:** Prof. Kumardeb Banerjee, Professor, Department of Instrumentation and Electronics Engineering, Jadavpur University

**Project Duration: 2 years**

**3. A. Invited Lectures Delivered/ Session Chaired :**

- Invited lectures were delivered by Prof. Dipak Ghosh, Emeritus Professor of the Centre in and around Kolkata on Emotions in music and its processing in the brain.
- Shankha Sanyal, Research Fellow of the Centre delivered an invited lecture on “Musicality Of Human Brain through Fractal Microscope: A Bridge between Physics, Music & Mind” at the Ninth Science Communicators’ Meet held on 11th February, 2017 at Bose Institute, Kolkata

**3. B. Seminar/Workshop/Conference/Symposium Attended:**

1. Shankha Sanyal, Archi Banerjee & Souparno Roy, Research Fellows of the Centre presented 3 papers in the 1st International Conference on Creativity and Cognition in Art and Design held at NIMHANS, Bangalore; 19-21<sup>st</sup> January 2017.
2. Archi Banerjee, Research Fellow of the Centre presented a Paper in *IEEE International Conference on Next Generation Computing Technologies 2016 (2016 NGCT)* held at Centre for Information Technology University of Petroleum and Energy Studies, Dehradun during 14-16 October 2016.
3. Shankha Sanyal, Research Fellow of the Centre presented a Paper in *IEEE International Conference on Signal Processing & Integrated Networks*, **SPIN 2017** held at Amity University, Noida, during 2-3 February 2017
4. Shankha Sanyal, Archi Banerjee, Souparno Roy, Kaushik Banerjee, Anirban Patranabis, Chandrima Roy, members of the Centre presented 8 papers in the *International Symposium FRSM-2016* held at North Orissa University, Baripada, Orissa during 11-12 November 2016.

**3. C. Seminar/Workshop/Conference/Symposium Organized:**

International Symposium on “Frontiers of Research on Speech Music: FRSM-2016” with special theme “**Machine Intelligence Tools and Techniques for Speech and Music**” was **organised** jointly with North Orissa University, Baripada, Orissa during 11-12 November 2016 at North Orissa University, Baripada, Orissa. The symposium was attended by many scientists and academicians. The proceeding of the symposium was published (printed as well as web version). The research scholars of the centre presented papers in the symposium. Local media gave sufficient coverage about the symposium.

**4. B. Papers Published During the Period :**

**a) Journal Papers:**

1. **A Study On Improvisation In A Musical Performance Using Multifractal Detrended Cross Correlation Analysis**  
*Physica A(2016)10.1016/j.physa.2016.06.013.*
2. **Musical Improvisation and Brain Correlates: An EEG Based Neurocognitive Study Using Hindustani Music**  
*Journal of Biomusical Engineering 4 (2017): 119. doi:10.4172/2090-2719.1000119*
3. **Universality and Domain Specificity of Emotion-A Quantitative Non Linear EEG Based Approach**  
*Journal of Neurology and Neuroscience 8(2017); 178-195 doi: 10.21767/2171-6625.1000178*

**A. Arxiv Preprint:**

1. **A Non Linear Multifractal Study to Illustrate the Evolution of Tagore Songs Over a Century**  
*arXiv preprint arXiv:1612.00171 (2016).*
2. **Categorization of Stringed Instruments with Multifractal Detrended Fluctuation Analysis** *arXiv preprint arXiv:1601.07709(2016)*
3. **Gestalt Phenomenon in Music? A Neurocognitive Physics Study with EEG**  
*arXiv preprint arXiv:1703.06491 (2017).*

4. **Multifractal Detrended Cross Correlation Analysis A Tool for the Assessment of Raga in Bollywood Music**

*arXiv preprint arXiv:1604.02243 (2016)*

5. **How does the style of singing vary within a gharana? A Non Linear study on lineage in Hindustani Classical Music**

*arXiv preprint arXiv:1604.02250 (2016)*

**B. International Conference/Symposium Proceedings:**

1. **Quantification and Categorization of Emotion using Cross Cultural Music: An EEG Based Fractal Study**

*Proc. of IEEE International Conference on Next Generation Computing Technologies 2016 (2016 NGCT)*

2. **Can Musical Emotion Be Quantified With Neural Jitter Or Shimmer? A Novel EEG Based Study With Hindustani Classical Music**

*Proc. of IEEE "International Conference on Signal Processing & Integrated Networks", SPIN 2017*

3. **Emotion Specification from Musical Stimuli: An EEG Study with AFA and DFA**

*Proc. of IEEE "International Conference on Signal Processing & Integrated Networks", SPIN 2017*

4. **Effect of Pitch and Amplitude Change on the Acoustic Signal Complexity**

*Proc. of International Symposium FRSM-2016, November 11-12, 2016, North Orissa University, Baripada, India*

5. **Timbre space of Esraj: A Comparison with Violin**

*Proc. of International Symposium FRSM-2016, November 11-12, 2016, North Orissa University, Baripada, India; Ird India, ISBN: 978-93-81693-07-03*

6. **Improvisation In Hindustani Vocal Music**

*Proc. of International Symposium FRSM-2016, November 11-12, 2016, North Orissa University, Baripada, India; Ird India, ISBN: 978-93-81693-07-03*

7. **Evolution Of Tagore Songs Over The Century: A Non Linear Multifractal Study**

*Proc. of International Symposium FRSM-2016, November 11-12, 2016, North Orissa University, Baripada, India; Ird India, ISBN: 978-93-81693-07-03*

8. **A Non Linear Approach Towards Automated Emotion Analysis in Hindustani Music**

*Proc. of International Symposium FRSM-2016, November 11-12, 2016, North Orissa University, Baripada, India; Ird India, ISBN: 978-93-81693-07-03*

9. **How Do The Singing Styles Vary Over Generations In Different Gharanas Of Hindustani Classical Music –A Comparative Non Linear Study**

*Proc. of International Symposium FRSM-2016, November 11-12, 2016, North Orissa University, Baripada, India; Ird India, ISBN: 978-93-81693-07-03*

10. **From Recital to Songs – A Case of Phase Transition? A Non Linear Multifractal Study of Tagore's Work**

*Proc. of National Symposium on Acoustics (NSA - 2016), November 17-18, 2016, KIIT College of Engineering, Gurgaon, India*

**11. Gestalt Phenomenon in Music? A Neurocognitive Physics study with EEG**

*Proceedings of 1st International Conference on Creativity and Cognition in Art and Design; 19-21<sup>st</sup> January 2017, NIMHANS, Bangalore; Bloomsbury Publishers ISBN: 978-93-86349-88-0.*

**12. Neural (EEG) response During Creation and Appreciation: A Novel Study with Hindustani Raga Music**

*Proceedings of 1st International Conference on Creativity and Cognition in Art and Design; 19-21<sup>st</sup> January 2017, NIMHANS, Bangalore; Bloomsbury Publishers ISBN: 978-93-86349-88-0.*

**13. Ambiguity Creates: A Quantum Leap Interpretation**

*Proceedings of 1st International Conference on Creativity and Cognition in Art and Design; 19-21<sup>st</sup> January 2017, NIMHANS, Bangalore; Bloomsbury Publishers ISBN: 978-93-86349-88-0.*

**SRI AUROBINDO STUDIES**

[Department of Philosophy]

Int. : 2457-2358

Coordinator : Prof Aparajita Mukhapadhyay

E-mail : sas.centre@jadavpuruniversity.in

Centre for Sri Aurobindo Studies has received the UGC approval for the continuation of the Centre under XII plan under the scheme 'Epoch Making Social Thinkers of India' for the period of 2013 – '14 to 2016 - '17 (No. F6-1/2012 (NFE) dated 11<sup>th</sup> September, 2013).

Centre for Sri Aurobindo Studies, Department of Philosophy, Jadavpur University has started its journey from 2005 with the financial assistance of UGC. Its intention is to understand Sri Aurobindo's spiritual truth which is not limited to the scope of any religious framework. Our modest attempt is to understand the integrality of his philosophy which is expressed in his attempt to combine physical, vital and mental elements into one single reality which is called the *Saccidânanda Brahman*. Its aim is to explore Sri Aurobindo's philosophical thought and to understand its relevance to modern world scenario. His concept of divinity and spirituality inspires us to cross the level of materialism and his yogic experiences teach us how to maintain the mental peace. Our goal is to rejuvenate the richness of Indian culture by his vibrant, systematic and comprehensive justification.

**Lecture by Visiting Faculty:**

**Professor S. E. Bhelke**, Department of philosophy, University of Pune delivered lecture on **Synthesis of Yoga** from 25<sup>th</sup> January 2017 to 3<sup>rd</sup> February 2017 at the Centre for Sri Aurobindo Studies

**Professor Sitangsu Chakraborty**, the Former affiliated visiting scholar of New College, University of Toronto visited Centre for Sri Aurobindo Studies as a visiting faculty from 21<sup>st</sup> February 2017 to 27<sup>th</sup> February 2017. He delivered lectures on **Indian concept of virtues**.

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**Professor Ramkrishna Bhattacharyay** visited Centre for Sri Aurobindo Studies from 23<sup>rd</sup> March 2017 to 28<sup>th</sup> March 2017 as a visiting faculty. He was an Emeritus Fellow in English, University Grants Commission and Visiting Professor, Indian Council of Philosophical Research. He delivered lectures on **Indian and Western Materialism**.

**Sri Aurobindo Memorial Lecture:**

Like every year we have organized Sri Aurobindo Memorial lecture on 29<sup>th</sup> August, 2016 to celebrate the auspicious occasion of his birthday. This year the Thirty third Memorial lecture was delivered by **Dr. Nirmalya Mukherjee** on **Sri Aurobindo's Departure to Pondicherry – Personal Dilemma or Cosmic Interiorization**. Dr. Mukherjee has completed his Ph. D. on Sri Aurobindo's political thought and by profession he is the Chief Economic and Corporate Adviser, Bengal Chamber of Commerce and Industry.

**Special Lecture:**

**Professor Debashish Banerji**, Haridas Chaudhuri Professor of Indian Philosophies and Cultures and Doshi Professor of Asian Art at the California Institute of Integral Studies delivered talk on **The Modern Knowledge Academy, Vedantic Education and Sri Aurobindo's Integral Education** on 8<sup>th</sup> June, 2016.

**Seminar:**

Two days National seminar–**Different interpretations of Gita**–27<sup>th</sup> and 28<sup>th</sup> January 2017  
Two days National seminar–**Philosophy and Culture**–21<sup>st</sup> and 22<sup>nd</sup> March 2017

**Study Group:**

Centre conducts a regular study group to explore the philosophy of Sri Aurobindo. Its aim is also to increase the interest of students and scholars to know Sri Aurobindo's thought. Our faculty, teachers from other colleges and universities, students and scholars participate in this group.

**STUDIES IN AFRICAN LITERATURES AND CULTURES**

[Faculty of Arts]

Int. : 2457-2149

Coordinators: Ipshita Chanda / Nilanjana Gupta

E-mail : alc.centre@jadavpuruniversity.in

**Brief Profile:**

**Year of Establishment:** 2006

**Department to which this Centre is Attached:** Attached to the Faculty of Arts, housed in the Department of Comparative Literature.

**Teaching Posts:** 2 (part time guest faculty)



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**Courses Offered:**

- The Centre is housed in the Department of Comparative Literature and offers a course in Literatures of Africa as an optional in the third and fourth semesters of the MA programme.
- **Four Extra Departmental courses** in the cultures of the African Diaspora, including North America, Latin America and the Caribbeans, entitled **African Cultures across the World** to Undergraduate students of the Arts Faculty. In the four semesters, the centre offers courses in Music, Poetry, Drama and Narrative respectively.
- Syllabi for **two more Extra Departmental courses** in African Cultures across the World have been approved by the academic committee of the Centre for Studies in African Literatures and Cultures, and has been passed by the Faculty Council of Arts, which includes:

**(1) African Cultures: A History of Dissemination**

This course seeks to trace the historical processes by which individuals and communities from Africa were taken across the world to the United States, Latin America, the Caribbean Islands etc. through the Slave Trade and were in subsequent years assimilated into the societies of these countries. The course will mainly focus on the narratives/biographies/autobiographies/memoirs of slaves and first-generation emancipates also giving due accord to other forms of “popular” “black” cultural movements and references to treatises, policies and declarations dealing with the education of Slaves.

As a governing logic the course will emphasize the process by which the slaves came to learn the culture and specifically the language of their “masters” in which they later chose to express and assert themselves.

**(2) ‘Africa’ in the Modern World**

This course will focus on the various aspects of culture influenced directly and indirectly by African roots and residues, across the world. The course will be geared towards the understanding the generation and consumption of the “African-Some Nationality” identity in global media and culture. The course will focus on the impact of Africa in the modern world in fields like cuisine, film, fashion, sports and other spheres of popular culture. Though approved by the academic committee, introduction has been held up due to lack of infrastructure and faculty.

A **bursary** named “**Professor Daleep Singh Fellowship in memory of Professor B.N. Ganguli**” has not been awarded this year because none was found suitable. This is generally awarded to a research scholar registered for PhD. or M.Phil thesis on a topic relating to any country in Sub-Saharan Africa.

The Centre helps the Department of Comparative Literature run an optional course in Literatures of Africa in the third and fourth semesters of the MA programme in Comparative Literature.

**Annual Budget:** Rs. 12,000

**Brief Report:**

**Major Objectives**

- A forum for the study of African cultures in the state, and later across the country.
- Facilitate South-South linkages by establishing academic relationships with African nations in terms of exchange, research and other modes of cooperation.
- Conducting research on literatures and cultures of Africa, within Africa and across the world.
- Establishing institutional and inter-departmental links for research.
- Building resources for African literary and cultural studies.

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**Faculty Profile:**

**Debarati Chakraborty**

Guest Faculty at the Centre for Studies in African Literatures and Cultures, Jadavpur University, Kolkata. She submitted her PhD from the Department of Comparative Literature, Jadavpur University, Kolkata. She helped to organize Palaver XIV: a forum for scholars of African Studies, an International Conference on African Literatures and Cultures, that was held on March 14-15, 2017, on “Africa Today”. She was awarded the IOHA (International Oral History Association) scholarship to participate in the XIXth International Oral History Conference on “**Speaking, Listening, Interpreting: the critical engagements of Oral History**” at Bengaluru from 27th June to 1st July 2016. She is elected as an Executive Committee Member of Oral History Association of India (OHAI) in July 2016.

**Mukulika Dattagupta**

Guest Faculty at the Centre for Studies in African Literatures and Cultures, Jadavpur University, Kolkata. She submitted her PhD from the Department of Comparative Literature, Jadavpur University, Kolkata and currently working as a youth volunteer, Youth Community Reporter Project, joint effort of School of Media Communication and Culture, Jadavpur University and UNICEF. Helped to organize Palaver XIV: a forum for scholars of African Studies, an International Conference on African Literatures and Cultures, that was held on March 14-15, 2017, on “Africa Today”.

**Area of Research Activities:**

**Broad Area:**

South-South linkages.

**Special Focus:**

Contact between cultures of the ‘south’.

**Thrust Areas of Research:**

- African Cultures across the World
- Cultures of Orality

**Research Collaborations:**

Ipshita Chanda is a member of the Advisory Council for the Policy Research Institute of the African Studies Association of India, and links with scholars across Africa especially interested in literatures and cultures of Africa have been established.

The Centre participated in the formation and the first meeting of the Oral Historians Association of India (OHAI), at the Centre for Public History, Srishti School of Art, Design and Technology, Bangalore. The Centre is looking forward to collaborate with OHAI’s future endeavors.

Debarati Chakraborty is elected as a member of the Executive Council of Oral History Association of India (OHAI) on 2016. She was an office bearer of the same and joint editor of the annual newsletter “OHAI Varta” from 2013-2015.

**Collaborative Programmes:**

Dr. Jesse Shipley, Associate Professor of Anthropology and member of Peace, Justice, and Human Rights and Africana Studies Programs at Haverford College visited the Centre from January 4 to January 12, 2016. He taught the post graduate students who took Literatures of Africa as their Area Studies paper in the Department of Comparative Literature. During his stay, organized a performance workshop, directed a play which was performed on 11 January 2016 at Anita Banerjee Memorial

Hall as a part of Palaver XIII: a forum for scholars of African Studies, a conference on African Literatures and Cultures, on "Journey of Performance and Performing Art Forms within Africa and Beyond". He also delivered the Keynote Address of Palaver XIII entitled "Trickster Citizenship: Staging Uncertainty in an Age of Revolution" on January 11, 2016.

The Centre is actively helping Jadavpur University to conduct a sensitization programme for students and staff against the racist and casteist ambience prevailing on campus, with active participation of the university students who are foreign nationals as well as the students from the North Bengal.

**Publications:**

Chakraborty, Debarati, and Kunal Chattopadhyay, eds. *Palaver : Proceedings of the Forum for Scholars in African Studies*. Vol. IV. Kolkata: Jadavpur University, 2016.

Chanda, Ipsita. "Whose Arrow is this ? Chinua Achebe's Arrow of God" delivered at Dhaka University celebrations of 50<sup>th</sup> anniversary of Chinua Achebe's *Arrow of God* Dec7, 2014, published in *A Tribute to Chinua Achebe* ed K Bandyopadhyay, Afriki Sahitya Sanskriti Charcha Kendra Dhaka, 2016.

Dattagupta, Mukulika. "Kindness of the White and Happiness of the Black: A Brief Analysis of the 19<sup>th</sup> Century White American Children's Literature." *Sahitya-The Journal of Comparative Literature Association of India*, Nos.6 & 7, 2016.

Dattagupta, Mukulika. Book Review. *Palaver : Proceedings of the Forum for Scholars in African Studies*. Vol. IV. Edited by Debarati Chakraborty and Kunal Chattopadhyay. In *Sahitya-The Journal of Comparative Literature Association of India*, Nos.6 & 7, 2016.

**Conferences, Seminars etc.:**

Palaver XIV: a forum for scholars of African Studies, an international conference on African Literatures and Cultures, was held on March 14-15, 2017, on "Africa Today".

Palaver XV, forum for scholars of African Studies will be held in this academic year.

Debarati Chakraborty participated in the XIXth International Oral History Association (IOHA) Conference on "**Speaking, Listening, Interpreting: the critical engagements of Oral History**" at Bengaluru from 27th June to 1st July 2016.

**Plan of Action (next 5 years):**

- Establishing a group for learning and performing music of African origins, growing out of the Extra Departmental course on African Cultures across the World.
- Developing teaching materials for African Literatures and Cultures for Indian Universities. In order to reach a wider audience, apart from launching our official website; we have created accounts on popular social networking sites like Facebook, and professional networking site like LinkedIn. Articles and relevant materials are uploaded at regular intervals in these sites, with an active response from the users. A list of books gifted by Prof. Manabendra Bandopadhyay is already uploaded on our website, the Centre plans to upload its complete library catalogue and the archive records of music and performance forms.
- Archiving of resources: an audio visual archive of music of African cultures across the world. The process has already started by collecting materials and preserving them in the digital format.
- Extension of Research Support (National): We act as a resource centre for scholars and teachers in other departments like Philosophy and English at Jadavpur University, and for other universities in India, like Viswa-Bharati, Barddhaman and Assam University, Silchar and Central University of Rajasthan, Kishengharh.

- Strengthening International networks: We are currently facilitating the work of researchers from the Department of Anglophone Studies, University of Antananarivo, Madagascar working on oral literature and the dynamics of transmission/transfer of values and knowledge—a comparative approach of Malagasy literature with that of some East African Countries (Mozambique, etc.)/Indian Ocean islands literature.
- Members of academic committee are experts on Policy Research Initiative of the African Studies association of India (PRIASA), located in the School of International Relations at Jawaharlal Nehru University, Delhi.

## **STUDIES IN LATIN AMERICAN LITERATURES AND CULTURES**

[Department of Comparative Literature]

Int. : 2457-2223

Coordinator : Prof Kavita Panjabi

E-mail : lalc.centre@jadavpuruniversity.in

### **1. B. Number of Academic Committee Members : 10**

#### **2. A. Area of Research Activities :**

- i. Reception of Latin American Literatures in Bangla
- ii. Borders in S.Asia and The Americas.

#### **2. B. Major Research Project :(Broad Areas) (Departmental/Individual, Name of the Project/Funding Agency)**

- i. ***Borders in S.Asia and The Americas – in collaboration with Cornell University since 2010, including publication of volumes of collaborative research and a joint bi-annual video-conferencing course.***

**Project of the CSLALC, non-funded.**

#### **3. A. Invited Lectures Delivered/Sessions Chaired: (Name of the Teacher, Type of Participants, Name of the Seminar / Conference etc. Place, Duration)**

- i. Kavita Panjabi -"Care, Labour and Surrogacy: Response to Kalindi Vohra" **at Gujarat/ Guatemala: Marketing Care and Speculating Life: An International Symposium** at Cornell University, May 6-7, 2016 (on Skype)

#### **3. B. Seminar/Workshop/Conference/Symposium Attended: (Name of the Teacher, Name of the Paper Presented, Name of the Seminar, Place, Duration)**

- i. Kavita Panjabi - Keynote Address at International Seminar "**Shifting Significations of Borders in Contemporary South Asia and the Americas**" Organized by the Centre for Studies in Latin American Literatures and Cultures (CSLALC) & Centre of Advanced Study (CAS), Dept. of Comparative Literature, J.U., Jan 19-20.
- ii. Sucheta Bhattacharya: Delivered paper on *Indian and Latin-American Border Movies* in the International Seminar "**Shifting Significations of Borders in Contemporary South Asia**

**and the Americas**” Organized by the Centre for Studies in Latin American Literatures and Cultures (CSLALC) & Centre of Advanced Study (CAS), Dept. of Comparative Literature, J.U., Jan 19-20.

**3. C. Seminar/Workshop/Conference/Symposium Organized:(Name of the Teacher, Name of the Paper Presented, if any, Name of the Seminar, Place, Duration)**

- i. Parthasarathi Bhaumik - International Seminar “**Shifting Significations of Borders in Contemporary South Asia and the Americas**” Organized by the Centre for Studies in Latin American Literatures and Cultures (CSLALC) & Centre of Advanced Study (CAS), Dept. of Comparative Literature, J.U., Jan 19-20.

**5. Collaborative Programmes of the CSLALC:**

- i. With Professor Debra Castillo, Stephen H.Weiss Presidential Fellow, Emerson Hinchliff Professor of Hispanic Studies, and Professor of Comparative Literature at Cornell University. at the International Seminar “Shifting Significations of Borders in Contemporary South Asia and the Americas” Organized by the Centre for Studies in Latin American Literatures and Cultures (CSLALC) as part of the ongoing comparative, collaborative research on **Borders in S.Asia and The Americas.**
- ii. With “Cultura Ithaca” a theatre group in Ithaca, N.Y, as part of the ongoing comparative, collaborative research on Borders in S.Asia and The Americas.

**6. Major Achievements:**

**CSLALC Digital Library:**

Holdings of the Digital Library **augmented** and catalogued under the following categories,

- 1) **E-Books**
- 2) **Articles:** on Borders Readings, Gendered Border Violence, Latin America Gender, Latin America Diaspora catalogue, Manovich Media:, Video Conferencing Course Study Material
- 3) **Film holdings:** more than 170 Latin American film holdings from the following countries: Cuba, Argentina, Brazil, Chile, Peru, Ecuador, Mexico, and Latino films from the US.

**STUDY OF RELIGION AND SOCIETY**

[Department of Sociology]

Int. : 2457-2555

Coordinator: Prof. Ruby Sain

**2. A. Area of the Research Activities.:**

Sociology of Religion.

Religion & Health / Aging/ Gender/ Media/ Ecology Etc.

**2. B. Major Research Project**

Ongoing Project ‘**COMPARATIVE STUDY OF RELIGIONS**’, funded by MHRD through UGC under NME-ICT.

**2. C. Seminar/Workshop/Conference/Symposium Organized :**

Organized 3 Day International conference on **Sociology of Religion in a Pluralistic Society** in collaboration with Lancaster University, UK from **7 to 9 April 2016** in the campus of Jadavpur University.

Organized aSeminar on RELIGION AND HUMAN DEVELOPMENT on 3-10-2016.

**4. A. Articles Published in/Books :**

“THE SOCIOLOGY OF HINDU RELIGION” in **WARP AND RAGS OF RELIGION** , Edited by DANIEL ENSTEDT, GORAN LARSON , FERDINANDO SARDELLA, Goteborg University, Sweden, 2016.

**5. Collaborative Programmes:**

**Global Project on Religion among Young People** in collaboration with Prof .Peter Nynas, Department of Religious Studies, funded by University of Abo Academy, Finland, 2013-2018.

**TRANSLATION OF INDIAN LITERATURES (CENTIL)**

[Department of Comparative Literature]

Int. : 2457-2223

Coordinator: Dr. Sayantan Dasgupta

E-mail : til.centre@jadavpuruniversity.in

**1. A. Courses Offered:** Certificate Course on Translations as a Skill

**1. B. Number of Faculty Members:** 2

**2. A. Area of Research Activities:**

Translation of Indian Literature

**2. B. Major Research Projects:**

Project Anuvad, UGC UPE Phase - II

**3. A. Invited Lectures Delivered/ Session Chaired:**

- i. Professor Sukanta Chaudhuri, Jadavpur University,
- ii. Professor Ananda Lal, Jadavpur University,
- iii. Professor Suchorita Chattopadhyay, Jadavpur University,
- iv. Professor Samantak Das, Jadavpur University,
- v. Professor Anindya Sengupta, Jadavpur University,
- vi. Sri Arnab Bhattacharya, Rabindra-Bharati University,
- vii. Dr Atanu Shah, Jadavpur University,



- viii. Dr Ramkumar Mukhopadhyay, Visva-Bharati,
- ix. Professor Sanjoy Mukhopadhyay, Jadavpur University,
- x. Dr Sujit Kumar Mandal, Jadavpur University,
- xi. Ms Smita Basu, Jadavpur University,
- xii. Sri Sourav Chakraborty, Jadavpur University, etc.

**3. C. Seminar/ Workshop/ Conference/ Symposium Organized:**

- i. Nepali-Bangla, Nepali-English translation workshop on ‘*Contemporary Indian Nepali-Language Writings (2000-2015)*’, June 20 – 24, 2016, as part of (international/national/state/local-level)
- ii. Nepali-English translation workshop on ‘Nepali Children’s Literature’ from the book “*PrakritikoPriyaGhar*” from October 24-28, 2016, as part of (international/national/state/local-level)
- iii. Seven-day international Nepali-Bangla translation Workshop on ‘*The Nepali Lahari-Sawai*’, from November 21 to 29, 2016, as part of
- iv. Seven-day translation workshop on ‘*Translating 19th Century Women’s Writing and Writing for Women*’ in collaboration with The Bhawanipur Education Society College, Department of English, from December 05 to 11, 2016
- v. Nepali-English, Nepali-Bangla translation workshop on Sanu Lama’s Short Stories, from December 15 to 20, 2016
- vi. A talk by Dr. Prof. Michaela Albl- Mikasa (Zurich University of Applied Sciences, Switzerland) on ‘*Multilingualism, Translation, Interpreting and English as a Lingua Franca in Europe*’ in collaboration with School of Languages and Linguistics, Jadavpur University, on December 20, 2016
- vii. International Winter School on Literary Translation 2017, in collaboration with the British Centre for Literary Translation (BCLT), University of East Anglia and Writers’ Centre Norwich, January 30 and 31, 2017

**4. A. Books/ Monographs etc. Published:**

- i. Sayantan Dasgupta and Kabita Lama eds., *Call of the Hills: A Coursebook of Indian Nepali Literature in Translation* Volume 1 (revised second edition), Jadavpur University Press: Kolkata, April 2016

**5. Collaborative Programmes:**

- i. Seven-day translation workshop on ‘*Translating 19th Century Women’s Writing and Writing for Women*’ in collaboration with The Bhawanipur Education Society College, Department of English from December 05 – 11, 2016
- ii. A talk by Dr. Prof. Michaela Albl- Mikasa (Zurich University of Applied Sciences, Switzerland) on ‘*Multilingualism, Translation, Interpreting and English as a Lingua Franca in Europe*’ in collaboration with School of Languages and Linguistics, Jadavpur University, on the December 20, 2016
- iii. International Winter School on Literary Translation 2017, workshop for translation of Odia, Bangla, Nepali and English literary texts in English and/or Bangla, in collaboration with the British Centre for Literary Translation (BCLT), University of East Anglia and Writers’ Centre Norwich, January 30 and 31, 2017

**6. Major Achievements:**

CENTIL has been creating an archive of Indian literatures in English and Bangla translation and imparting translator training.

## WELDING TECHNOLOGY

[Department of Metallurgical & Material Engg.]

Int. : 2457-2171

Coordinator: Dr. A.K. Pramanick

E-mail : wtc.centre@jadavpuruniversity.in

### 1. Project Ongoing

To develop procedure for joining for next generation high temperature material to be used for supercritical/ultra super critical power plant by Friction Stir Welding

**Time: 2015-2018**

**Cost: Rs. 5, 85, 89289/-**

### 2. Ph. D completed: 3

### 3. Ph. D Submission: 2

### 4. Ph. D Ongoing: 2

### 5. Administrative Meeting :

- i. Project Review Committee (PRC) for the project was organized by Welding Technology Centre, Jadavpur University in association with MECON Limited, Ranchi, on 24.06.2016
- ii. Administrative Committee Meeting of Our Collaborative research project on, "To Develop procedure for joining next generation high temperature material to be used for supercritical/ultra super critical power plant by Friction Stir Welding" held on 19.10.2016
- iii. Administrative Committee Meeting of Our Collaborative research project on, "To Develop procedure for joining next generation high temperature material to be used for supercritical/ultra super critical power plant by Friction Stir Welding" held on 24.03.2017

### 6. Publication:

1. A. K. Pramanick, H. Das, S. Nandy, **T. K. Pal**, Characterization of Microstructure and Nonmetallic Inclusions of Double V Grooved Armour Steel Weld Metal Through Developed Coated Electrode, Transactions of the Indian Institute of Metals, 2017, Volume 70, Issue 6, pp 1621–163
2. P. Banerjee, R. Sarkara, **T.K. Pala**, M. Shomeb, "Effect of nugget size and notch geometry on the high cycle fatigue performance of resistance spot welded DP590 steel sheets", Journal of Materials Processing Technology 238 (2016), pp.226–243.
3. Sushovan Basak, Hrishikesh Das, **Tapan Kumar Pal**, Mahadev Shome "Corrosion behavior of MIG brazed and MIG welded joints of automotive DP600-GI steel sheet", Journal of Materials Engineering and Performance, 2016, 10.1007/s11665-016-2356-1
4. A.K. Pramanick, H. Das, G.M. Reddy, M. Ghosh, G. Das, S. Nandy, **T.K. Pal**, "Development and design of microstructure based coated electrode for ballistic performance of shielded metal arc welded armour steel joints", Materials and Design 103 (2016), pp.52–62
5. Pallab Roy, **Tapan Kumar Pal**, and Joydeep Maity: "Transient Liquid Phase Diffusion Bonding of 6061Al-15 wt.% SiCp Composite Using Mixed Cu-Ag Powder Interlayer", JMEPEG (2016) 25:3518–3530

6. SushovanBasak, **Tapan Kumar Pal** and MahadevShome, “High-cycle fatigue behavior of MIG brazed galvanized DP600 steel sheet joint—effect of process parameters”, Int J AdvManufTechnol, 2016, Vol. 82, pp. 1197–1211.
7. SushovanBasak, Hrishikesh Das, **Tapan Kumar Pal** and MahadevShome: “Characterization of intermetallics in aluminum to zinc coated interstitial free steel joining by pulsed MIG brazing for automotive application”,Materials Characterization, 2016,,Vol.112, pp. 229-237.
8. T. Sarkar, S. Banerjee, S. K. Sahoo , **T. K. Pal**, A. K Pramanick, evelopment of Coated Electrode and Welding Procedure for Austempered Ductile Iron (ADI) published in NWS 2016, kolkata, 15-17th Dec.





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## ADULT, CONTINUING EDUCATION AND EXTENSION

Phone : +91-33-2414-6236  
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H.O.D. : Dr. Parthasarathi Chakraborty  
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hodadultcontinuing@jadavpuruniversity.in

### 1. A. Courses Offered:

Details of the Courses offered during the period from April 2016 to 31 March 2017 may be found in the Annexure 'A' attached herewith.

### 1. B. Number of Faculty Members: Three (3)

### 2. A. Area of Research Activities:

Adult Education, Continuing Education, Communication, Engineering

### 3. B. Seminar/Workshop/Conference/Symposium Attended:

- (1) **Santwan Chattopadhyay** presented paper in International Seminar on 'Environmental Issues, Livelihood: Communication Protocol' on 12<sup>th</sup> July, 2016
- (2) **Santwan Chattopadhyay** presented paper in International Seminar on 'Connecting the Under-Privileged: Scopes and Challenges' on 9<sup>th</sup> November, 2016
- (3) **Santwan Chattopadhyay** presented paper in National Seminar on 'Higher Education in India: Road Ahead' on 19<sup>th</sup> November, 2016
- (4) **Santwan Chattopadhyay** presented paper in National Seminar on 'The Role of Media in Social, Economic and Political Development' on 10<sup>th</sup> March, 2017
- (5) **P.S. Chakraborty** presented paper in International Seminar on 'Environmental Issues, Livelihood: Communication Protocol' on 12<sup>th</sup> July, 2016
- (6) **P.S. Chakraborty** presented paper in International Seminar on 'Connecting the Under-Privileged: Scopes and Challenges' on 9<sup>th</sup> November, 2016
- (7) **P.S. Chakraborty** presented paper in National Seminar on 'Higher Education in India: Road Ahead' on 19<sup>th</sup> November, 2016
- (8) **P.S. Chakraborty** presented paper in National Seminar on 'The Role of Media in Social, Economic and Political Development' on 10<sup>th</sup> March, 2017

### 3. C. Seminar/Workshop/Conference/Symposium Organised:

- (1) Organised Workshop on 'Curriculum of Mass Communication Studies in the Contemporary Lights' on 3<sup>rd</sup> February, 2017

### 4. B. Articles Published in Journals:

1. **Avra Sen, P.S.Chakraborty and Santwan Chattopadhyay** , The Impact of Social Media on Advertising, **Global Media Journal, June 2016, pp- 1-11**



2. **P.S.Chakraborty**, Rajib Dey, 2016, The behavioral changes of children with special need through skill development programme, Renova, 2(1), pp.62-71.
3. K. Balakannan, S. Nallusamy, **P.S.Chakraborty** & Gautam Majumdar, 2016, Performance evaluation of supply chain and logistics manufacturing system using Balanved Score Card for efficiency enhancement in Indian automotive industry, Indian Journal of Science and Technology, 9(35), pp-1-9.

**5. Collaborative Programmes:**

Courses organised in collaboration with different organisations have been shown in Annexure 'A'.

**Annexure : 'A'**

**COURSES OFFERED**

**GRADUATE LEVEL COURSES :**

<b>Title of the Course</b>	<b>Duration</b>	<b>Course Fee</b>	<b>Eligibility</b>
B.Ed. in Special Education (Multiple Disabilities) (With Indian Institute of Cerebral Palsy)	2 Year	Rs.80,000/- +Rs.360/-	Graduate in any discipline
B.Ed. in Special Education(Mental Retardation)(With Manovikash Kendra)	2 Year	Rs.80,000/- +Rs.360/-	Graduate in any discipline

**POST - GRADUATE DIPLOMA LEVEL COURSES :**

<b>Title of the Course</b>	<b>Duration</b>	<b>Course Fee</b>	<b>Eligibility</b>
Post Graduate Diploma in Mass Communication	Year	Rs.20,000/-	Graduate in any discipline

**DIPLOMA LEVEL COURSES:**

<b>Title of the Course</b>	<b>Duration</b>	<b>Course Fee</b>	<b>Eligibility</b>
Diploma in Electrical Technician (With Sri Aurobindo Engineering Institute)	2 Years	Rs.32,000/-	Madhyamik or equivalent
Diploma in Automobile Engineering (With Sri Aurobindo Engineering Institute)	2 Years	Rs.32,000/-	Madhyamik or equivalent

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**CERTIFICATE LEVEL COURSES :**

<b>Title of the Course</b>	<b>Duration</b>	<b>Course Fee</b>	<b>Eligibility</b>
Technician Training Course in Air-Conditioning and Refrigeration (In collaboration with St. Thomas Technical Training Centre)	1 Year	Rs.500/- per month	Passed Class VIII standard
Computer Hardware (In collaboration with St. Thomas Technical Training Centre)	6 Months	Rs.4500/-	Class X appeared.
Basic Networking (With St. Thomas Technical Training Centre)	16 Weeks	Rs.3500/	Class X appeared and knowledge of Computer Hardware
Vocational course on 'Industrial Practices' (With TMC Institute of Learning)	24 Weeks	Rs.6000/	Madhyamik or equivalent/ Class VIII passed with 5 years experience in related industry.
Caregivers for persons with disabilities (With IICP)	8 Weeks	Rs.1000/	Class VIII passed
Basic Management of Cerebral Palsy (With IICP)	4 Weeks	Rs. 5000/-	Qualified Medical Professionals(MBBS,BHMA, Therapists with B.SC. degree and Rehabilitation Professionals)
Manuscriptology & Paleography	24 Weeks	Rs.5500/-	Graduate with working knowledge of Sanskrit

**COURSES FOR THE PERSONS WITH SPECIAL NEEDS :**

<b>Title of the Course</b>	<b>Duration</b>	<b>Course Fee</b>	<b>Eligibility</b>
Art & Craft Course for the Deaf and Physically Challenged Persons (With Silence Training Institute)	1 Year	Rs.576/-	Passed Class VIII standard or Passed Class VI standard with relevant experience. Persons should be adult and physically challenged and having normal functioning of brain, if of course hands and eyes are not affected.

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**EXTENSION & FIELD OUTREACH PROGRAMMES :**

<b>Title of the Course</b>	<b>Duration</b>	<b>Course Fee</b>	<b>Target Group</b>
Sewing and Tailoring (Kalikapur I No. Gram Panchyat)	6 Months	Nil	Rural underprivileged women
Sewing and Tailoring (Kalikapur II No. Gram Panchyat)	6 Months	Nil	Rural underprivileged women
Sewing and Tailoring (Pratapnagar Gram Panchyat)	6 Months	Nil	Rural underprivileged women
Sewing – Basic (Emmanuel Ministries )	6 Months	Nil	Street Children
Sewing – Advanced (Emmanuel Ministries )	6 Months	Nil	Street Children



## D. SPECIAL PROGRAMME

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## **Annual Report 2016-17**

### **GLOBAL CHANGE PROGRAMME**

Telefax : 2414-6382  
Int. : 2457 - 2389  
Coordinator. : Professor Joyashree Roy  
E-mail : jadavpur.gcp@gmail.com  
<http://www.juglobalchangeprogram.org>

The Global Change Programme at Jadavpur University (GCP-JU) marks the beginning of a multidisciplinary and comprehensive approach in India at the University level to address the issues of global change and related issues like climate change. GCP-JU comprising theoretical, empirical and action research projects as well as outreach activities seeks to have a direct impact on policy implementation and global change related negotiations at the local, national and international levels. Specifically, GCP-JU has been providing research inputs to The Intergovernmental Panel on Climate Change (IPCC), Millennium Assessment Report (2005), Stern Review Report (2006), and Global Energy Assessment of IIASA (International Institute for Applied Systems Analysis) at the international level. The research centre has also worked with Ministry of Environment and Forest towards preparation of NATCOM (National Communication) for United Nations Framework Convention on Climate Change (UNFCCC) and helps in capacity building within India and many developing countries. At the state level, GCP - JU is involved in the preparation of comprehensive report to ascertain the climate change impact, vulnerability and mitigation potential within the state of West Bengal.

GCP-JU provides an ideal platform to researchers, working professionals, governmental and non- governmental organizations to research, network and collaborate on various local, national and international global change issues. GCP-JU collaborates with various governmental and non- governmental organizations to organize state level, national and international seminars, meetings and workshops which stimulate intellectual dialogue and facilitate policy making.

#### **Primary Aim is Capacity Building Through**

- Targeted research
- Short training programmes
- Outreach activities
- Information dissemination

#### **Internship at GCP-JU:**

Graduate / undergraduate students from various parts of India as well as from other countries work as interns and work with researchers associated with various ongoing projects. During April 2016 and March 2017 three (3) interns have worked at GCP-JU.

#### **Visiting Fellows:**

Individual researchers, doctoral fellows, faculty members of various academic institutions as well as working professionals have the opportunity to conduct a part of their research

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or project in collaboration with GCP-JU. The visiting scholars/ working professionals can avail GCP-JU resources to facilitate their work and share their understanding of global change issues with the researchers at GCP-JU through workshops, seminars and group discussions.

### **Post-Doctoral Research:**

Through various project activities Post Doctoral fellowship is helping advanced fellows to pursue research on frontier areas.

### **Activities from April 2016 to March 2017:**

TEDxGhent : Prof. Joyashree Roy delivered TEDxGhent talk in June 2016 Human Beings Hold the Key to a Solution –Mission Decarbonisation.

### **Lecture Sessions/Meetings Organized at/by GCP:**

- 2017, January 16, “ Co-benefits of energy efficiency: Quantifying productivity impact” delivered by Souran Chatterjee, Ph.D Research Scholar, Central European University, Hungary and Economics, Horizon 2020 Project, European Commission at Global Change Programme, Jadavpur University.
- 2017, January 27 to February 2, Global Change Programme-Jadavpur University organized a short term course on “Engineering & Materials for Sustainable Development” under Global Initiative of Academic Networks (GIAN), MHRD, Govt. of India.
- 2016, May 24, Global Change Programme-Jadavpur University and Bengal Chamber of Commerce and Industry organized a Discussion Forum on –”Sustainable Energy: General Basics & Advanced Interdisciplinary Learning”:A programme sponsored by UGC-RCN under Indo-Norwegian Cooperation Programme 2014 (INCP)
- 2016, April 4, “ Reconstructing the idea of Social Business” delivered by Dr. Sajjad Zohir, Executive Director, Economic Research Group, Dhaka, Bangladesh at Global Change Programme, Jadavpur University
- 2016, July, 8, Global Change Programme, Jadavpur University, along with Professor Ashok Gadgil from the University of California, Berkeley, organized a programme at the Dhaphdhapi High School of Dhaphdhapi, Baruipur with the students and staff members of the school to introduce them formally to the progress of the Arsenic Remediation Treatment plant located at the school
- 2016, July 12, US Consul General Craig Hall and the Assistant Public Affairs Manager, Greg Pardo visited the Department of Civil and Environmental Engineering at Jadavpur University, Kolkata with Professor Joyashree Roy and the team members of the IUSSTF project
- 2016, July 27, “Public Health Economics” delivered by Prof. Koustuv Dalal, Director, Centre for Injury Prevention and Safety Promotion at Global Change Programme, Jadavpur University

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- 2016, September 15 and September 24, Global Change Programme of Jadavpur University in association with US Consulate General Kolkata and Banglanatak dot com organized the first workshop on “Kolkata’s air quality: navigating solution space” at American Center, Kolkata
- 2016, October 5, Global Change Programme of Jadavpur University in association with University of Stravanger organized a workshop on “Decarbonization roadmap for India” in Norway
- 2016, December 15, “How US Shale Gas is making Indian LNG cheaper” delivered by Robert Bryce senior fellow at the Manhattan Institute for Policy Research in New York City at Seminar Hall, First Floor, Electrical Engineering Department, Jadavpur University

#### **Presentations by Interns:**

- December 6, Ms. Mallika Bhowmick, M.A student of Economics at Hyderabad Central University, presented on “Dependence of Indian Economy on Natural Gas”
- December, 2016, Ms. Titas Dutta, MA student of Economics at Hyderabad Central University presented on “Natural Gas and its Barriers in India”

#### **Research Projects (Completed / Ongoing):**

- Centre for International Climate and Environmental Research, Oslo (CICERO) funded research project “INDGLOB” completed
- “Commercializing a Scalable Low-cost Arsenic Remediation Technology for Societal Impact funded by Indo- US Science and Technology Forum (IUSSTF)”  
Completed
- “Demonstrating a Sustainable Solution for Arsenic Removal from Drinking Water and sustainable Arsenic bearing Sludge Management” under USAID- DIL Sub award in collaboration with University of California, Berkeley.  
Ongoing
- University Grants Commission (UGC) funded research project “Road Map for Decarbonization of Indian Energy System: Exploring Innovative Solutions” under Indo-Norwegian Cooperation Programme (INCP)
- University Grants Commission (UGC) funded research project under University of Potential Excellence - II (UPE - II) on “National Adaptation Strategy formulation for reduction of climate induced risk to labour productivity”

#### **Publications: (2016 - 17)**

##### **In Peer-Reviewed Journals:**

- K. Jana, A. Ray, M.M Majoumerd, M. Assadi, and S. De, “Polygeneration as a future sustainable energy solution - A comprehensive review”, Applied Energy (Elsevier) (I.F.:5.746) (in press)

### **Annual Report 2016-17**

- A. Ray, K. Jana and S. De (2017), “Polygeneration for an off-grid Indian village: optimization by economic and reliability analysis”, *Applied Thermal Engineering* (Elsevier) (I.F.:3.043)117, 182-196.
- K. Jana, and S. De (2017) “Environmental impact of biomass based polygeneration – A case study through life cycle assessment” *Bioresource Technology* (Elsevier) (I.F.:4.917) 227, 256-265
- K. Jana and S. De (2017), “Environmental impact of an agro-waste based polygeneration without and with CO<sub>2</sub> storage: life cycle assessment approach”; *Bioresource Technology* (Elsevier) (I.F.:4.917) 216, 931-944.
- S. Mondal and S. De (2017),”Power by waste heat recovery from low temperature industrial flue gas by Organic Flash Cycle (OFC) and transcritical-CO<sub>2</sub> power cycle: A comparative study through’ combined thermodynamic and economic analysis”; *Energy* (Elsevier) (I.F.:4.292)121, 832-840.
- S. Dutta, S. Bardhan and S. Bhaduri (2017), “Density and Neighbourhood Environmental Quality – A Comparative Study in the context of Indian Cities”, *International Journal on Emerging Technologies*,ISSN: 0975-8364, 8(1): 315-323
- P. K Maiti and B. Roy (2017),”Development and performance assessment of White LED dimmer”. *Journal of the Institution of Engineers (India): Series B*, <https://link.springer.com/article/10.1007/s40031-017-0275-7>
- P. K. Maiti and B. Roy (2017), “Evaluation of a light controller for a LED-based dynamic light source”, *Lighting Research & Technology*. <http://journals.sagepub.com/doi/full/10.1177/1477153517690798>.
- K. Jana and S. De (2016),”Utilizing waste heat of the flue gas for post combustion CO<sub>2</sub> capture – a comparative study for different process layouts”; *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects* (Taylor and Francis); 38(7), 960-966.
- S. Banik, S. Ray and S. De (2016) ,” Thermodynamic modelling of a recompression CO<sub>2</sub> power cycle for low temperature waste heat recovery”, *Applied Thermal Engineering* (Elsevier) (I.F.:3.043)107, 441-452C)
- A. K. Chowdhury, A. Debsarkar and S. Chakrabarty (2016), “Assessment of Seasonal Variations of Average Traffic Pollution Levels in Curbside Open-Air Microenvironments in Kolkata, India”, *Health Scope.*, Vol-5, No.-2, DOI: 10.17795/jhealthscope-33081.
- S. De, S. K. Maiti, T. Hazra, A. Debsarkar and A. Dutta (2016), “Leachate characterization and identification of dominant pollutants using leachate pollution index for an uncontrolled landfill site”, *Global Journal of Environmental Science and Management*, Vol-2(2): pp-177-186
- D. Dasgupta, A. Debsarkar, T. Hazra, B.K. Bala, A Gangopadhyay and D.Chatterjee (2016), “Scenario of future e-waste generation and recycle-reuse-landfill-based disposal pattern in India: a system dynamics approach”, *Environment, Development and Sustainability* (Springer Publication), Vol-18, No.-3, pp-1-15, DOI 10.1007/s10668-016-9815-6.

### **Annual Report 2016-17**

- B. Gupta Bakshi, A Dutta and B. Roy (2016). “Development and validation of dynamic conductance based wattage independent model for magnetic ballast driven non-retrofit CFLs”. *Light & Engineering*, 24(2): 65-76.
- P. Mandal and B. Roy (2016), “Matlab simulation of Indoor general lighting with luminaireies file”. *Light & Engineering*, 24(2):118-127.
- S. Dasgupta and J.Roy (2016), “Analysing energy intensity trends and decoupling of growth from energy use in Indian manufacturing industries during 1973-74 to 2011-12”, DOI 10.1007/s12053-016-9497-9, *Energy Efficiency*, 1-19
- S. Colenbrander, A. Gouldson, J. Roy, N. Kerr, S. Sarkar, S. Hall, A. Sudmant, A. Ghatak, D. Chakravarty, D. Ganguly and F. McAnulla (2016), “Can low-carbon urban development be pro-poor? The case of Kolkata, India”, DOI: 10.11 77/0956247816677775, *Environment and Urbanization*, 1-20
- J. Roy, S. Datta, P. Kapuria, I. Guha, R. Banerji, S. Rao, M. G. Miah, M. R. Islam, S. Chen, H, Li, T. Xia, J. Ratnasir, P. B. T. P. Kumara, C. S. Lokuhetti and S. P. Vidanage (2016) , “Coastal Ecosystem and Changing Economic Activities and Vulnerabilities along Chinese and South Asian Coasts”, *APN Science Bulletin*, 21-26
- J.Roy, D. Ganguly and D. Chakravarty (2016), “Low Carbon Green Growth Strategies and Sustainable Development for Mega cities : A Case Study of Kolkata” , *Amity Journal of Economics*, 1 (1); 73-86

#### **In Conference Paper:**

- A. Roy, K. Jana, S. De and M. Assadi (2017), “Optimum design of pv-wind-biomass-fuel cell based polygeneration system by using meta heuristic algorithm”, *Proceedings of the International Conference on Sustainable Energy and Environmental Challenges (SEEC-2017) 26– 28 February, 2017, Mohali, India. Paper No. SEEC-2017-066.*
- K. Jana, A. Roy, S. De, M. Assadi and S. Mondal (2017), “Exergy analysis of a biomass based polygeneration” , *Proceedings of the International Conference on Sustainable Energy and Environmental Challenges (SEEC-2017) 26 – 28 February, 2017, Mohali, India. Paper No. SEEC-2017-062.*
- S. Mondal, S. De and M. Assadi (2017), “CO2 based combined power and refrigeration cycle - a scheme for low grade waste heat”, *Proceedings of the International Conference on Sustainable Energy and Environmental Challenges (SEEC-2017) 26 – 28 February, 2017, Mohali, India. Paper No. SEEC-2017-082.*
- V. Gupta and B. Roy (2017), “Design Topology Based Comparative Study on Electric and Photometric Parameters of Commercially Available LED Lamp Systems”. *2017 2<sup>nd</sup> International Conference for Convergence in Technology (I2CT); Siddhant College of Engineering, Pune, India. Apr 7-9, 2017.*
- J. Roy, S. Dasgupta and D Chakraborty (2017), “Deep decarbonisation in industries: what does it mean for India?” Wuppertal Institute’s brochure on the LCS-RNet conference 2016. Wuppertal Institute for Climate, Environment and Energy, Wuppertal, Germany. Wuppertal Institute for Climate, Environment and Energy, 2017

### **Annual Report 2016-17**

- A. Roy, K. Jana and S. De (2016),” Optimum energy solution of a remote off-grid village with polygeneration using local resources”, International Conference on Renewable Energy- Extension & Outreach, 20-21 March, 2016, Visva-Bharati, Santiniketan, India.
- M. Mansouri Majoumerd, H. Raas, K. Jana, S. De and M. Assadi (2016),” Coal quality effects on the performance of an IGCC power plant with CO<sub>2</sub> capture in India” 13th International Conference on Greenhouse Gas Control Technologies, GHGT-13, 14-18 November 2016, Lausanne, Switzerland.
- I. Mookherjee, A. Roy, A. Dutta, A. Debsarkar and P. Aitch (2016), “Sustainable Management of Arsenic Bearing Sludge”, presented in 6th International Conference on Solid Waste Management, 6th IconSWM 2016, Jadavpur University, Kolkata, India, November 24 - 26, 2016.
- D. Dasgupta, A. Debsarkar, A. Gangopadhyay and D. Chatterjee (2016), “Assessment of Ecological and Health Risk associated with Informal Handling of E-waste: A Case Study of Sangrampur, South 24 Parganas”, presented in 6th International Conference on Solid Waste Management, 6th IconSWM 2016, Jadavpur University, Kolkata, India, November 24 - 26, 2016.
- S.K. Maiti, T. Hazra and A. Debsarkar (2016), “Electrocoagulation Process for Landfill Leachate Treatment: A Review”, presented in 6th International Conference on Solid Waste Management, 6th IconSWM 2016, Jadavpur University, Kolkata, India, November 24 - 26, 2016.
- M. Roy, J. Mukherjee and A. Debsarkar (2016), “Conversion of abattoir wastes and its subsequent use as organic fertilizer: A Sustainable approach towards waste management”, presented in 6th International Conference on Solid Waste Management, 6th IconSWM 2016, Jadavpur University, Kolkata, India, November 24 - 26, 2016.
- P. Mandal and B. Roy (2016), “Adaptive dimming scheme based daylight pipe integrated indoor lighting system under Perez All-weather sky model”. 2016 IEEE International WIE Conference on Electrical and Computer Engineering (IEEE WICON-ECE 2016).Pune 19-21 December, 2016.
- D. De, S. Sahana and B. Roy (2016), “Performance analysis of fluorescent and LED lamp systems”, International Conference of Computer, Electrical and Communication Engineering (ICCECE 2016). Kolkata, India. 16-17 December 2016.
- B. Gupta Bakshi and B. Roy (2016), “Development & simulation of dynamic conductance based High Intensity Discharge lamp model driven by Low Frequency Square Wave electronic ballast”. 7<sup>th</sup> Power India International Conference (IEEE PIICON-2016). Govt. Engineering College Bikaner, Rajasthan, India. November 25-27, 2016.



### **Annual Report 2016-17**

- B. Gupta Bakshi and B. Roy (2016), “Development and simulation of dynamic conductance based wattage-independent Compact Fluorescent Lamp model in high frequency environment”. CIEC 2016 2nd International Conference on Control, Instrumentation, Energy and Communication, 2016.

#### **Authored Books:**

- A. Das, J. Roy and S. Chakraborti (2016), “Socio-Economic Analysis of Arsenic Contamination of Groundwater in West Bengal”, DOI 10.1007/978-981-10-0682-1, Print ISBN 978-981-10-0680-7, Online ISBN 978-981-10-0682-1, Series ISSN 2198-0012. Springer Singapore, 2016

#### **Articles in Edited Volumes:**

- K. Jana and S. De (2017), “Thermo-chemical ethanol production from agricultural waste through polygeneration: performance assessment through a case study” pp. 137-156, In: Biofuels, Eds: AK Agarwal, RA Agarwal, T Gupta, BR Gurjar. Springer, Singapore. (DOI: 10.1007/978-981-10-3791-7\_8)
- D. Chakravarty and J. Roy (2016), “The Global South: New Estimates and Insights from Urban India”. ISBN 978-3-319-38805-2, ISBN 978-3-319-38807-6 (eBook), DOI 10.1007/978-3-319-38807-6, Rethinking Climate and Energy Policies: New Perspectives on the Rebound Phenomenon, edited by Tilman Santarius, Hans Jakob Walnum, Carlo Aall
- D. Ghosh, F. Sengers, A. J. Wiczorek, B. Ghosh, J. Roy, and R. Raven (2016),” Urban Mobility Experiments in India and Thailand”, <https://www.routledge.com/The-Experimental-City/Evans-Karvonen-Raven/p/book/9781138856202>, The Experimental City edited by James Evans, Andrew Karvonen, Rob Raven, Routledge
- J. Roy, D. Ghosh, K. Mukhopadhyay and A. Ghosh (2016), “Exacerbating Health Risks in India due to Climate Change: Rethinking Approach to Health Service Provision”, pp.1-25, DOI: 10.4018/978-1-4666-8814-8.ch001. Handbook of Research on Climate Change Impact on Health and Environmental Sustainability, Editor: Soumyananda Dinda, IGI Global

## ***Annual Report 2016-17***

### **IMPACT**

#### **CENTRE FOR IMPROVING QUALITY IN COMPUTER TRAINING, EDUCATION AND RESEARCH**

Phone :2414-6138

Coordinator. : Professor Samiran Chattopadhyay

#### **IMPACT Centre: A Brief History**

IMPACT Centre is an upgradation of Project IMPACT, a pilot project on manpower development in Electronics and Computers, with initial assistance from the World Bank, The Swiss Development Cooperation & Govt. of India, aimed at improving the quality of Under-graduate and Diploma level Education to meet the needs of the Industry. It had been implemented in 32 Participating Institutions (PIs) consisting of 14 Engineering Colleges, 12 Polytechnics and 6 CEDTs, during 1991-97. Five premier institutions, Jadavpur University-Calcutta, IIT Bombay, IIT Delhi, IISc Bangalore and NEC Bangalore acted as Resource Centres (RCs) to the project, providing professional support to the PIs. The Project Implementation Unit had been under Ministry of Communication & Information Technology (MCIT), Govt. of India, previously known as Department of Electronics (DOE), New Delhi.

In order to ensure that the gain achieved under Project IMPACT do not wither away, Sustainability Support Scheme (SSS) was launched with effect from. January 1998 with a unique built-in feature of revenue generation at the SSS PIs. Sustainability Support Scheme has been implemented with the objectives namely to sustain the quality of education and training of engineering undergraduate and diploma students in the fields of Electronics and Computer, to provide up-gradation of knowledge and skills of industry professionals through Continuing Engineering Education Programme and to strengthen the linkage between academic institutions and industry.

#### **Objectives of IMPACT Centre**

- To take up a major drive in computer literacy programme throughout West Bengal.
- To support and promote training activities in the area of Information Technology & Computer Technology in India.
- To arrange lectures, discussions, workshops, seminars, conferences etc. for bridging the digital divide.
- To collaborate with the IT industries and their consortiums to promote activities related to filling up the gap between the needs of the Industry.
- To co-operate with other persons and institutions in attaining the above objects or any of them.
- To develop audio-visual, computer based and other aids for education and training including study and demonstration materials, audio, video and computer software etc.

## **Annual Report 2016-17**

- To engage in retraining of teachers in private engineering colleges
- To conduct training of computer literacy courses for officers and staff in the University
- To render technical assistance or advice public / private institutions / organizations, Govt. Or Semi-Govt. bodies, panchayats, zilla parishads, municipalities, corporations etc. in their endeavours to change their business processes.
- To engage and assist in academic/ developmental/ research/literary/ pedagogic activities as may be deemed appropriate by the governing body.
- To engage in computer training of underprivileged people

### **Members of the Administrative Committee**

1. Prof. Suranjan Das, Vice Chancellor, Chairman.
2. Dr. Ashish Swarup Verma, Pro Vice-Chancellor.
3. Dean, Inter-disciplinary Studies, Law & management, JU.
4. Dr. Pradip Kumar Ghosh, Registrar JU.
5. Dr. Subir Chakraborty, Jt. Registrar, JU.
6. Mr. Gour Krishna Pattanayak, Finance Officer, JU
7. Prof. Samiran Chattopadhyay , Coordinator.
8. Prof. Rajib Banerjee, Dept. of Instrumentation and Electronics Engg.,JU
9. Prof. D. Ghosh Dastidar. Retired Professor, JU (permanent invitee).
10. Prof. D. D. Sinha. Dept. of Comp. Sc. & Engg, CU

### **Staff Members (Temporary)**

<b>Designation</b>	<b>Number</b>
Technical Assistant	03
Peon	01
Lab Attendant	01
Helper	01

### **Infrastructure Available**

The IMPACT Centre has a space of 5,000 sq ft, which was created by the IMPACT project. This space is located in the fifth floor of the RCC Building in Jadavpur Campus and in the third floor of the ETCE building in Jadavpur Campus. The project also has a huge seminar room at the fifth floor of the RCC Building.

The project IMPACT has a state of the art laboratory with 24 desktop computers, 1 laser printers, a photocopier. Students of different courses of IMPACT Centre use these labs on regular basis.

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### **Ongoing Courses Offered Jointly with Brainware.**

#### **1. One Year PG Diploma Courses**

- a. Image Editing & Animation
- b. Video Editing & 3D Animation
- c. Computerized Financial Accounting
- d. Finance & Stock Market
- e. Hardware & Networking
- f. Networking Technologies
- g. Software Engineering

#### **2. Six Months Certificate Course**

- a. MS .net Programming
- b. BPO
- c. DTP & Image Editing
- d. Oracle 10G Express
- e. Advance Linux Administration and Scripting

#### **3. Number of Students Successfully Completed (April 2016- March 2017):**

<b>Sl. No</b>	<b>Name of the Course</b>	<b>Number of students who got certificates</b>
1	PG Diploma Image Editing & Animation	59
2	PG Diploma Video Editing & Animation	39
3	PG Diploma Computerized Financial Accounting	94
4	PG Diploma Finance & Stock Market	7
5	PG Diploma Hardware & Networking	57
6	PG Diploma Networking Technologies	30
7	PG Diploma Software Engineering	79
8	PG Diploma Web Technology	7
9	Certificate Course in MS .net Programming	6
10	Certificate Course in Oracle 10G Express	5
	<b>Certificate Received Total</b>	<b>383</b>

#### **Short Courses Conducted by IMPACT**

Apart from serving IT industry by providing software and hardware professionals, this project, since its conception, has been showing keen interest to spread computer education among the common people who are not directly related to IT industries and

### **Annual Report 2016-17**

also to the less privileged and financially backward students. The following course was conducted this year.

- “Be a Professional” Training Program For Non-Teaching Staff Members – Group C of Jadavpur University on May 30, 2016.

Training Document on MS-Word, MS-Excel, MS-PowerPoint & transferring data from one PC to another were developed and distributed.

Mr. Rajshekhar Nag, Ms Tanushri Ghosh Dastidar and Mr. Nilanjan Banerjee served as resource persons

Total Participants : 35

- An Introduction to Office Tools “Training Program for Non-Academic Staff Members, JU – Group B & C” On January 19, 2017.

Training Document on MS-Word, MS-Excel, MS-PowerPoint & transferring data from one PC to another were developed and distributed.

Mr. Rajshekhar Nag, Ms Tanushri Ghosh Dastidar and Mr. Nilanjan Banerjee served as resource persons

Total Participants : 50

- Training Program For Non-Teaching Staff Members – Group C “A journey – Step to be a Professional” On March 10, 2017.

Training Document on MS-Word, MS-Excel, MS-PowerPoint & transferring data from one PC to another were developed and distributed.

Mr. Rajshekhar Nag, Ms Tanushri Ghosh Dastidar and Mr. Nilanjan Banerjee served as resource persons

Total Participants : 40

#### **Responsibilities undertaken for the University**

- The lift in the RCC building of the University is maintained and operated by IMPACT Centre.
- Mr. Nilanjan Banerjee renders his duties as a technical assistant in the Computer Centre, Salt Lake campus.

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**JADAVPUR UNIVERSITY PRESS  
(Publications)**

Int. : 2457-2951  
Director : Professor Abhijit Gupta  
E-mail : pressju@gmail.com

**BOOKS PUBLISHED**

1. Dante Alighieri, *Norok (L'Inferno)*. Translated from the Italian into Bengali by Alpana Ghosh under the general editorship of Sukanta Chaudhuri, and third in the Italio-Bangla Anubad series.
2. Haruki Murakami, *Samudratate Kafka II* (wm°•n0«0Ō0«0 Umibe no Kafuka). Second volume, translated from the Japanese into Bengali by Abhijit Mukherjee.
3. Rui Zink, collection of short stories. Translated from the Portuguese into Bengali by Rita Ray.
4. Haruki Murakami, *Samudratate Kafka I* (wm°•n0«0Ō0«0 Umibe no Kafuka). Translated from the Japanese into Bengali by Abhijit Mukherjee. ISBN: 978-93-83660-25-4. Bengali. 382 pages. 2016. Rs 300, PB.
5. Sayantan Dasgupta and Kabita Lama, eds., *Call of the Hills: A Coursebook of Indian Nepali Literature in Translation*. ISBN 978-93-83660-06-3. English. 250 pages. 2016. Rs 250, PB.
6. Sangeeta Dutta and Subhoranjan Dasgupta, eds., *Tagore: The World as His Nest*. ISBN: 978-93-83660-14-8. English. 222 pages. 2016. Rs. 650, HB.
7. *Journal of the Moving Image* 13. ISSN: 2230-9160. English. Academic journal of the Department of Film Studies, Jadavpur University. *Journal of the Moving Image* seeks to represent critical work on the state of contemporary screen cultures, addressing a broad set of issues ranging from formal properties of the moving image to the social foundation of its production, transmission, and reception. There is a special focus on India and South Asia, and on issues of transnational media transactions.

The brochure for Jadavpur University has also been compiled, designed and published in this period

**FORTHCOMING TITLES IN 2017-18**

**Summer (Apr-Jun)**

- H. Dutta, *Lieut. Suresh Biswas: His Life and Adventures*
- Samir Saha, *Halden*

**Monsoon (July-Sep)**

- Hariprava Takeda, *The Journey of a Bengali Woman to Japan and other essays*, trans. Somdatta Mandal
- J. H Broomfield, *Elite Conflict in a Plural Society*
- Ursula le Guin, *Irasindhur ek jadukar*, trans. Sudeshna Datta Chaudhuri



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### **Winter (Nov-Jan)**

- Various hands, *Tagore Graphic Anthology* (with HarperCollins)
- D. N. Bandyopdhyay, *Evolving India: Phanerozoic Eon; A Book on Stratigraphy*
- Proceedings of international conference of the Mechanical Engineering Department, JU
- *Lamp in the Lotus: A History of Jadavpur University*

### **EVENTS**

*Kolkata Book Fair 2017 (Jan-Feb 2017)*

1. Participated in the Kolkata Book Fair.
  - a. Designed and decorated the stall with the help of student volunteers, provided a space to retail JUP and NCE Bengal books. JUP employees staffed the stall for the entire period of the book fair, representing Jadavpur University in one of the largest book fairs in the world today.
2. New Delhi World Book Fair (Jan 2017)
  - a. Participated in the New Delhi World Book Fair, at the invitation of the Association of Indian Universities. Books and a representative from the Jadavpur University Press (Publications), Devalina Mookerjee travelled to Delhi. The stall was staffed by her, and members of other universities who shared stall space.
3. Launch of *Samudratate Kafka* vol. 2
  - a. At the Kolkata Book Fair 2017, with the Director-General of the Japan Foundation from Delhi, and the Vice-Consul of Japan at Kolkata attending the event, among others.
4. Launch of *Norok*
  - a. At the Kolkata Book Fair 2017
5. Launch of *Ek dojon Rui Zink*
  - a. At the Kolkata Book Fair 2017. The author of the original volume, Rui Zink, travelled from Portugal to attend the event.

### **PRESS COVERAGE**

The activities of JUP were widely covered in both the English and Bengali-language press. Following are the links to some of the articles:

Consulate General of Japan in Kolkata: [http://www.kolkata.in.emb-japan.go.jp/itpr\\_en/00\\_kafkabookrelease.html](http://www.kolkata.in.emb-japan.go.jp/itpr_en/00_kafkabookrelease.html)

The Seagull School: <https://theseagullschool.wordpress.com/2015/08/19/a-visit-to-the-jadavpur-university-press/>

Campus Diaries: <https://campusdiaries.com/stories/5-reasons-ju-press-is-one-of-indias-best-publication-houses>

Anandabazar: <http://www.anandabazar.com/supplementary/pustokporichoi/bengali-native-weaponry-1.419387>

The Indian Express: <http://indianexpress.com/article/lifestyle/books/meet-the-team-behind-the-first-indian-language-version-of-haruki-murakamis-kafka-on-the-shore/>

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The Hindu: <http://www.thehindu.com/todays-paper/tp-in-school/waterbodies-fall-prey-to-urbanisation/article7330663.ece>

The Telegraph: [http://www.telegraphindia.com/1160812/jsp/opinion/story\\_101916.jsp#.V9anWft97IU](http://www.telegraphindia.com/1160812/jsp/opinion/story_101916.jsp#.V9anWft97IU)

### BACKLIST

1. *Tamang Selo: A Coursebook of Indian Nepali Literature in Translation*. ISBN: 978-93-83660-05-6 Nepali/English. 201 pages. 2015. Rs 200. - The Tamang song in the Nepali language is called Tamang Selo. The repository of Tamang literature is largely oral, embodied in the songs and tales that are handed down from generation to generation. -This pioneering bilingual volume seeks to showcase the genre by archiving and making available in English translation a representative body of folk songs about everyday love, life and nature coalesced into a form that touches the heart of Tamang belief and practice.
2. Pulin Behari Das, *Astracharchaa: Pulin Behari das Rachanasamgraha*; eds. Deeptanil Ray and Nikhilesh Bhattacharya. ISBN: 978-93-83660-13-1. 516 pages. Rs 700. 2015.
3. Mohit Ray, *Five Thousand Mirrors: The Water Bodies of Kolkata*. ISBN: 978-81-926767-7-7. 324 pages. Rs 495. 2015.
4. P.B. Shelley, *Kaaler joyjatra*. trans. Malini Bhattacharya. A translation of P. B. Shelley's *The Triumph of Life*. ISBN: 978-93-83660-04-9. 95 pages. Rs 150. 2015.
5. Madhumita Chattopadhyay and Tirthanath Bandyopadhyay, eds., *Ethics: An Anthology*. ISBN: 978-81926767-9-1. 260 pages. Rs 450. 2015.
6. Amiya Bandhyopadhyay, *Khanasmriti*. ISBN: 978-81-927525-8-7. 170 pages. Rs 150. 2014.
7. Tushar Kanti Sarkar, Shefali Maitra and Indrani Sanyal, eds., *Wittgenstein: jagat, bhasa o chintan*. ISBN 978-81-86954-96-6. Rs 350. 2013.
8. Madhabendranath Mitra, Amita Chatterjee and Prayas Sarkar, eds., *Manodarshan: sarirbad o tar bikalpa*. ISBN 978-81-86954-98-0. Rs 300. 2013.
9. Amita Chatterjee, ed., *Bharatiya dharmaniti*. ISBN 978-81-86954-99-7. Rs 350. 2013.
10. Robert Antoine and Hrishikesh Basu, trans., *Aeneid*. ISBN 978-81-86954-93-5. Rs 400. 2013.
11. Amlan Das Gupta, eds. and trans., *Henry Sargent's Aeneid of 1810*. ISBN 978-81-86954-92-8. Rs 200. 2013.
12. Ashutosh Roy, *Amar cheen probash*. With an introduction by Prof. Amit Bhattacharya. ISBN 978-81-86954-97-3. Rs 100. 2013.
13. Sukanya Dasgupta, ed. *Aspects of Modernity: American Women's Poetry*. ISBN 978-81-927525-9-4. Rs 550. 2014.
14. *Essays on Half-tone Photography* by Upendrakishore Raychowdhury. ISBN 978-81-927525-5-6. Rs 300. 2014.
15. Bidhusekhar Shastri Bhattacharya, *Rabidrasanglapkanika o onannyo rochona*. ISBN 81-86954-66-X. 210 pp. Rs 170. 2011.
16. Niccolo Machiavelli, *Rajpurush*, trans. Doyeeta Majumder, with an introduction by Swapan Chakravorty. A translation of Niccolo Machiavelli's *Il principe*, translated from the original Italian. ISBN 978-81-86854-76-7. 156 pp. Rs 270. 2012.

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17. Leonardo da Vinci, *Shilpachinta*, trans. and ed. Sukanta Chaudhuri. A translation from Leonardo's writings and sketches on art. ISBN 978-81-86854-77-5. 87 pp. Rs 200. 2012.
18. Supriya Chaudhuri and Sukanta Chaudhuri, eds., *Petrarch: The Self and the World*. ISBN 978-81-86854-91-1. 252 pp. Rs 495. 2012. [Distributed by Orient Blackswan]
19. Madhuja Mukherjee, ed., *Aural Films Oral Cultures: Essays on Cinema from the Early Sound Era*. ISBN 978-81-86854-81-2. 216 pp. Rs 450. 2012 [Distributed by Orient Blackswan]
20. Gangadhar Kar Nyayacharya, *Tarkabhasha*, Vol. I; 398 pp.; ISBN 978-93-80336-67-1; Rs 450. 2012 [Distributed by Mahabodhi Society]
21. Sumitra Mukherjee and Sujata Roychoudhury, *Aspects of Interpersonal Communication* (Self-Empowerment Series, general editor: Soumitra Basu). ISBN 978-81-86954-82-9. 133 pp. Rs 100. 2012.
22. Subhrangshu Aditya, Sahana Nag and Susmita Chatterjee, *Ragaragir paristhiti kibhabe saamalno jay* ('Nijer bikasher jonyo' granthamala, general editor: Soumitra Basu). ISBN 978-81-86954-83-6. 106 pp. Rs 100. 2012.
23. Sumitra Mukherjee and Sujata Roychoudhury, *Kathopakathan o taar nanan aangik* (Nijer bikasher jonyo' granthamala, gneral editor: Soumitra Basu). ISBN 978-81-86954-84-3. Rs 100. 2013.
24. Subhrangshu Aditya, Sahana Nag and Susmita Chatterjee, *Managing Anger-Provoking Situations* (Self-Empowerment Series, general editor: Soumitra Basu). ISBN 978-81-86954-85-0. Rs 100. 2013.

#### **STAFF**

Hony. Director: Prof. Abhijit Gupta; Hony. Joint Director: Dr Rimi B. Chatterjee; Development Editor: Dr Devalina Mookerjee; Copy-editor and designer: Smt. Urmi Rupa Pal

The catalogue of JUP may be found at [http://www.jaduniv.edu.in/new\\_upload/JUP.pdf](http://www.jaduniv.edu.in/new_upload/JUP.pdf). Find us on Facebook at <http://tinyurl.com/obwr4qd> and on Twitter at [https://twitter.com/ju\\_press?lang=en](https://twitter.com/ju_press?lang=en)

email: [pressju@gmail.com](mailto:pressju@gmail.com); Tel: 033-2457 2951

#### **DISTRIBUTION**

JUP books are available at the following outlets:

College Street: Dey's, Dhyanbindu

Jadavpur: Study, Boiwala

New Delhi: People Tree

Web: Flipkart

Select JUP titles are distributed by Orient BlackSwan, Mahabodhi Society and Alphabet Books.

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**REGIONAL CENTRE  
NATIONAL AFFORESTATION & ECO-DEVELOPMENT BOARD  
(Ministry of Environment, Forests & Climate Change, Govt. of India)**

Phone : 2414-6979/6886  
Int. : 2457 -2324  
Coordinator : Professor Asis Mazumdar

**1. B. Number of Faculty Members/Scientists :**

01 (Coordinator) + 01 (Sr. Scientist) + 1 (Jr. Scientist) + 1 (Research Assistant)

**2. A. Area of Research Activities:** (Broad Areas)

1. Afforestation & Eco-development
2. Joint Forest Management
3. Forest Development Agency
4. Green India Mission
5. Small & Micro Forest Enterprise
6. Soil & Moisture Conservation
7. Indigenous Technologies
8. Capacity Building & Forest Conservation
9. Wasteland Development & Biodiversity Conservation
10. Soil Water Plant Relationship
11. Impact of Forested Watershed on Stream Flow and Water Quality
12. Watershed Management
13. Natural Resources Management
14. Clean Development Mechanism
15. Carbon Sequestration
16. REDD+

**B. Major Research Project:**

<b>Coordinator</b>	<b>Name of the Project</b>	<b>Funding Agency</b>
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Prof. (Dr.) Asis Mazumdar	Landscape Survey and Capacity Building for preparation of microplan in selected landscape of West Bengal for Preparation of Perspective Plan under Green India Mission in West Bengal	Directorate of Forests, Govt. of West Bengal
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	Implementation of Medicinal Plants Conservation area in Kakrajhore, West Midnapore, West Bengal	Silviculture (South) Division, Directorate of Forests, Govt. of West Bengal
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	Preparation of Local Volume Table for Roadside Trees of Selected Species. West Bengal	Forest Development Cooperation, Directorate of Forests, Govt. of West Bengal
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**3. A. Invited Lecturers Delivered/Sessions Chaired:**

**Name of the Teacher/Scientist/Type of participation/Name of the Seminar Conference etc/Place/Duration**

**Dr. Sanjay Bala**

Resource Person Environment, Livelihood & Communication Protocol Jadavpur Univeristy, July, 2016

Resource Person Inter-Disciplinary Course on “Disaster Management” Jadavpur Univeristy, Oct. 20 – Nov. 11, 2016

**B. Seminar/Workshop/Conference/Symposium Attended:**

**Name of the Teacher/Scientist Name of the paper presented (if any)/Name of the Seminar/Place/Duration**

**Dr. Sanjay Bala**

(Ms. Rupa Shaw Sanyal) Prof. Asis Mazumdar Promotion of Homestay and Agritourism for Sustainable Economic Growth – Learning from Malaysia, International Conference on Lifelong Learning in Developing Countries: Issues & Perspective, Kalyani Univeristy 17-18 February 2017

(Ms. Rupa Shaw Sanyal) Dr. Sanjay Bala Prof. Asis Mazumdar Learning by Retrieving Inherited Knowledge of Traditional Practitioners on Medicinal Plants in West Medinipur, West Bengal International Conference on Lifelong Learning in Developing Countries: Issues & Perspective, Kalyani Univeristy, 17-18 February 2017

(Ms. Rupa Shaw Sanyal) Dr. Sanjay Bala Prof. Asis Mazumdar Pathway Towards Drug Discovery - a Case Study Deploying Phytosociological and Ethnopharmacological Assessment around Mayurjharna 2 days National Conference on Advances in Interdisciplinary Sciences 2017 (NCAISC 2017) Calcutta University, 27-28 January 2017

(Ms. Rupa Shaw Sanyal) Dr. Sanjay Bala Prof. Asis Mazumdar Acquisition And Dissemination Of Traditional Knowledge On Medicinal Plants - For The Enrichment Of The Society UGC-Sponsored National Seminar on “ Medicinal Plants, Health and Environment”, Calcutta University, 9-10 September 2016

(Ms. Rupa Shaw Sanyal) Dr. Sanjay Bala Prof. Asis Mazumdar Ethnobotanical Usage and Phytochemical Screening of Satavari (*Asparagus racemosus* Willd.) National Seminar on “Analytical Techniques for Drug Discovery & Development from Natural Products”, Jadavpur University, 24 September 2016

(Ms. Rupa Shaw Sanyal) Dr. Sanjay Bala Prof. Asis Mazumdar Adoption of Contemplative Pedagogy in Teaching of Medicinal Plants with Their Ethno-Botanical Use UGC Sponsored National Seminar on Teaching Botany In 21<sup>st</sup> Century: Prospects and Challenges, Calcutta University, 6-7 August 2016

#### 4. B. Articles Published in Journals:

##### *International*

**Name of the Author Name of the Article Name of the Journal Volume and Page no./Date of Publication**

S. Biswas, R. Shaw, S. Bala, A. Mazumdar Inventorization of Some Ayurvedic Plants and their Ethnomedicinal Use in Kakrajhore Forest Area of West Bengal, Journal of Ethnopharmacology, 197, 231-241. 2017

R. Shaw, S. Bala, A. Mazumdar Indigenous Knowledge of Ethnic Community on Usage of Satavari (*Asparagus racemosus* Willd) and its Preliminary Screening Journal of Experimental Research and Review. 7, 62-68, 2016

#### 6. Major Achievements:

- The Regional Centre over the years has played significant role in Human Resources Development Activities by organizing over 189 workshops, 234 Training Programmes for thousands of participants of the State Forest Departments (West Bengal, Jharkhand, Bihar, Sikkim and Andaman & Nicobar Islands) as well as for the grass root level Community / Organizations.
- Conducted more than **140** important **Research Studies** and 25 Success Stories/Case Studies covering a wide spectrum of pertinent issues on Natural Resources Management in Eastern Region.
- Carried out the field monitoring and evaluation work for over **367 Centrally Sponsored Projects** (AOFFP, IAEDP, NTFP, IPVM, Sample Check etc.) in last 10 years throughout the Country.
- Prepared **4 Status Reports** on Natural resources of three different states and also several Wasteland Maps.
- Developed cost-effective Agro-forestry model for Red Lateritic Wastelands and Biological Reclamation for abandoned Collieries model.
- Formulation of **Joint Forest Management Strategies and Norms for the Union Territory of Andaman & Nicobar Islands** under the sponsorship of Andaman & Nicobar Administration.
- The Centre has evaluated **64 projects of National Afforestation Programme (NAP)** implemented through Forest Development Agencies (FDAs) in Arunachal Pradesh, Assam, Bihar, Orissa, Mizoram, Manipur, Sikkim, Uttar Pradesh and West Bengal.
- Organized **five “Refresher Course for Indian Forest Service (IFS) Officers”** in association with the School of Water Resources Engineering, Jadavpur University, which is unique among the Regional Centres of NAEB.
- Developed the **“Strategic Plan and Financial Framework for Large-Scale Development Programme of Sundarban Biosphere Reserve”** funded by Sundarban Biosphere Reserve (under UNDP project).



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- Established the first **Small and Micro Forest Enterprise (SMFE)** in India under Dhalbhum FDA, East Singhbhum, Jharkhand and replicated the same in **Seraikela Forest Division in Jharkhand** and **Purulia Forest Division in West Bengal**.
- Registered as **one of the 25 Business Incubators** by Ministry of Small and Micro Enterprises (MSME) to promote innovative ideas and young entrepreneurs and currently 5 such ideas are being implemented.
- Prepared the “**State Report on National Programme on Promoting Medicinal Plants Conservation and Traditional Knowledge for Enhancing Health and Livelihood Security for West Bengal (UNDP-CCF-II Project No. 13047)**” funded by Research Circle, Directorate of Forests, Govt. of West Bengal.
- Implemented project on “**Strategic Knowledge Management, Advisory Support and Capacity Building for Wood Based SMEs to Enhance Market Potential through Sustainable Business Practices**” funded by WWF-India, New Delhi as part of EUROPEAN Commission - SWITCH ASIA project on Sustainable and Responsible Trade Promoted to Wood Processing SMEs through Forest and Trade Networks in China, India and Vietnam.
- Prepared 2 reports on “**Meta Evaluation of Different Evaluation Programmes on NAP Implemented through FDAs in India**” based on evaluation reports of all Indian states.
- Conducted a consultative study on “**Landscape Survey and developing Micro-plan for enhancement of Forest Quality and improvement of Ecosystem Services in the Identified Districts of Odisha**” in partnership with Indian Institute of Forest Management (IIFM) funded by Department of Forests, Government of Odisha under **Green India Mission**.
- Conducted “**Evaluation of Central Sponsored Schemes implemented by Sundarban Biosphere Reserve**” funded by Sundarban Biosphere Reserve, Directorate of Forests, Govt. of West Bengal.
- Completed **mid-term evaluation of activities implemented (2009-10 to 2014-15) in the state of Sikkim by ‘State CAMPA’**, Sikkim, Forests, Environment & Wildlife Management Department, Govt. of Sikkim in 2016
- Completed “**Examination of Microplans and Compilation of APOs in the state of West Bengal**” funded by West Bengal Forest and Biodiversity Conservation Project, Directorate of Forests, Government of West Bengal.
- “**Technical assistance for evaluation of NAP implemented through WBSFDA in West Bengal**” funded by WBSFDA, Directorate of Forests, Government of West Bengal
- Technical Assistance for “**DPR preparation for ‘Forestry Interventions for Clean Ganga in the state of West Bengal**” funded by WBSFDA, Directorate of Forests, Government of West Bengal

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- Conducted a consultative study on **“Landscape Survey and Capacity Building for preparation of microplan in selected landscape of West Bengal for Preparation of Perspective Plan under Green India Mission in West Bengal”** funded by Directorate of Forests, Govt. of West Bengal

### **RURAL & CRYOGENIC TECHNOLOGIES**

Phone: 2414-6747/6735/6965

Int.: 2457-2585

Director: Prof (Dr). S.C.Sarkar

E.mail : director.crct@gmail.com,

admn.crct@gmail.com

rct.centre@jadavpuruniversity.in

**Funded By: Department of Higher Education, Science & Technology and Bio-technology, Government of West Bengal**

- 1. Number of Associated Faculty Member : 08**
2. Keeping in view of the recommendation of **National Committee of Science and Technology** set up by Government of India in 1973, **Advanced Centre of Cryogenic Research – Calcutta (ACCR)** came into being on 2<sup>nd</sup> November 1979 as a R & D Institute of Cryogenics. As per the **advise of the Department of Science & Technology**, Government of West Bengal , the Centre was renamed as **Centre for Rural & Cryogenic Technologies (CRCT) w.e.f. February11, 2005 for making it a more meaningful.. The Centre is an affiliated unit of Jadavpur University and academically recognized for offering Ph.D Degree under faculty of interdisciplinary studies, Law & Management (FISLM).**
- 3. Area of Research :**

Promoting research in the filed of cryogenic and allied science for its potential development in education & training towards spread of knowledge in the multi-dimensional fields for the improvement of the human society. The work aimed at solving the difficulties of the society, planning of education and training to create trained man power for the cryogenic science, cryopreservation including rural technology and the other relevant areas by utilizing knowledge of the this front line discipline.

#### **A. Research Activities under :-**

- i) Cryogenics in production, maintenance, measurement, control and its utilization for scientific investigation.**

## **Annual Report 2016-17**

- ii) Investigation of phenomena, techniques and concepts of fertilizer, steel, petrochemicals, material science, gas purification, environmental science, agricultural chemistry, food science, biology, chemicals & pharmaceutical science.
- iii) Defense, atomic energy and space science.

**The Centre has main three active wings:-**

### **I. CRYOTECHNOLOGY DIVISION.**

### **II. CRYOBIOLOGY DIVISION**

### **III. CRYOINSTRUMENTATION DIVISION.**

#### **B. Work Done at Cryotechnology Division :-**

Requisition from Department of Food Technology & Biochemical Engineering the Cryotechnology Division was involved in some collaborative study about the Neurotoxic potato chips available at present market.

Study included raw potato flex dusted under cryogenic grinding which involve a special instrumental device (a highly insulated grinding chamber) and feed Liquid Nitrogen under controlled atmosphere. After cryogrinding the post dusted potato material was kept under observation for next parametrical study. A chemical produced in high heat cooked foods called acryl-amide is a neurotoxin with serious health concerns. Because fried potato chips are the richest source of acrylamide. Acrylamide is produced when starchy foods such as potatoes and flour are baked, fried, deep-fired or micro-waved. Perhaps not surprisingly potato chips and crisps have the highest acrylamide level of any food. Boiling or steaming, on the other hand, does not produce acrylamide. We may not consume enough acrylamide in a single meal to have an acute and obvious neurotoxic effect. Today's the developing countries, food consumption has evolved towards packaged foods that offer little nutritional value, such as fried potato chips, one of the most routinely and commonly consumed unhealthy foods containing the highest levels of acrylamide, especially potato chips. Frequent, consumption of fried potato chips might overload the body with acrylamide through its accumulation within the tissues thus contributing to the onset of diseases.

#### **Ph.D Course work :-**

Research Scholar Sri Debajyoti Roy Chowdhury attended his viva-voce after completion one semester period course work on Research Methodology which included quantitative methods and computer application as per guideline of revised Ph.D Regulation of Jadavpur University.

#### **Research Programme 2016 -2017**

Different Research programme were conducted in the Institute. A few students are being provided a small assistance and being encouraged for enrolling for Ph.D.

#### **C. Work carried out under the guidance of Professor B K Chowdhury at Cryoinstrumentation Division in collaboration with Cryotechnology Division.**

### **Annual Report 2016-17**

1. Development of Graphene based ferroelectric metal oxide polymer composites for low temperature sensor and biomedical applications.
2. Development of pailter module or thermoelectric power based mini refrigerator cooling devices.
3. Development of cross linking polymer based sole gel method for purification and desalination of saline water.

Conductive gel composites are attracting considerable attention because of their interesting electrical and mechanical properties. The interest in hydrogels has been growing rapidly due to remarkable improvements in gel modulus ductility, swelling ratios and toughness which have great importance for soft matter science, tissue engineering and regenerative medicine. Moreover, the range of properties available increases greatly for hydrogel composites. We have prepared conductive gel composites constructed using only colloidal particles as building blocks. The composites were prepared from mixed dispersions of PVA/PVP – Graphene oxide nanoplatelets. MGs are crosslinked pH-responsive polymer colloid particles that swell when the pH approaches the pKa of the particles which is important for drug delivery. Our intension is to use these hydrogels for the purification of water (removal of heavy metal ions, salinity etc).

4. Development of waste fish scale based pure nano hydroxyapatite for biomedical and cosmetic application.

#### **D. Academic Programme executed during the year 2016 -17 :-**

##### **Seminar/Symposium/Workshop :**

The Institute conducted an expert lecture on **Status of accreditation of testing and calibration laboratories including Cryogenic & Superconductivity** on **31<sup>st</sup> March, 2017** under the Banner **AN EXPERT LECTURE - 2017**.

The Director Prof (Dr) Swapan Chandra Sarkar while delivering his inaugural address introduced the Honourable Speaker Professor (Dr) N D Das for the expert lecture - 2017 on status of accreditation of testing and calibration laboratories to the audience at new seminar room Department of Chemical Engineering, Jadavpur University. Initially, before joining DST, Government of India Dr N D Das served as a scientist at Central Mechanical Engineering Institute, Durgpur. He was at the helm of Science of Technology affairs in Science & Technology Department, GOI for more than two decades and rose to the Adviser. He contributed significantly for the promotion of research and development in Science & Technology throughout the country. During his tenure Cryogenics has got an important place for funding as a separate wing under the programme advisory group of Mechanical Engineering Division. He has also done commendable work in the field of quality auditing, total quality management for the calibration and standardization of laboratories in India on behalf of Department of Science & Technology in the last part of his service life. He is still serving as Professor and Dean for different engineering institution in advisory capacities. The said expert lecture and interaction meeting were attended by Students , Scientists /Faculty Members

## **Annual Report 2016-17**

from reputed institute, like Indian Association for the Cultivation of Science, Department of Instrumentation Science, APC College, CIEM, KM College, Ganikhan Institute of Technology, Large cross section of students, Research Scholars, and young scientists also participated in deliberation. The lecture was highly appreciated by all who participated in Seminar room.

### **Memorial Lecture :**

**Prof(Dr) S C Sarkar, Director, CRCT** delivered the prestigious “**Acharya Prafulla Chandra Roy Memorial Lecture**” on 13<sup>th</sup> November, 2016 at **1<sup>st</sup> Regional Science & Technology Congress- 2016**. Presidency Division **Organised by Department Science & Technology, Government of West Bengal** at National Institute of Technical Teachers’ Training & Research (NITTTR), Kolkata. The programme were gaced the **Smt Reena Venkatraman Additional Chief Secretary**, Professor Ashis Banerjee Honourable Minister-in-Charge of **Science & Technology, Government of West Bengal** and galaxy of Scientists & Academician of various Institute/university around, Kolkata. The lecture was well appreciated by audience.

### **Arrival of Cold Facts Journal**

Cold Facts is an international publication for cryogenics users, researches and student. It is the only magazine exclusively dedicated to the Science & Technology of very low temperatures as well as focuses on cryogenic engineering and applications. **Cold Facts** bring news about meeting and detailing with advances on such subjects as helium cryogenics, cryomagnets, cryocoolers, cryogenic dewars, pulse tubes, instrumentation.

### **E. Publication :-**

- i)** A noval biocompatible conducting polyvinyl alcohol (PVA) – polyvinyl pyrrolidone (PVP) –hydroxyapatite(HAP) composite scaffolds for probable biological application (Materials Letters, 2017).
- ii)** Myoblast differentiation and protein expression in electrospun graphene oxide (GO) – poly ( $\epsilon$ -caprolactone, PLC) composite meshes (Materials Letters, 2017, accepted)

### **F. Academic Activities**

#### **i) Paper-setter of Calcutta University**

Professor (Dr) S C Sarkar act as an paper setter at Calcutta University.

#### **ii) Paper-Reviewer**

International paper reviewed for reputed journal under engineering

#### **iii) Member**

Professor (Dr) S. C. Sarkar has been invited to serve as a member for different society on cryogenic.

## **Annual Report 2016-17**

### **SYLFF PROGRAMME**

Int. : 2457-2389

Director : Professor Joyashree Roy

In 2003-2004, Jadavpur University became the First Indian University among the 69 SYLFF (The **RYOICHI SASAKAWA YOUNG LEADERS FELLOWSHIP FUND**) Institutions across 44 countries to earn **SYLFF** status and receive an endowment of one million US dollars (US\$1,000,000) from the Nippon Foundation. The JU-SYLFF program provides a unique opportunity for students in Social Sciences and Humanities as fellowships are awarded to postgraduate students whose studies focus on the broad theme: Tradition, Social Change and Sustainable Development and those which adopt a Holistic Approach, that is, any issue or problem relevant to contemporary Indian society. It provides unique research opportunity to the postgraduate students of the M. A. and M. Phil. and Ph. D. level and is one of the highest-valued scholarships in India.

#### **JU-SYLFF Fellows: work in progress**

1. ReepPandiLepcha
2. PurbashaAuddy
3. SudeshnaDutta
4. Sujaan Mukherjee
5. Abhijit Sadhukhan
6. Sawon Chakraborty

#### **JU-SYLFF SRA Awardee:**

1. Reep Pandi Lepcha: Visited University of Tartu, Estonia and University of Leiden, Netherlands.

#### **Orientation Courses Organized:**

The annual Sylff Pre-Application Orientation was held at Professor Anita Banerjee Memorial Hall on 14<sup>th</sup> September, 2016. The objective was to encourage and guide students to develop a research oriented mind. During the day, participants were introduced to the various facets of the Sylff programme: its goals, multidisciplinary approach, leadership initiatives, social action programs et al. The programme was initiated with a speech by the Sylff Steering Committee Chairman, Professor Suranjan Das, Vice Chancellor, Jadavpur University, followed by a presentation by the JU-Sylff Project Director, Professor Joyashree Roy. Sylff experts Professor Partha Pratim Basu, Department of International Relations and Professor Kavita Punjabi, Department of Comparative Literature, then conducted an interactive Q&A session with the participants. Current fellows also shared their experience of being part of the programme and provided insights on their areas of research. The event was concluded with the unveiling of the Sylff Newsletter in the presence of the Vice Chancellor and other dignitaries.

#### **Lecture Series Organized:**

**The JU- SYLFF Lecture Series** was started in April 2016. The idea was to involve academic experts and graduate SYLFF fellows for the academic enrichment of the SYLFF community and university students in general. An overview of the lectures delivered:



### **Annual Report 2016-17**

- On 26<sup>th</sup> April, 2016, Dr. Partha Pratim Basu, Professor in the Department of International Relations, Jadavpur University, delivered a lecture on *Discourse Analysis*.
- On 28<sup>th</sup> June, 2016, Dr. Shyamasree Dasgupta, Assistant Professor at School of Humanities and Social Sciences Indian Institute of Technology, Mandi (Himachal Pradesh), delivered a lecture titled *The Role of Psycho-cultural Perspectives in Economics Valuation*.
- On 26<sup>th</sup> July, 2016, Dr. Sulagna Maitra, Lecturer in Humanitarian Action, UCD Centre for Humanitarian Action, University College Dublin, delivered a talk titled *Role of Identity in Transboundary River Conflict Resolution*
- On 11<sup>th</sup> November, 2016, Debdatta Chowdhury, Assistant Professor of Gender Studies, Centre for Social Sciences, Calcutta delivered a lecture titled *Making Sense of Common Sense: Life and Livelihood Challenges across the West Bengal – Bangladesh border*.
- On 22<sup>nd</sup> February, 2017, Rev. David Ito, Professor of Clinical Spiritual Care, Program of Death and Life Studies in the Graduate School of Applied Religious Studies, Sophia University, Tokyo, Japan, presented a lecture on *The Quality of Life in Human Care*, at the Committee Room No. 1, Aurobindo Bhavan.
- On 6<sup>th</sup> April, 2017, Shekhar Bhowmick, Associate Professor, Vidyasagar College, Kolkata, presented a talk on *Pilgrimage and the Panda's Register: History of a different sort*.

The JU-SYLFF Association has also published the 10<sup>th</sup> issue of **Fellows**, the annual newsletter.

As a part of its **Social Action Programme**, JU-SYLFF fellows visited The Premananda Leprosy Mission Hospital on 7<sup>th</sup> January, 2017. The JU Sylff Association presented the residents with some basic medical supplies along with items of décor like flowering pots, wall hangings and posters. The fellows spent the day with the inmates and also organized lunch for them. Later in the day, a film was screened for the patients and staff there, which they thoroughly enjoyed. It was an enriching experience for the Fellows and mentors to be able to reach out beyond the realm of academics and contribute to the community in small ways.

#### **Activities of JU-SYLFF Fellows :**

1. Madhuchanda Ghosh

#### **Books/Monographs Published :**

- Book Chapter entitled : "India's Economic Dynamism and India-Japan relations," in Takenori Horimoto (ed.) *Introduction to Contemporary India-Japan relations*, University of Tokyo Press, March 2017

2. Shyamashree Dasgupta

#### **Seminar/Workshop/Conference/Symposium Attended:**

- Visiting Researcher in Energy Studies Institute, National University of Singapore, Singapore in December, 2016.
- Presented the paper "*Energy use Behaviour of Manufacturing Industries in India: An Analysis using KLEMS framework*" in the Seventh National Seminar on Annual Survey of Industries organized by Central Statistical organization, Industrial Statistics Wing, Ministry of Statistics and Programme Implementation, Government of India. Kolkata, India. (26<sup>th</sup> September 2016).

## **Annual Report 2016-17**

- Seminar on “Analyzing long-run trends of energy demand in the manufacturing industries in India” at Energy Research Institute, National University of Singapore, Singapore (8<sup>th</sup> August, 2016)

### **Articles Published in Journals:**

- Dasgupta, S., Satija, S. and Gauba, P. (2017). “Energy use Behaviour of Manufacturing Industries in India: An Analysis using KLEMS framework”. *Journal of Industrial Statistics*. 6(1), 72-88.2017.
- Dasgupta, S. and Roy, J (2016). “Analysing energy intensity trends and decoupling of growth from energy use in Indian manufacturing industries during 1973-74 to 2011-12”, Article in Press. DOI 10.1007/s12053-016-9497-9. *Energy Efficiency*.
- Roy, J., Dasgupta, S. and Chakraborty, D (2017). “Deep decarbonisation in industries: what does it mean for India?” Wuppertal Institute’s brochure on the LCS-RNet conference 2016. Wuppertal Institute for Climate, Environment and Energy, Wuppertal, Germany.

### **3. Rimple Mehta**

#### **Major Research Project:**

- March 2016- present: Researcher for a Harvard University South Asia Institute project “The 1947 Partition of India: The Demographic and Humanitarian Consequences”
- March 2016- February 2017: Researcher for a School of Women’s Studies, Jadavpur University project titled “Love, Law and Labour: Child Marriage in West Bengal; focus of research being Cross-Border Child Marriages along the Indo-Bangladesh border.

#### **Seminar/Workshop/Conference/Symposium Attended:**

- Presented a paper titled “Time is on My Side: Negotiating Space and Time in Prison” at international workshop titled “Critical Prison Studies, Carceral Ethnography, and Human Rights: From Lived Experience to Global Action” organized by Debra Parkes (University of Manitoba), Gillian Balfour (Trent University), Joane Martel (Université Laval), Kelly Hannah-Moffat (University of Toronto in Mississauga), Dawn Moore (Carleton University) and Sarah Turnbull (University of Oxford) at International Institute for the Sociology of Law, Onati, Spain from 23-24 June 2016.
- Presented a paper titled “‘Illegal’ Bangladeshis in Akhand Bharat: A Shameful Other?” at international workshop titled “Race, Criminal Justice and Migration” organized by Border Criminologies, Centre for Criminology, University of Oxford, at University of Oxford, UK from 19- 20 September 2016.
- Presented a paper titled “‘Illegal’ Bangladeshis in Akhand Bharat: Inscriptions of race and religion on citizenship” at International seminar titled “Shifting Significations of Borders in Contemporary South Asia and the Americas” organized by the Centre for Studies in Latin American Literatures and Cultures (CSLALC) & Centre of Advanced Study (CAS), Dept. of Comparative Literature, J.U, from 19-20 January, 2017.
- Presented a paper titled “Inside Prison Walls: Resistance, Subversions, Negotiations” at XV National Conference on Women’s Studies, titled “Women in a Changing World: Restructured Inequalities, Countercurrents, and Sites of Resistance” organised by Indian Association of Women’s Studies at University of Madras, Chennai, from 22-25 January, 2017.

### **Annual Report 2016-17**

- Presented a paper titled “She Came to Stay: Bangladeshi Women in India Negotiate Cross-Border Child Marriages” at a Dissemination Meeting of the research project titled “Love, Law and Labour: Child Marriage in West Bengal” organised by the School of Women’s Studies Jadavpur University, on 23 February 2017.

#### **Books/Monographs etc. Published :**

- Mehta, R. Forthcoming. *Women, Mobility and Incarceration: Negotiating Social and Political Borders*. UK: Routledge.

#### **Articles Published in Journals:**

- Mehta R. (2016) ‘Borders: A View from ‘Nowhere’’, *Criminology and Criminal Justice*, 16(3), 286-300.

#### **Major Achievements:**

- 2016: Received a travel grant for a seminar in Spain in June 2016 under the “UGC GDA- Travel, Seminar and Visiting Fellow Scheme (XII Plan)”
- 2017: Nominated for the International Visitor Leadership Programme (IVLP) by the US Department of State

4. Nikhilesh Bhattacharya

#### **Seminar/Workshop/Conference/Symposium Attended:**

- Presented a paper, “Anglo-Indians: Lives Beyond Literature,” at an Anglo-Indian Studies Workshop, entitled “Nexus: Anglo-Indian Literature and Anglo- Indian life,” held at Jadavpur University, Kolkata, on 18-19 January 2017.

5. Aritra Chakraborty

#### **Seminar/Workshop/Conference/Symposium Attended:**

- Presentation given at the Annual Conference of Cambridge University Press, India, on new approaches to editing English Language Textbooks.

#### **Articles Published in Journals:**

- Book review: Shukla Sanyal, *Revolutionary Pamphlets, Propaganda and Political Culture in Colonial Bengal*. New Delh: Cambridge University Press, 2014 in *Sanglap: Journal of Literary and Cultural Enquiry*, Vol 2 (2)

6. Deeptanil Ray

#### **Articles Published in Journals:**

- Deeptanil Ray and Abhijit Gupta, “The Newspaper and the Periodical Press in Colonial India: Explorations in Early Media History,” in *Journalism and the Periodical Press in Nineteenth-Century Britain*. Edited by Joanne Shattock. Cambridge, UK: Cambridge University Press, 2017, 245-262.
- “Review of Isabel Hofmeyr, *Gandhi’s Printing Press: Experiments in Slow Reading*,” *SHARP News* [quarterly organ of The Society for the History of Authorship, Reading and Publishing], vol. 25, no. 2 (2016), 20-21.
- “Comics porar pnaachti sahaj upaay,” *Deepan*, Special Issue on Bengali Comics, edited by N. Julfikar, vol. 20, no.1-2 (2016), 129-140.

## **Annual Report 2016-17**

### **Major Achievements:**

- Guest Faculty, Department of English, Presidency University
- Received *Nidan* (Second Degree Black Belt) in Aikido, from the international aikido federation, Kokusai Aikido Kenshukai Kobayashi Hirokazu Ryu Ha (KAKKHRH), in December 2016.

7. Payoshini Mitra

### **Major Research Project:**

- Research Project on Sport, Sexual Harassment and Discrimination on the basis of gender identity, sexual orientation and intersexuality supported by Ministry of Youth Affairs and Sport, Government of India as the Project Director. The Project was hosted by School of Media, Communication and Culture, Jadavpur University.

### **Invited Lectures:**

- Invited as speaker at the 10th Gender Summit, Tokyo Japan. Invited to talk on Dutee Chand case at bastions law schools including National University of Juridical Sciences, Kolkata.

### **Major Achievements:**

- Directed a documentary on Sport and Sexual abuse: In the Name of Pride (2016)
- Was interviewed as the domain expert before and during the Rio Olympics by BBC Radio 5, Australian Broadcasting Corporation, The Times, London, Business Line, WYNC.org, New York on Issues related to the suspended Hyperandrogenism Regulations of the IAAF and IOC.

8. Anwasha Sengupta

### **Major Achievements:**

- Attended Persian language classes for two weeks in April 2016 at the International Centre for Persian Studies, University of Tehran, Tehran, Iran.

9. Nilanjan Das

### **Invited Lecture:**

- “Externalism and the Value of Information”, Formal Epistemology Workshop, Seattle, May
- “Self-Locating Belief and Knowledge Defeat”, Latinx Philosophy Conference, Rutgers, April
- “Buddhists against Inferentialism about Self-Knowledge”, Central Division Meeting of American Philosophical Association, March

10. Shounak Set

### **Invited Lecture:**

- Resource-person (11.03.17) for Special Lecture on “International Relations And Outer Space” at Loreto College, Kolkata

### **Seminar/Workshop/Conference/Symposium Attended:**

- Presented Paper, “Outer Space And Development: A Case Study Of The Indian Space Program”, at the National Seminar organized by Loreto College in December, 2016.

## **Annual Report 2016-17**

- Presented Paper, "Precedents, Probabilities And Prospects: Re-Imagining The India Australia Relations" at the 5<sup>th</sup> International Conference of Indian Association for Study of Australia in February 2017.
- Participated in 5 day Workshop on "History of Science and Technology" at Asiatic Society, Kolkata in February, 2017.
- Presented Paper, "Space Technology And Rural Development" at National Seminar organized by Dept. of Economics, SKBU in March 2017.

### **Articles Published in Journals:**

- Book Review: U.R. Rao, Inside the ISRO: Narrating the Indian Space Odyssey, India Quarterly, Vol 72, Issue 2, May 2016 (SAGE)

### **Major Achievements:**

- Resource Person for Soft Skill Development Course at SKB University.
- Selected as Jt.Coordinator for NET/SET Free Coaching at SKBU

11. Natasha Upadhyay

### **Major Achievements**

- Participant at the 61st session of the Commission for Status of Women at the UN in New York, March 13-24 through the Center for Women's Global Leadership, Rutgers University.

12. Soumya Bhowmick

### **Major Research Project:**

- Cultivation Of The Globalized World: *An Economic Analysis Of The 'Sense Of Globalization' In People*, May 2017, Antwerp, Belgium ; Advisor: Professor Giuseppe Attanasi, Faculty of Economics and Social Sciences, Lille University of Science and Technology, Lille, France.

13. Ritajyoti Bandyopadhyay

### **Articles Published in Journals:**

- R. Bandyopadhyay and R. Samaddar (2017): 'Caste and the Frontiers of PostColonial Capital Accumulation', in I. Mitra, R. Samaddar and S. Sen (eds), *Accumulation in Post-Colonial Capitalism*, pp. 189-215, Springer, DOI 10.1007/978- 981-10-1037-8.
- R. Bandyopadhyay (2017): 'Genealogies of Political Modernity', A Review of *Decolonisation and the Politics of Transition in South Asia* (ed), S. Bandyopadhyay, Orient BlackSwan, 2016, Book Review, XLI, 3.
- R. Bandyopadhyay (2017): 'Obstruction: Counter-Pedestrianism and Trajectories of an Infrastructure Public', *Decision* (Springer), 44 (2). DOI 10.1007/s40622-017- 0155-7

### **Collaborative Programmes:**

- Associated with a collaborative project on the social history of 'big-data' in India, as a lead author involving the researchers at the Mahanirban Calcutta Research Group, the University of Western Sydney, and Tata Institute of Social Science (TISS) Mumbai.

### **Annual Report 2016-17**

- Associated with a collaborative project titled *Entangled Urbanization: Capabilities and Informal Labour, Dignity and Deprivation*, funded by the Rockefeller Foundation.

#### **Major Achievements:**

- One of the founder members of a major Indo-German academic consortia titled *M.S. Merian-R. Tagore International Centre of Advanced Studies in the Humanities and Social Sciences*, housed at the Institute of Economic Growth, New Delhi.
- Invited as an ‘advisor’ to a Ford Foundation funded Project at the TISS Mumbai exploring the social life of small urban spaces.
- Associated with a research network titled *The Social Life of Commercial Trust: Comparative historical perspectives from Asia, Africa and Europe, 1600-1950*,

#### 14. Purbasha Auddy

##### **Seminar/Workshop/Conference/Symposium Attended:**

- Presentation on বাংলা সাময়িকপত্রের সন্ধানে (১৮১৮-১৮৬৭) or ‘In search of Bengali periodicals (1818-1867)’ at the researchers’ conference organised by the Department of Bengali, Jadavpur University, March 28-29, 2017
- Presentation on ‘A project to look into the narrative of the publication of the first fifty years of Bengali periodicals, 1818-1867’ at the international conference titled ‘Turning the Page: New Directions in South Asian Book History’ organised by the University of Chicago Center at Delhi, March 9-10, 2017
- Presentation on ‘Bibliography, digital file management and workflow’ in the group discussion on ‘The Making of the Bichitra Project: Online Variorum of Rabindranath Tagore’ at the international workshop on “Shakespeare Archiving, Digital Archiving and Textual Computing,” organised by the Department of English, and School of Cultural Texts and Records, Jadavpur University, November 29, 2016
- Easy Access for Rare Books: A Proposition’ at ‘Re-booting Public Libraries for the 21st Century to Recreate the Future,’ national seminar organised by the Department of Library and Information Science, University of Calcutta in collaboration with the University Grants Commission and Raja Rammohun Roy Library Foundation, March 3-4, 2016

#### 15. Sudeshna Dutta

##### **Seminar/Workshop/Conference/Symposium Attended:**

- Presented a paper in International XIXth Oral history Conference held in Bangalore from 27 th June-1 st July.
- Attended a Gian course , “ Oral history and the Art of Listening” from 9 th to 16 th November,2016.
- Attended National Level Workshop on “ Comparative Literature: Texts, Contexts, Concepts” organized by Centre of Advanced Studies (Phase-3), Comparative Literature Department, Jadavpur University from 22 nd to 24 th February,2017.

##### **Major Achievement:**

- Initiated an Indigenous Language Learning center in Kolkata.



## **Annual Report 2016-17**

### 16. Reep Pandi Lepcha

#### **Invited Lectures**

- Was invited as a delegate for a panel on Questions of Identity and Progress specifically dealing with North-East of India, at the Apeejay Kolkata Literary Festival.
- Invited as resource person to a one- day national seminar on Ethnicity and Development of Lepcha Primitive Tribe of Sikkim organized by Department of Anthropology, Sikkim University and Social Justice, Empowerment and Welfare Department, Government of Sikkim.

#### **Seminar/Workshop/Conference/Symposium Attended:**

- ‘Landscapes to Mindscapes: Engaging with the Personal and Impersona in Lepcha Folk Beliefs’ was presented at 6 th International Folklore Conference organised by Institute of Lithuanian Literature and Folklore Department of Estonian and Comparative Folklore, University of Tartu at Vilnius, Lithuania.
- ‘Dabbling with Kaleidoscopic Narratives: A Prerequisite for Comprehending the ‘forgotten’ History of Rongs/Lepchas’ was presented at 4 th International Conference on North-East India, Reframing India’s North-East People, Power and Perspectives, organized by Sikkim University.
- Participated in a one-day workshop on ‘Introduction to the Study of Linguistics and Training on Language Documentation’, organized by the Centre of Advanced Study, Department of English, Jadavpur University.

### 17. Sujaan Mukherjee.

#### **Seminar/Workshop/Conference/Symposium Attended**

- “Historical Pilgrimage: Brahmo Travel and the Narrativization of Space”, at the national seminar, “Modes, Motives, Motifs, and Conditions in Intra-Asian Travel”, 20-21 March 2017, Department of English, University of Delhi.
- “‘Labourer’s only library’: Funeral Inscriptions in Calcutta Cemeteries” at the international conference,;Turning the Page: New Directions in South Asian Book History;, held on 9-10 March 2017, University of Chicago Centre, New Delhi.
- “Deathly Excess in Titus Andronicus” at the international conference, “Shakespeare’s Ashes”,organized by the Shakespeare Society of India, Ashoka University, and British Council on 21, 22 October 2016.
- “Remembering Death: Questioning the Literary Urban Imagination” at the workshop, “Urban Futures and Urban Utopia in South-Asian Megacities: Narrative, Play, Planning” organized by Institute of Development Studies Kolkata & Utrecht University, Netherlands, on 25 July 2016.

#### **Articles Published in Journals**

- “‘One Great Graveyard of Memories’: Remembering Death in Kolkata’ in Presidency Historical Review 2, 1 (August, 2016): 13-30. ISSN: 24575058.
- Travels in Time: Kolkata through Postcards,’ in Coldnoon Cities: Mapping the Metropolis I (August 2016). ISSN 22789642, E-ISSN 22789650.
- “Captain Haddock in Calcutta (or, the story that Herge did not write but history did)”, in *Scroll Magazine*, 28 January 2017;

### **Annual Report 2016-17**

- “The story of the elusive man who made these fascinating pastel postcards of Calcutta”, 2 March 2017; “What 19th-century Calcutta’s street cries revealed about its food and politics”, in *Scroll Magazine*, 13 May 2017.

18. Abhijit Sadhukhan

#### **Seminar/Workshop/Conference/Symposium Attended:**

- Presented a paper on the Concept of Body in Buddhist Philosophy, in the ICPR Centre for Buddhist Studies, Jadavpur University, in October, 2016.
- Presented a paper on the Incarnation Theory of Chaitanya Deva in XIII Biennial Conference of Comparative Literature Association of India, in March 2017. This paper has been nominated for publication as a chapter in a Book. This is based on M.Phil Thesis.

19. Sreerupa Sengupta

#### **Invited Lectures:**

- Delivered a lecture on Gender Responsive Budgeting and Gender Mainstreaming in Community Development as part of the *International Certificate Program on Community Participation and Rural Development* organised by NIRD, Hyderabad – 4 January 2017.
- Delivered a lecture on Gender Mainstreaming at Sardar Vallabhbhai National Police Academy on 22 August 2016
- Delivered lectures to senior executives from banks and public sector enterprise; government officials from various state departments (Assam, Uttarakhand, Maharashtra, Odisha, Uttar Pradesh, Bihar, Chhattisgarh, Andhra Pradesh, Jharkhand) and officials from Asia-Pacific and SAARC countries. Topics covered - Decent Work Agenda and Gender Mainstreaming Strategies at Workplace, Integrating Gender in Rehabilitation and Resettlement action plans, Engendering Monitoring and Evaluation, Gender Responsive Budgeting, SDG and Gender.

#### **Seminar/Workshop/Conference/Symposium Attended:**

- Attended a consultative workshop organised by the National Women Commission to identify issues/themes for research/workshops for 2017-2018 on 29 March 2017.

#### **Seminar/Workshop/Conference/Symposium Organised:**

- Conceptualized and coordinated a sensitization workshop in Chandigarh on 12-13 December 2016 as part of the project on **Facilitating Replication of PM Awarded Initiatives in the States and UTs (2015-2017)**, supported by DARPG.
- Coordinator of a regional workshop for north eastern states in the Assam Administrative Staff College, Guwahati on 4-5 August 2016 as part of the project on **Facilitating Replication of PM Awarded Initiatives in the States and UTs (2015-2017)**, supported by DARPG.

#### **Articles Published in Journals:**

- Dr. Sreerupa Sengupta and Dr. Balbir Singh, “Breaking the cycle of malnutrition in India: *Surguja Fulwari*, Chhattisgarh and *Aman Persera*, Meghalaya”; *ASCI Journal of Management* (forthcoming volume)

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- Dr. Sreerupa Sengupta and Dr. Balbir Singh, “Right to consent: *Lado* Campaign, Madhya Pradesh”; ASCI Journal of Management (forthcoming volume)

#### **Major Achievements:**

- Course Director of **Management Development Program for Women Executives**, 16-20 January 2017.
- Course Director of **General Management Program for Women Scientists** (supported by Department of Science and Technology) 23 January – 3 February 2017.
- Course Coordinator of **Gender Policies and Audit** supported by Asian Development Bank (June 2016).
- Coordinated 2 programs on leadership skills for senior officials from Central Bank of India (November 2016 and January 2017)
- Member, recruitment committee for the selection of Social Development Experts for the project on *Establishment and Operationalisation of SLTC and DLTCs for HUD Department, Odisha*; supported by Government of Odisha, September 2016
- Advisor of Ms. Kankana Roy, researcher in Maulana Abdul Kalam Azad Institute of Asian Studies, Kolkata for the Occasional Paper on *India and Bangladesh- Plans and Policies for the Participation of Women in Technical and Vocational Training: A Comparative Study*. The Occasional Paper was published in April 2017.

20. Mayuri Banerjee

#### **Seminar/Workshop/Conference/Symposium Attended:**

- Presented a paper on India-Pakistan relations titled “India-Pakistan Relations: A narrative of Post-colonial identities” at a two day national conference jointly organized by Department of Political Science of Bombay University and JAIR in December 2016.
- Presented a paper on India-China relations titled “Territorial Anxiety in India-China Relations: Can BCIM come to rescue?” in a two day international conference organized by Kolkata Association of Asian Studies.

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### **LATE INCLUSION**

### **OFFICE OF THE DIRECTOR OF YOUTH WELFARE**

INT : 2457-2247  
Director : Dr. Bappa Mullick  
E-mail : diryw@admin.jdvu.ac.in  
diryw@jadavpuruniversity.in

### **OFFICE OF THE DIRECTOR OF YOUTH WELFARE**

Jadavpur University students did well in the co-curricular areas in the year 2016-17. There was a steady growth in students' participations at various levels, including students clubs / societies, intra-murals, extra-murals etc, wherein they demonstrated their zeal for participation in cultural, literary, artistic and adventure sports' activities. Students also exhibited their competence, coordination and enthusiasm in organizing of major events independently and while assisting the university. It was heartening to see the camaraderie and understanding amongst the members of various clubs in organizing of events, assisting in finding sponsors, and in sharing of rooms for their sessions. The Science Club, JUMHC, JUPC, QFDS, Music Club, Drama Club, Art & Literary Society, Painting Club and the Chess Club attracted huge memberships, and were the most active clubs with overwhelming participation from the new entrants. Outreach activities of office were also well attended by the students of various clubs and JU students in general.

### **Details of Major Participations, Achievements and Events**

- A 25 member JU cultural contingent participated at the **32<sup>nd</sup> AIU Inter-university Youth Festival** at Vidyasagar University and Shivaji University respectively for the Zonals and Nationals. Sagarika Das and Bijetri Pathak won first positions in the Fine Arts section at the zonal along with other five prize winners who qualified for the Nationals.
- Saket Chowdhury won the third prize in hindi Elocution participating at the Kamalnayan Bajaj memorial **All India Inter-University Elocution competition** at Wardha, Maharashtra.
- The highly successful **Jadavpur University Photo Fest** jointly presented by Victoria Memorial Hall, Goethe Institute and Jadavpur University and organized by JUPC was a first-of-its-kind initiative to understand photography in the context of contemporary visual art practices, actuating alternative discourse and inspiring fresh experiments through open-air exhibitions, curated projections, panel discussions, workshops and more. The theme of the event was HOME and was attended by Rahab Allana, Boris Eldagsen, SarkerProtick and Jordy Pizarro amongst others.
- **Jadavpur University Model United Nations 2017** organized by the JU Debating Society was a huge success attracting 600 plus students from across the country. The event was an international affair with delegates from Bangladesh and Sri Lanka as well. MUN-Connect India, an evaluating agency, included this JU-MUN in the Hall of Fame of MUNs accrediting an A grade.

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- In promoting multi-linguistics, JU Art and Literary Society for the first time organized a **Hindi Hasya Kavi Sammelan**, which was a huge draw. Taking a cue, Debating Society also organized its Annual **Fresher's Debate- Vox-Pop 2017** in trilingual, speakers in Bengali excelled equally.
- The **first edition of TEDxJU** was held in Jadavpur University under the supervision of Prof. Sudipto Dey in January 2017. Twelve eminent speakers from a spectrum of professions ranging from physics to photography delivered their talks.
- Among the speakers were William Dalrymple the Scottish historian and author, and Anita Anand, a British journalist, Chandrashekhar Ghosh the founder of Bandhan Bank and renowned musician Amyt Dutta to name just a few.

The TEDx initiative embodied the spirit of free thinking and creativity which the University has always tried to propagate.

- JU Art and Literary Society, led by Rajeet Bhattacharya, did extremely well in publishing the bi-annual editions of Campus News in the form of '**JU-Journal**'.
- The Jadavpur University Debating Society, led by Anirudha Talukdar, had an extremely successful year in 2016-17 with accolades coming from different parts of the country. Delegations from JU received **Best Delegation's awards at the annual MUN's** of Ravenshaw University, Cuttack, KIIT, Bhubaneswar, Shri Ramachandra University, Chennai and Bhawanipore Education Society College, Kolkata for exemplary performances by students as delegates of various committees.
- The JU Science Club, led by Sauryadeep Barua, continued their **Social-endeavor of tutoring underprivileged** pre-secondary students of N K Paul Adarsha Vidyalaya twice a week for the third year in continuation.
- Nirman Chakraborty stood 2nd in the Elocution competition at Borough level at the **State Youth Festival 2016-17** organised by the Department of Youth Welfare, Govt. of West Bengal, and also got 2<sup>nd</sup> position at the District level competition held at Netaji Indoor Stadium.

#### **32<sup>ND</sup> AIU INTER-UNIV. YOUTH FEST (ZONAL) AT VIDYASAGAR UNIVERSITY, MIDNAPUR, WEST BENGAL , 27<sup>th</sup> to 31<sup>st</sup> December, 2016**

##### **Merit list**

- Sagarika Das, Arch. Engg. – 1<sup>st</sup> in POSTER MAKING
- Bijetri Pathak, Int. Rel. – 1<sup>ST</sup> in COLLAGE
- Rohan Paul, ETCE – 3<sup>rd</sup> in SPOT-PHOTOGRAPHY
- Saswata Acharya, B. Pharm – Group 3<sup>RD</sup> in QUIZ
- Soumik Chakraborty, Chem. Engg. – Group 3<sup>RD</sup> in QUIZ
- Soumya Guchhait, Civil Engg – Group 3<sup>RD</sup> in QUIZ
- Souvick Chakraborty, Bengali – 3<sup>rd</sup> in CLASSICAL INSTRUMENTAL (Tabla)
- Agnidhra Gayen, Chem. Engg. - 4<sup>th</sup> in LIGHT VOCAL

#### **32<sup>nd</sup> NATIONAL AIU YOUTH FEST VENUE – SHIVAJI UNIVERSITY, KOLHAPUR, MAHARASHTRA, 10<sup>th</sup> to 14<sup>th</sup> February, 2017**

##### **Merit list**

- Souvick Chakraborty, Bengali – 4<sup>th</sup> in CLASSICAL INSTRUMENTAL (Tabla)



## **Annual Report 2016-17**

### **JU STUDENTS CLUB/SOCIETIES ACTIVITIES**

#### **JU Photographic Club (JUPC)**

- Jadavpur University Photographic Club (JUPC) provided students with photographs of their degree receiving moments on Annual Convocation Day, like in the previous years.
- JUPC organized Basic Training Course on Photography for the Freshers in the month of August, 2017 on the following dates:

1st class of Basic Training Session 2016 organized by J.U.P.C. witnessed a whopping 150+ photography enthusiasts from different departments of Jadavpur University. The First Theory Class was on 17.08.16, 5.30 p.m. 2nd floor, AC Canteen Building. The 1st practical class was on 21.08.2016 at Victoria Memorial. Basic Training Session 2nd Practical class was on 28.08.2016 at RabindraSarobar.

- **Some Achievements of JUPC Members During 2016-17**

- 1) Indranil Banerjee got the Bronze Medal in Spot news, general news (series of photos) section of Life Press Photo 2016.
  - 2) Siddhartha Banerjee got accepted in Spot news, general news (single photo) section.
  - 3) SouravSil's photo-essay OBLIVION: LIFE AFTER DEATH got published in Private Magazine, France.
  - 4) SurajBhakat's photo-essay WEAVER ANTS- A CLOSER LOOK got published in Private Magazine, France.
- JUPC organised their member's **Photo Exhibition 'INTRA-2017'**, at Central Library and World View of the main campus during 8-11 November 2016

**1st Jadavpur University Photo Fest** jointly presented by Victoria Memorial Hall, Goethe Institut / Max Mueller Bhavan Kolkata and Jadavpur University and organised by **Jadavpur University Photographic Club (JUPC)**, is a first-of-its-kind initiative in the city to understand photography in the context of contemporary visual art practices, actuate alternative discourse and inspire fresh experiments through open-air exhibitions, curated projections, panel discussions, workshops and much more.

The first edition of the festival will be held from 24th February to 5th March, 2017 hinging on the theme 'HOME'.

**24TH FEBRUARY:**Inauguration by Goutam Ghose | Son-et-lumiere, Victoria Memorial Hall, Keynote Address by Rahaab Allana | Son-et-lumiere, Victoria Memorial Hall, Panel Discussion: Art as Archive | Son-et-lumiere, Victoria Memorial Hall. Speakers: Sanjoy Mukhopadhyay, Anindya Sengupta, Ronny Sen, Ranu Roy Choudhuri, Moderator: Maharghya Chakraborty

**25TH FEBRUARY:** Inauguration | Gandhi Bhavan, Jadavpur University; Artist talk: Boris Eldagsen | Gandhi Bhavan, Jadavpur University

**26TH FEBRUARY:** Gallery Walk: Boris Eldagsen | Open Air Theatre, Jadavpur University ;Conversation: RahaabAllana with Soumyadip Ghosh | KP Basu Memorial Hall, Jadavpur University

**27TH FEBRUARY:** Film Screening: Sans Soleil | Gandhi Bhavan, Jadavpur University

**28TH FEBRUARY:** Film Screening: La Jetée | Gandhi Bhavan, Jadavpur University, Artist talk: Shan Bhattacharya | Gandhi Bhavan, Jadavpur University

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**1ST MARCH:** Film Screening: Night and Fog | Gandhi Bhavan, Jadavpur University, Artist talk: SarkerProtick | Gandhi Bhavan, Jadavpur University

**2ND MARCH:** Film Screening: 5 Broken Cameras | Gandhi Bhavan, Jadavpur University; Special Session: A talk by Moinak Biswas on Memory/ Representation/ Image, Gandhi Bhavan, Jadavpur University

**3RD MARCH:** Gallery Walk: Jordi Pizarro | Victoria Memorial Hall; Gallery Walk: Subrata Biswas | Victoria Memorial Hall; Film Screening: The Strange Case of Angelica | Gandhi Bhavan, Jadavpur University, Evening Projections | Open Air Theatre, Jadavpur University

**4TH MARCH:** Prize Distribution Ceremony of Montage'17 | Gandhi Bhavan, Jadavpur University, Artist talk: Jordi Pizarro | Gandhi Bhavan, Jadavpur University

**5TH MARCH:** Closing Ceremony | Open Air Theatre, Jadavpur University

### **JU Painting Club**

- Xavotsav-2017, organised by St. Xaviers' College and there in Rongoli event out of 12 participants, Joyti Sarkar and RiddhiMahaldar got 1<sup>st</sup> position. . Lobelia-2017, organised by R G Kar Medical College and Hospital and there, in Junk Art event, Sagarika Das and RiddhiMahaldar got 2<sup>nd</sup> positions.

### **JU Mountaineering & Hiking Club (JUMHC)**

- In June 2016, we organized **Mt. Kedar Dome Expedition (6830 meters)**. Eight student members were a part of this expedition along with a senior pass-out member and climbed Kedar Dome successfully and made it to the summit.
- In June 2016, five students of Jadavpur University completed the **Basic Mountaineering Course** from ABVIMAS Manali. Two students completed the **Advanced Mountaineering Course** from ABVIMAS Manali itself.
- JUMHC conducted **Six Rock Climbing practices at Susunia and Mathaburu Hills** at the time of September 2016 to January 2017.
- In January 2017, JUMHC conducted the annual **Rock Climbing Course** at Susunia Hills, of four days; where there were 51 Basic Trainees as well as 7 Intermediate Trainees.
- JUMHC held regular rock climbing training sessions on the Artificial Wall, situated at the JU Salt Lake campus. There were 10-plus training sessions during the year.
- An artificial wall climbing competition for fresher's was also conducted in the event of **U-Turn** in August 2017.
- In February 2017, six members from JUMHC had taken part in the **State Climbing Competition** organized by IMF-East Zone, at WBMASF, Salt Lake.
- In March 2017, seven members took part in the **All India Open Category Climbing Competition**, organized by IMF, at Kamarhati.

### **JU Science Club**

- **Jontro Tontro '17** took place in the 2<sup>nd</sup> week of February, organised by JUSC. The Club had a workshop prior to the fest on 21<sup>st</sup> and 22<sup>nd</sup> of January on **'IMAGE**

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**PROCESSION USING MATLAB**’ where the overall turn up was around 70-80 with 5-6 pupil from other colleges like IEST Shibpur, HIT and Techno India. In the main fest the Club had 3 events and a panel discussion (**TechTalk v1.0**) co-organised by JU Journal. The Robotics Event consisted of ‘Death Race’, a racing event for manual bots where the turn-up was around 15 teams with half of them from outside college. A Science and Tech Quiz was also organised.

- There was another event called ‘**INNOVISION**’ which was organised only for the first years of JU. All the events were fruitful and had overwhelming responses.

### **JU Quiz Forum**

- The club held regular sessions of Quizzing throughout the year.
- The JU Quiz team qualified for the AIU National Youth Festival 2016-17
- **Best Under-25 team** – M: The Movie Quiz 2017
- **First positions at** Chembridge Quiz 2017, Inquizzitive (Bethune College Fest Quiz – 2016, Literature Quiz at Loreto Literary Fest – 2016, NUJS Open – 2017, Pub Quiz 2017 (Lalit Great Eastern Hotel), Question Mark 2017 (RCC Institute of Technology), Neo Quizzical, Arthatantra (Presidency University Economics Summit 2017) and Srijan Quizzit General Quiz 2017
- **Second positions at** Chemathlon Quiz 2017, Cine Quiz 2017 (Calcutta Medical College), General Quiz 2017 (Pailan Institute of Technology), International History and Politics Quiz (Heritage Quiz Festival 2017, and NerdMeet 2017 (Pre-gig Quiz)
- **Third positions at** Ecowhizz 2017 (Young Economist Students’ meet), IBSO Facto 2017 (ICFAI Business School Quiz), Loteto Shield Quiz 2016, Sports Quiz 2016 (Xavotsav, St. Xavier’s College), Business Quiz 2017 (Heritage Institute of Technology), Neo Quizzical, Arthatantra (Presidency University Economics Summit 2017) and Srijan Quizzit General Quiz 2017

### **Jadavpur University Chess Club**

- JU Chess Club conducted regular sessions of chess almost on a daily basis throughout the year. The total membership of the club increased manifold.
- There was a training session for chess enthusiasts hosted by the JU Chess Club in January 2017 which was attended by 30 students.
- JU Chess Club organised intra-university chess tournament during the month of January, 2017, with a participation of 40 students. The tournament was held up at OPT Seminar Hall, AC Canteen Building.

### **Jadavpur University Art and Literary Society (ALS)**

- In promoting multi-linguistics, JU Art and Literary Society for the first time organized a **Hindi Hasya Kavi Sammelan**, which was a huge draw. Subham Raj Singh won the 1<sup>st</sup> position while Parminder Sing, and Roushan Kumar bagged the 2<sup>nd</sup> and 3<sup>rd</sup> position respectively.
- The club member’s organised regular sessions towards publication of their by-annual magazine “**JU Journal**”

## **Annual Report 2016-17**

- JUALS organised regular club sessions throughout the year and its members did well while representing JU at the AIU Youth Fests.

### **JU Debating Society**

- JU Debating Society organised The VOXPOP Freshers 2016 (Trilingual Freshers' debate). The finals were held on 19.08.2016 at Mechanical Engineering department seminar room. The winners were Aritra Dutta Banik and Deepyaman De (Best Speakers), Ujaan Ganguly and Maninee Maity (Runners Up), Aritra Dutta Banik and Sanglap Das also took home the Ghosh-Sinha Rolling Trophy for Best Team. The motion before the House stood: This House Believes That This World Is Ready For A Bulletproof Black Man. This is the first time that VoxPop was held as a trilingual debate.
- Year-round sessions on debating and public speaking were held by the JU Debating Society.

### **JU Music Club**

- Musical concerts Annual Convocation and Prof. G.C. Sen Memorial Ceremony  
Student-participants of JU, led by **JU Music Club**, took part at the **Annual Convocation** and **Prof. G.C. Sen Memorial Ceremony** on 24<sup>th</sup> December 2016 and 30<sup>th</sup> December 2016, respectively. The participants were Smt. Ivy Adak, staff of Bengali Dept., Monalisa Bhakta, Ruma Barman, Education Dept., Pramantha Tagore, English Dept., Sneha Datta, Philosophy Dept., Debajyoti Das, Ananya Saha, and Agnidhra Gayen of Chemical Engg.

### **Other Activities/Responsibilities towards promotion and welfare of students Best All-Round Graduates and Post-Graduate awards 2016**

The processing and selection for the recipients of the Annual Best All-Round Graduates and Post-Graduate awards 2016 was carried out by the office. Following are the award winners:

#### **Best All-Round Graduate Award for the year 2016**

1. Pratiba Moyee Gold Centered Silver Medal for the Best All-Round Female Graduate (including all the Faculties): **Shreya Sanyal**
2. Alumni Association Gold Centered Silver Medal for the Best All-Round Graduate combining all the three faculties: **Shreya Sanyal**
3. Purna Chandra Laha Silver Medal for the Best All-Round Graduate including all the faculties: **Shreya Sanyal**
4. Prafulla Kanti Banerjee Silver Medal to be given to the Best All-Round Graduate from the remaining two faculties: **Swapnil Dey**
5. Monibala Roy Gold Centered Silver Medal to be awarded to the Best All-Round Girl Graduate of the Engg. & Tech. Faculty only: **No Applicant**
6. Dipak Kumar Choudhury Memorial Gold Centered Silver Medal for the Best All-round Graduate combining all the three Faculties: **Shreya Sanyal**

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### **Best All-Round Post-graduate Award for the Year 2016**

1. B. D. Mukherjee Memorial Gold Centered Silver Medal for Best All-Round Post Graduate Award : **Debjyoti Das**

- **“Personal Accident-cum-Medical Insurance for students of Jadavpur University”**

Below is the list of students who got the claimed amount for the session 2016-17

Shivani Agarwal, Rs. 10,994/-

Dibakar Nath Rs. 2,141/-

Sudeshna Sarkar Rs. 5,440/-

### **Out-reach activities conducted by the Office:**

- **Round the year tutoring of the underprivileged girl students of middle standard –**

Initiated by student volunteers of JU Science Club, under the supervision of the office of DYW, Sauryadeep Barua, a student of Computer Science led the ongoing programme commendably for the session 2016-17. This being the third year on the trot that the students have offered their helping hands to the underprivileged students in tutoring them for their respective exams in subjects English, Science and Maths. This bi-weekly endeavour was carried out at the various club rooms in the evening hours.

- On the occasion of Bhasha Diwas, 21<sup>st</sup> February, the JU Music Club students went to interior rural village at Mathurapur’s Krishnachandrapur High School and gave live performances there. The students also taught the school kids various aspects of music, dance and theatre.

### **Minor Project**

- Dr. B. Mullick, DYW, was sanctioned a minor project under XIIth Plan General Development Assistance. Title of the Project: *“A comprehensive analysis of Health & Fitness of school going children of Kolkata and its adjoining districts”*.