ADULT, CONTINUING EDUCATION & EXTENSION

Phone : + 91-33-2414-6236
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E-mail : hod@acee.jdvu.ac.in

1 A. **Courses Offered:** Details of the Courses offered during the period from 1 April 2012 to 31 March 2013 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.

2 B. **Major Research Project:**

3 A. **Invited Lectures Delivered / Session Chaired:**
   Name of the Teacher : Sri Santwan Chattopadhyay
   Type of Participants : Lecture delivered
   Name of the Seminar/Conference :Special Summer School organised by Academic Staff College, C.U.
   Place : University of Calcutta
   Duration : One day (11.7.2012)

   Name of the Teacher : Sri Santwan Chattopadhyay
   Type of Participants : Lecture delivered
   Name of the Seminar/Conference : Swami Vivekananda's 150th Birth Anniversary
   Place : Jadavpur University
   Duration : One day (11.9.2012)

   Name of the Teacher : Sri Santwan Chattopadhyay & Dr. Somenath Bhattacharya
   Type of Participants : Paper Presentation
   Name of the Seminar/Conference : International Seminar on 'Communication – Key to Extension'
   Place : Jadavpur University
   Duration : One day (11.12.2012)

   Name of the Teacher : Sri Santwan Chattopadhyay & Dr. Partha Sarathi Chakraborty
   Type of Participants : Paper Presentation
   Name of the Seminar/Conference : International Seminar on 'Communication – Key to Extension'
   Place : Jadavpur University
   Duration : One day (11.12.2012)

   Name of the Teacher : Dr. Partha Sarathi Chakraborty
   Type of Participants : Lecture delivered
   Name of the Seminar/Conference : 'Transportation Optimisation Module and Problem Solving techniques'
   Place : Indian Oil Bhawan, Kolkata
Duration : One day (17.9.2013)

3 C. Seminar/Workshop/Conference/Symposium Organised:
   (2) Organised International Workshop entitled 'The Present Scenario of Brand Integration in Indian Films' on 6.11.2013 at Jadavpur University.

4 B. Articles Published in Journals:
   Name of the Teacher: X. Charles, P.S.Chakraborty
   Name of the Article: The Enterprises Web-Portal PECS Product Data Management and Applications
   Name of the Journal: International Journal of Scientific and Engineering Research
   Volume / Year: 4(7)/ 2013

   Name of the Teacher: X. Charles, P.S.Chakraborty
   Name of the Article: Web Portal Global Product Master Data Management System
   Name of the Journal: VSRD International Journal of Mechanical, Civil, Automobile and Production Engineering
   Volume / Year: III(VI)/ 2013

   Name of the Teacher: X. Charles, P.S.Chakraborty
   Name of the Article: Product Life Cycle Management in Automotive Enterprises
   Name of the Journal: International Journal of Engineering and Computer Science
   Volume / Year: 2(5)/ 2013

   Name of the Teacher: X. Charles, P.S.Chakraborty
   Name of the Article: Web Portal Product Data Management in Automotive Enterprises
   Name of the Journal: International Journal of Science and Research
   Volume / Year: 2(5)/ 2013

   Name of the Teacher: X. Charles, P.S.Chakraborty
   Name of the Article: Portal Productive Automotive Data Management in Engineering Process
   Name of the Journal: International Journal of Management,
   Volume / Year: 4(4)/2013

   Name of the Article: Selection of internet assessment vendors using TOPSIS method in Fuzzy environment
   Name of the Journal: International Journal of Business Performance and Supply Chain Modelling
   Volume / Year: 5(1)/2013

5. Collaborative Programmes:
   Courses organised in collaboration with different organisations have been shown in Annexure ‘A’.
6. **Major Achievements:**

   Sri Santwan Chattopadhyay acted as Guest Editor (Jointly with Dr. Saswati Gangopadhyay), Global Media Journal (Indian Edition), ISSN 2249 – 5835, Summer issue, June, 2012.

*Annexure : ‘A’*

**COURSES OFFERED FOR THE SESSION 2012 – 2013 :**

**GRADUATE LEVEL COURSES :**

<table>
<thead>
<tr>
<th>Title of the Course: B.Ed. in Special Education (Locomotor Impairment and Neuro-Muscular Disorder) <em>(With Indian Institute of Cerebral Palsy)</em></th>
<th>Duration: 1 Year</th>
<th>Course Fee: Rs.20,000/- +Rs.460/-</th>
<th>Eligibility: Graduate in any discipline</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Title of the Course: B.Ed. in Special Education <em>(Mental Retardation)</em> <em>(With Manovikash Kendra)</em></th>
<th>Duration: 1 Year</th>
<th>Course Fee: Rs.20,000/- +Rs.460/-</th>
<th>Eligibility: Graduate in any discipline</th>
</tr>
</thead>
</table>

**POST - GRADUATE DIPLOMA LEVEL COURSES :**

<table>
<thead>
<tr>
<th>Title of the Course: Post Graduate Diploma in Mass Communication</th>
<th>Duration: 1 Year</th>
<th>Course Fee: Rs.20,000/-</th>
<th>Eligibility: Graduate in any discipline</th>
</tr>
</thead>
</table>

**DIPLOMA LEVEL COURSES:**

<table>
<thead>
<tr>
<th>Title of the Course: Diploma in Food Processing and Customized Management</th>
<th>Duration: 1 Year</th>
<th>Course Fee: Rs.10,000/-</th>
<th>Eligibility: Madhyamik or equivalent</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Title of the Course: Diploma in Food Processing, Nutrition and Health Care</th>
<th>Duration: 1 Year</th>
<th>Course Fee: Rs.10,000/-</th>
<th>Eligibility: Madhyamik or equivalent</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Title of the Course: Diploma in Food Processing, Nutrition and Health Care</th>
<th>Duration: 1 Year</th>
<th>Course Fee: Rs.10,000/-</th>
<th>Eligibility: Madhyamik or equivalent</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Title of the Course: Diploma in Electrical Technician <em>(With Aurobindo Engineering Institute)</em></th>
<th>Duration: 1 Year</th>
<th>Course Fee: Rs.32,000/-</th>
<th>Eligibility: Madhyamik or equivalent</th>
</tr>
</thead>
</table>
Title of the Course: Diploma in Automobile Engineering (With Aurobindo Engineering Institute)
Duration : 1 Year
Course Fee : Rs.Rs.32,000/-
Eligibility : Madhyamik or equivalent

CERTIFICATE LEVEL COURSES:

Title of the Course: Technician Training Course in Air-Conditioning and Refrigeration (In collaboration with St. Thomas Technical Training Centre)
Duration : 1 Year
Course Fee : Rs.500/- per month
Eligibility : Passed Class VIII standard

Title of the Course: Computer Hardware (In collaboration with St. Thomas Technical Training Centre)
Duration : 6 Months
Course Fee : Rs.4500/-
Eligibility : Class X appeared.

Title of the Course: Basic Management of Cerebral Palsy for Medical Professionals (In collaboration with IICP)
Duration : 4 Weeks
Course Fee : Rs. 2000/-
Eligibility : Qualified Medical Professionals (Medical practitioners, therapists and rehabilitation professionals.)

Title of the Course: Community Management (With Indian Association)
Duration : 12 Weeks
Course Fee : Rs. 1200/-
Eligibility : Higher Secondary or equivalent

Title of the Course: Offset Printing & Binding
Duration : 20 Weeks
Course Fee : Rs.2000/-
Eligibility : Higher Secondary or equivalent

Title of the Course: Offset Printing & Binding
Duration : 20 Weeks
Course Fee : Rs.2000/-
Eligibility : Higher Secondary or equivalent

Title of the Course: Acupuncture
Duration : 16 Weeks
Course Fee : Rs.3600/-
Eligibility : Regd. Medical Practitioners (MBBS/BHMS/DMS/BAMS/BDS or equivalent)

Title of the Course: Educational Administration (With Nopany Charitable Trust)
Duration : 12 Weeks(Saturday & Sunday)
Course Fee : Rs.5000/-
Eligibility : Graduate (Desirable : work experience in Educational Institution)

Title of the Course: Basic Networking(With St. Thomas Technical Training Centre)
Duration : 16 Weeks
Course Fee : Rs.3500/-
Eligibility : Class X appeared and knowledge of Computer Hardware.

Title of the Course: Women and Legal Literacy
Duration : 2 Weeks
Course Fee : Rs.200/-
Eligibility : H.S. or equivalent engaged in administration, panchayat members and officials, school teachers, housewives, small entrepreneurs, etc.

Title of the Course: Vocational courses on 'Industrial Practices'(With TMC Institute of Learning)
Duration : 6 Months
Course Fee : Rs.6000/-
Eligibility : Madhyamik or equivalent / Class VIII passed with 5 years experience in related industry.

Title of the Course: Caregivers for persons with disabilities(With IICP)
Duration : 8 Weeks
Course Fee : Rs.1000/-
Eligibility : Class VIII passed

Title of the Course: Manuscriptology & Paleography
Duration : 24 Weeks
Course Fee : Rs.5500/-
Eligibility : Graduate with working knowledge of Sanskrit

COURSES FOR THE PERSONS WITH SPECIAL NEEDS :

Title of the Course: Computer Operation Course for recovering mentally ill and chemical dependency patients (In collaboration with Antara Psychiatric Centre)
Duration : 12 Weeks
Course Fee : Rs.1200/-
Eligibility : Madhyamik or equivalent

Title of the Course: Computer Operation Course for the Deaf and Physically Challenged Persons (In collaboration with Silence Training Institute)
Duration : 1 Year
Course Fee : Rs.576/-
Eligibility : Persons having normal functioning of brain, if of course hands and eyes are not affected, ability to read English alphabets & Numericals.

Title of the Course: Art & Craft Course for the Deaf and Physically Challenged Persons (With Silence Training Institute)
Duration : 1 Year
Course Fee : Rs.576/-
Eligibility : 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.

Title of the Course: Desk Top Publishing (With IICP)
Duration : 24 Weeks
Course Fee : Rs.2600/-
Eligibility : Madhyamik or equivalent. Persons with physical and multiple disabilities, hearing impairment and persons without disabilities from economically weaker sections who have working knowledge in English.

Title of the Course: Web Designing & Publishing (With IICP)
Duration : 24 Weeks
Course Fee : Rs.3500/-
Eligibility : Madhyamik or equivalent. Persons with physical and multiple disabilities, hearing impairment and persons without disabilities from economically weaker sections who have working knowledge in English.

Title of the Course: Office Management (With IICP)
Duration : 16 Weeks
Course Fee : Rs.2100/-
Eligibility : Madhyamik or equivalent. Persons with physical and multiple disabilities, hearing impairment and persons without disabilities from economically weaker sections who have working knowledge in English.

Title of the Course: Database Management (With IICP)
Duration : 8 Weeks
Course Fee : Rs.1200/-
Eligibility : Madhyamik or equivalent. Persons with physical and multiple disabilities, hearing impairment and persons without disabilities from economically weaker sections who have working knowledge in English.

EXTENSION & FIELD OUTREACH PROGRAMMES :

Title of the Course : Computer Literacy Programme (With Bhola Basu Smriti Bhavan)
Duration : 6 Weeks
Course Fee : Nil
Target Group : Unemployed Youth

Title of the Course : Sewing and Tailoring (Kalikapur I No. Gram Panchyat)
Duration : 6 Months
Course Fee : Nil
Target Group : Rural underprivileged women

Title of the Course : Sewing and Tailoring (Kalikapur II No. Gram Panchyat)
Duration : 6 Months
Course Fee : Nil
Target Group: Rural underprivileged women

Title of the Course: Sewing and Tailoring (Pratapnagar Gram Panchyat)
Duration: 6 Months
Course Fee: Nil
Target Group: Rural underprivileged women

Title of the Course: Sewing – Basic (Emmanuel Ministries)
Duration: 6 Months
Course Fee: Nil
Target Group: Street Children

Title of the Course: Sewing – Advanced (Emmanuel Ministries)
Duration: 6 Months
Course Fee: Nil
Target Group: Street Children

Title of the Course: Sewing (Kolkata Socio Cultural Research Institute)
Duration: 6 Months
Course Fee: Nil
Target Group: Urban underprivileged women (Minority)

Title of the Course: Sewing and Tailoring (Ward No. 16, KMC) (BSPS)
Duration: 6 Months
Course Fee: Nil
Target Group: Urban underprivileged women

ARCHITECTURE

Phone: +91-33-2414-6667
Int.: 2457-2209/2824
H.O.D.: Dr. Jayita Guha Niyogi
E-mail: hod@arch.jdvu.ac.in

1. A. Courses Offered:
   Name of the Course: Bachelor of Architecture
   Duration of Course: 5 Years
   No. of Students Enrolled: 38

   Name of the Course: Master of Architecture
   Duration of Course: 2 Years
   No. of Students Enrolled: 08

B. Number of Faculty Members: 8

2. A. Area of Research Activities:
   Prof. Shubhrajit Das: Architecture Theory and Pedagogy
Prof. Tapas Bhattacharya : Building construction, Building services, Human Settlement
Dr. Jayita Guha Niyogi : Town and Regional Planning, Transportation Planning, Integrated Land
Use and Traffic System
Dr. Shivashish Bose : Theory of Architecture & Urban Design; Architectural Design for Thermal Comfort & Energy Efficiency; Architectural and Urban Conservation; Environmental Planning; Sustainable Development
Dr. Madhumita Roy : Urban Design, Energy Efficient Architecture
Dr. Suchandra Bardhan : Buildings and climate change & sustainability; Historic, regional & urban landscapes
Dr. Sanjib Nag : Architecture, Urban Housing, Urban Design & Related Urban Transformations.
Sri Debashish Das : Urban Building Microclimate, Eco-City planning

B. Major Research Project :
Departmental/Individual : Dr. Jayita Guha Niyogi
Name of the Project : Principal Investigator for Research project under PURSE, Jadavpur University titled “Study to develop a land use cum stochastic transportation model for a better Kolkata”
Funding Agency : DST

Departmental/Individual : Dr. Shivashish Bose (Individual)
Name of the Project : Search for Appropriate Design and Construction of Top Floor of Modern Residential Buildings in Kolkata for Comfort and Sustainability
Funding Agency : UGC

Departmental/Individual : Dr. Madhumita Roy
Name of the Project : ON-LINE system for sanctioning building plans for West Bengal Housing Infrastructure Development Corporation (WBHIDCO)
Funding Agency : WBHIDCO

Departmental/Individual : Dr. Madhumita Roy
Name of the Project : ON-LINE system for sanctioning building plans for Howrah Zilla Parishad (HZP), West Bengal
Funding Agency : HZP, West Bengal

Departmental/Individual : Dr. Madhumita Roy
Name of the Project : ON-LINE system for sanctioning building plans for Kolkata Municipal Corporation (KMC)
Funding Agency : KMC

Departmental/Individual : Dr. Madhumita Roy
Name of the Project : Formulation of building rules & regulations for Kolkata Municipal Corporation (KMC)
Funding Agency : KMC

Departmental/Individual : Dr. Madhumita Roy
Name of the Project: R & D Project on The Feasibility Of Bamboo Structure For Possible Inclusion Into NBC & CPWD Schedule for NMBA, DST.
Funding Agency: NMBA, DST

Departmental/Individual: Dr. Suchandra Bardhan
Name of the Project: Assessment of embodied water content of contemporary urban buildings
Funding Agency: UGC Major Research Project

Departmental/Individual: Sri Debashish Das
Name of the Project: PhD on “Aspects of Urban Built Form- Investigations for Interventions in Urban Environment of Kolkata”
Funding Agency: None

Departmental/Individual: Sri Debashish Das
Name of the Project: Principal Investigator for Research project under PURSE, Jadavpur University titled "Developing framework for an integrated approach to Ecocity planning for Megacities- Case Study of Kolkata"
Funding Agency: DST

3. A. Invited Lectures Delivered (Session Chaired)

Name of the Teacher: Prof. Shubhrajit Das
Type of Participants: Post Graduate Students of Architecture
Name of the Seminar/Conference: CEPT Graduate Program in Architecture Theory. August 2012
Place: Ahmedabad
Duration: 1 Day

Name of the Teacher: Prof. Shubhrajit Das
Type of Participants: Post Graduate Students of Architecture
Name of the Seminar/Conference: CEPT Graduate Program in Architecture Theory. January 2013
Place: Ahmedabad
Duration: 1 Day

Name of the Teacher: Prof. Tapas Kumar Bhattacharyya
Type of Participants: Lecture delivered
Name of the Seminar/Conference: Visited the Research Laboratory and lectured on acoustic testing and Product Development in Armstrong World Industries
Place: USA
Duration: June, 2013

Name of the Teacher: Dr. Suchandra Bardhan
Type of Participants: Architects, students & members of Green Building industry
Name of the Seminar/Conference: IGBC student chapter launch
Place: Dept of Architecture, JU
Duration: 11th October 2012
B. Seminar/Workshop/Conference/Symposium Attended:

Name of the Teacher: Dr. Shivashish Bose
Name of the Paper Presented: Participated
Name of the Seminar/Conference: International Symposium titled “Cities Under Change”, organized by the Centre for Built Environment, Kolkata.
Place: Rabindranath Tagore Centre, Indian Council for Cultural Relations (ICCR)
Duration: 17th-19th October, 2012

Name of the Teacher: Dr. Shivashish Bose
Name of the Paper Presented: Climate Responsive Architecture: House of Samar Banerjee in Kolkata
Name of the Seminar/Conference: International Conference on ‘Advances in Architecture and Civil Engineering’ AARCV 2012 organized by Department of Civil Engineering & School of Architecture of M S Ramaiah Institute of Technology (MSRIT), Bangalore.
Place: M S Ramaiah Institute of Technology (MSRIT), Bangalore
Duration: 21st-23rd June, 2012

Name of the Teacher: Dr. Suchandra Bardhan
Name of the Paper Presented: Energy sustainability Studies on under-construction buildings: Baseline for tomorrow’s policy
Name of the Seminar/Conference: International Conference on Sustainable Built Environment, 2012
Place: Kandy, Sri Lanka
Duration: 14-16 Dec. 2012

Name of the Teacher: Sri Debashish Das
Name of the Paper Presented: Participated
Name of the Seminar/Conference: 2 Days UGC-sponsored National Workshop on "Climatology of Humid Tropics: Contemporary Issues and Techniques"
Place: Department of Geography, University of Kolkata
Duration: June 1-2, 2012

Name of the Teacher: Sri Debashish Das
Name of the Paper Presented: Convener and Participated
Name of the Seminar/Conference: Workshop on "Urban Green Spaces"
Place: At Mahanayak Mancha, Unnayan Bhavan, Salt Lake, Kolkata
Duration: September 25-26th, 2012

C. Seminar/Workshop/Conference/Symposium Organized:

Name of the Teacher: Debashish Das
Name of the Paper Presented: Convener
Name of the Seminar/Conference: Workshop on "Urban Green Spaces"
Place: At Mahanayak Mancha, Unnayan Bhavan, Salt Lake, Kolkata
Duration: September 25-26th, 2012

Name of the Teacher: Dr. Sanjib Nag
Name of the Paper Presented: Member, Organizing Committee
Name of the Seminar/Conference: Annual Convention 2012, The IIA.
Place: The Princeton Club, Kolkata.
Duration: June 24 & 25, 2012.

Name of the Teacher: Dr. Sanjib Nag
Name of the Paper Presented: Coordinator
Name of the Seminar/Conference: IGBC Student Chapter Launch
Place: Jadavpur University
Duration: October 2012.

Name of the Teacher: Dr. Sanjib Nag
Name of the Paper Presented: Coordinator
Name of the Seminar/Conference: Departmental Magazine Launch
Place: Jadavpur University
Duration: May 2013.

D. Orientation Courses/Refresher Courses Attended:

Name of the Teacher: Sri Debashish Das
Title of the Course: 12 days Short Term Course I Remote Sensing and GIS at,
Place: Geoinformatics and Remote Sensing Cell, Bikash Bhavan, Kolkata

4. A. Books/Monographs etc. Published:

Name of the Teacher: Prof. Tapas Kumar Bhattacharyya
Name of the Book: Article titled "Heritage and Architecture in India" published in the Book titled
"Aspects of Indian History and Culture" (ISBN-13:978-81-7479-134-4)
Name of the Publisher: Kavery Books, New Delhi

Name of the Teacher: Dr. Suchandra Bardhan
Name of the Book: Editorial Advisor for departmental magazine ‘Blueprint’, Vol. 2 published in
May 2013
Name of the Publisher: SSAJU, Dept. of Architecture, JU

Name of the Teacher: Dr. Sanjib Nag
Name of the Book: Editorial Member of the souvenir, 'Hospitality Architecture & Design' published in June 2013.
Name of the Publisher: The Indian Institute Of Architects.

B. Articles Published in Journals:

Name of the Teacher: Dr. Jayita Guha Niyogi (with Co-author)
Name of the Articles: A Quick Assessment Technique to Determine Profitability in Private City-Bus-Services – Case Study Kolkata-Howrah Urban Area, India
Name of the Journal: RACST- International Journal of Research in Management & Technology (IJRMT), ISSN: 2249-9563
Date of Publication: August 2012
Name of the Teacher : Dr. Shivashish Bose
Name of the Articles : Climate and Urban Design Responsive Modern Architecture in Existing Setting
Name of the Journal : International Peer-reviewed Research Journal titled 'Industrial Engineering & Management Science' (ISSN: 2250-1096)
Date of Publication : December, 2012

Name of the Teacher : Dr. Shivashish Bose
Name of the Articles : Historic Buildings at Chitpur in Kolkata: Problems and Prospects through Urban Conservation and Planning
Name of the Journal : International Indexed Peer-reviewed Planning Journal titled 'disP – The Planning Review' (ISSN: 0251-3625) published by Swiss Federal Institute of Technology-Zurich (ETH-Zurich), Switzerland through Routledge of Taylor & Francis, UK.
Date of Publication : September, 2012
Volume : Volume 48, Issue No. 188.1/2012, pp.68-82.

Name of the Teacher : Dr. Shivashish Bose
Name of the Articles : Restoration of Town Hall in Kolkata for Adaptive Reuse: A Case Study
Name of the Journal : International Peer-reviewed Structural Engineering Journal titled ‘Structural Survey’ (ISSN: 0263-080X) of Emerald Group Publishing Ltd, UK,
Date of Publication : June, 2012

Name of the Teacher : Dr. Shivashish Bose
Name of the Articles : Baboo Ghat: Study of a Historic Riverfront Element in Kolkata
Name of the Journal : Journal titled ‘ABACUS’ (ISSN: 0973-8339), published by Department of Architecture of Birla Institute of Technology in Mesra, Ranchi, India
Date of Publication : Spring 2012

Name of the Teacher : Dr. Sanjib Nag (Co-author)
Name of the Articles : Visual Perception Of Urban Place :Case Study Of Kolkata
Name of the Journal : The Journal Of Indian Institute Of Architects
Date of Publication : Publication In Process
Volume :

Name of the Teacher : Sri Debashish Das
Name of the Articles : Urban Built Forms – Analysing the daylight potential of an architectural form
Name of the Journal : Architecture – Time, Space & People’- a Journal of the Council of Architecture, India
Date of Publication : June 2012
Name of the Teacher: Sri Debashish Das
Name of the Articles: A city and its climate, Urban Built Forms-Development of Parametric models for analysis of its microclimatic aspects in Kolkata
Name of the Journal: Architecture – Time, Space & People’- a Journal of the Council of Architecture, India
Date of Publication: July 2012
Volume: Vol. 12, Issue 7, pp. 16-23

Name of the Teacher: Sri Debashish Das
Name of the Articles: Sky View Factor of Urban Canyon Geometry and its role in UHI Effect - Case study of Kolkata,
Name of the Journal: Indian Journal of Landscape Systems and Ecological Studies, Institute of Landscape, Ecology and Ekistics, Kolkata,
Date of Publication: July 2012
Volume: Vol. 35, No. 1, ISSN 0971-4170, 2012

5. Collaborative Programmes:
Dr. Shivashish Bose organized a one-day International Workshop on ‘Urban and Regional Planning for Regeneration and Sustainable Development’ on behalf of Jadavpur University at the Department of Architecture of Jadavpur University, Kolkata in collaboration with the Department of Urban and Regional Planning of the University of Florence, Italy.
Dr. Suchandra Bardhan facilitated the introductory presentation of the annual National level students’ competition by Indian Institute for Human Settlements (IIHS), Bangalore-Delhi for the students of the department.
Dr. Sanjib Nag coordinated the award of scholarships, under Students Assistance Programme 2012-13 of the Alumni Association, JU and the IIA, WB Chapter, for the students of the department.

6. Major Achievements:
- Prof. Tapas Kumar Bhattacharyya acted as an expert in the Building Committee of the Bose Institute, Kolkata
- Prof. Tapas Kumar Bhattacharyya participated as a member in the process of selection of Design entries for the Students’ Design competition conducted by INSDAG (a Govt. of India undertaking on research on Steel)
- Prof. Tapas Kumar Bhattacharyya prepared the architectural acoustic design for the Auditorium at the RG Kar College, Kolkata
- Prof. Tapas Kumar Bhattacharyya rendered consultancy service for extension of ATC (Air Traffic Control) Building at the NSCBI Airport, Kolkata
- Prof. Dr. Jayita Guha Niyogi was invited as the Subject Expert Member of Syllabus Review Committee of Diploma Engg. & Arch. Course under Dept. of Technical Education & Training, Govt. of W. Bengal.
- She acted as the Jury member of National jury Board of selection of Design entries for the Students’ Design competition organized by INSDAG.
- Prof. Jayita Guha Niyogi acted as Organizing Committee member of 2 days National Conference on Sustainable Development Through Innovative Research in Science and Technology supported by DST PURSE Programme held in Jadavpur University on 28-29th September, 2012.
• Prof. Jayita Guha Niyogi acted as Reviewer of Journal of Architectural Engineering and Design Management’, Taylor& Francis, UK.

• She acted as the Convener of Planning Education Sub Committee of Institute of Town Planners, India, West Bengal Chapter.

• Prof. Jayita Guha Niyogi is the External Expert member of Doctoral research committee of Prof. H. Bohra in Dept. of Arch. T&RP, Bengal Engg. & Sc. Univ., Shibpur.

• Dr. Shivashish Bose has supervised (Co-supervisor along with Supervisor Prof. Raffaele Paloscia) the research work of Master Degree Thesis titled “Politiche e Pratiche di Riqualificazione degli Slums a Kolkata” of Ms. Francesca Gronchi of University of Florence, Italy, during October-December 2012 (Field & Research work of Ms. Gronchi in Kolkata). Ms. Gronchi stood First amongst students in her class in Thesis Examination (in 2013) scoring 100%.

• Dr. Shivashish Bose supervised (solely) the Ph.D. research titled “Development Control of Organic Human settlements in Urban and Peri-Urban Areas for Physical and Environmental Sustainability of Housing Stock – Case Study Kolkata” of Architect Mr. Goutam Banerjee who registered under Jadavpur University on 12.05.2009, submitted thesis on 21.05.12 and awarded Ph.D. on 04.12.2012.

• Dr. Suchandra Bardhan served as a member of Jury, National Students’ Design Competition (NSDC) organized by School of Planning & Architecture, Bhopal, 6-8 October, 2012.

• Dr. Suchandra Bardhan is the Expert member of the Student Research Committee (SRC) for the doctoral work of PhD scholar Ms. S. Raje at School of Planning & Architecture, Bhopal.

• Dr. Suchandra Bardhan was invited to act as External Examiner for the Final Jury and viva-voce for Final Year B. Arch. Thesis Examination, Dept. of Arch. & Regional Planning, IIT-Kharagpur, 8th-9th May, 2013.

• Dr. Suchandra Bardhan was nominated member of Board of Studies, Dept. of Interior Designing, J.D.Birla Institute of Home Sciences by Hon’ble Vice Chancellor, Jadavpur University in July 2013.

• Dr. Sanjib Nag is a Member of the Education & Examination Sub-Committee, of the IIA, since 2009.

• Dr. Sanjib Nag is a Member of the Board Of Studies, of the West Bengal University Of Technology, since 2011.

• Dr. Sanjib Nag served a Member of the Selection Committee, of the Public Service Commission, West Bengal, in 2012.

• Dr. Sanjib Nag served as a Member of the Organizing Committee, for the Annual Convention of the IIA, in 2012.

• Dr. Sanjib Nag is a Member of the Doctoral Committee, of the Dept. of Arch. T&RP, Bengal Engg. & Sc. Univ., Shibpur, since 2013.

• Dr. Sanjib Nag is a Member of the P.G. Syllabus Review Committee, of the J.D. Birla Institute, Kolkata, since 2013.

• Sri Debashis Das is the member of the Souvenir Committee for Indian Institute of Architects, West Bengal Chapter for IIA Convention 2012.

• Sri Debashis Das is the member of the Committee for the survey of trees, gardens and water bodies of Jadavpur University, which was formed for making suggestions for planting of new trees, clearing of jungles and beautification of water bodies.
CHEMICAL ENGINEERING

Phone : + 91-33-2414-6378
Int. : 2457-2246
H.O.D. : Prof. Avijit Bhowal
E-mail : hod@chemical.jdvu.ac.in

1 A. Courses Offered:

<table>
<thead>
<tr>
<th>Name of Courses</th>
<th>Course Duration</th>
<th>Intake Capacity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelors Degree in Chemical Engineering</td>
<td>4 years</td>
<td>86</td>
</tr>
<tr>
<td>Master’s Degree in Chemical Engineering</td>
<td>2 years</td>
<td>19</td>
</tr>
<tr>
<td>Master’s Degree in Bioprocess Engineering</td>
<td>2 years</td>
<td>10</td>
</tr>
</tbody>
</table>

B: Number of Faculty Members:
Sanctioned post – 29
Currently – 17

2 A. Area of Research Activities:
- Bioprocess Engineering
- Energy Engineering
- Industrial Pollution Control & Waste management
- Interfacial Science and technology
- Membrane Separation
- Nano-Science & Technology
- Process intensification

B: Major Research Projects:

Prof. Siddhartha Datta & Prof. Avijit Bhowal
[1] Title: Study on the Enrichment and Adaptability on Marine Water of Microbial Consortia used in Biodigester Technology (ongoing)
Funding agency: Defence Research Laboratory

Prof. Chiranjib Bhattacharjee
[1] Title: Production and Purification of â-galactosidase from Milk Whey-based Lactic Acid Bacteria using Fermentation and Membrane-based Separation Techniques
Funding Agency: UGC

[2] Title: Nano-material based membrane in water purification (ongoing)
Funding agency: DST, Govt. of India (Indo-Korean)

[3] Title: From Grey to Green: How to Improve the Sustainability of Wastewater and Drinking Water
Funding agency: DST, Govt. of India sponsored New Indigo project (Indo-EU project)
[4] Title: Conversion of de-proteinated whey to ethanol
Funding Agency: AICTE

Prof. Chandan Guha
Funding Agency: ISRO

Prof. Kajari Kargupta
Funding Agency: DST, Govt. Of India
[2] Title: Development of polybenzimidazole based novel composite electrolyte membrane for high temperature fuel cell
Funding Agency: UGC

Dr. Ujjaini Sarkar
[1] Title: Environmental Observatory: Modelling the Photochemistry of Surface Ozone and its Unusual Precursors with a Regional Model
Funding Agency: ISRO-GBP/-ATCTM
[2] Title: Application of Functionailised Activated Carbon for treating pharmaceutical wastewaters containing a mixture of chlorhexidinegluconate and cetrimide
Funding Agency: DST
[3] Title: Finite Element Modelling to Predict the Evolution of microstructure and properties of metastable stainless steel during forming and subsequent heat treatments
Funding Agency: Swedish Research Council3

A. Invited Lectures Delivered:

F. Seminar/Workshop/Conference/Symposium Attended:

INTERNATIONAL CONFERENCES
2. Debreka Ghosh and Ujjaini Sarkar, Modeling the Photochemical formation of ozone at a surface site in Kolkata, India, 39th COSPAR Assembly 14-22, July, 2012, Mysore, Karnataka, India.

NATIONAL CONFERENCES
2. Debreka Ghosh and Ujjaini Sarkar, Photolytic Rate Constant of Nitrogen dioxide (): Estimation using Tropospheric Ultra-Visible Radiation Model, National Conference on Sustainable
Development through Innovative Research in Science and Technology, 28-29, September 2012, Jadavpur University, India

3. Dipanjan Ghosh and Ujjaini Sarkar, Evaluation of Unusual Levels of SO\textsubscript{2} at an urban site of Kolkata using HYbrid Single Particle Lagrangian Integrated Trajectory (HYSPLIT) Model, National Conference on Sustainable Development through Innovative Research in Science and Technology, 28-29, September 2012, Jadavpur University, India

4. Somdutta Singha and Ujjaini Sarkar, Modification of Granular Activated Carbon by HNO\textsubscript{3}: Comparison of the Adsorption properties of Polar with Non-polar Pollutants, National Conference on Sustainable Development through Innovative Research in Science and Technology, 28-29, September 2012, Jadavpur University, India


H. Orientation Course/Refresher Course Attended:

Dr. Ujjaini Sarkar, Refresher Course on Modern Chemical Sciences: Theories and Applications, 2\textsuperscript{nd} January, 2013 - 22\textsuperscript{nd} January, 2013 Jadavpur University.

4. C. Articles Published in Journals:

Prof. Siddhartha Datta


16. A. Choudhury, S. Sengupta, C. Bhattacharjee, S. Datta, Effects of co-solutes on Cr(VI) removal by micellar enhanced ultrafiltration (MEUF) process. *Desalination and Water Treatment* 44 (2012) 67-74. [citation: 0, IF: 0.852, SJR: 0.267, SNIP: 0.299]


Prof. Ranjana Chowdhury


5. R. De, R. Chowdhury, Hydrodynamics of a packed bed biofilm reactor (PBBR) for the removal of Hg²⁺ ion - RTD experiments with biotic and characteristically similar abiotic films and axial dispersion model. *Journal of Chemical Technology and Biotechnology* 88 (2013) 1612-1621.


Prof. Chiranjib Bhattacharjee


18. S. Bhattacharyya, S. Datta, C. Bhattacharjee, Sonication boost the total reducing sugar (TRS) extraction from sugarcane bagasse after dilute acid hydrolysis. Waste and Biomass Valorization 3 (2012) 81-87.


Prof. Avijit Bhowal


Prof. Kajari Kargupta


Dr. Chanchal Mondal


**Dr. Ujjaini Sarkar**


**Dr. Rajat Chakraborty**


**Mrs. Ratna Dutta (Paul)**

• **Name of the Department**: Civil Engineering Department

• **Year of Establishment**: 1956

• **Faculty to which the Department is Attached**: Faculty of Engineering & Technology

• **Names of Programmes Offered (UG, PG, MPhil, PhD, Integrated Masters; Integrated PhD, DSc, DLitt, etc.):** Bachelor of Civil Engineering, Bachelor of Civil Engineering (Part time evening course), Master of Civil Engineering, PhD programmes for full time and external part time students

• **Participation of the Department in Courses Offered by Other Departments**: UG courses of Department of Architecture and PG courses of departments like Pharmacy, Chemical Engineering, Food Technology, Construction Engineering, M Phil in Environmental Science

• **Faculty Profile with Name, Qualification, Designation, Area of Specialization, Experience:**

  Name: Dr. Somnath Ghosh  
  Qualification: BE, MTech, PhD, MBA  
  Designation: Professor  
  Specialization: Structural Engineering and Material  
  Experience: 30 years

  Name: Dr. Sudipto Ghosh  
  Qualification: BE, MCE, PhD  
  Designation: Professor  
  Specialization: Geotechnical Engineering  
  Experience: 10 years in industry and 18 years of teaching

  Name: Prof. Sankar Chakrabarty  
  Qualification: BE, M Tech (IITKGP)  
  Designation: Professor  
  Specialization: Geotechnical Engineering  
  Experience: 5 years in industry and 31 years of teaching

  Name: Dr. S. N. Mukherjee  
  Qualification: PhD (IITKGP), MTech (IITKGP), BCE (CU)  
  Designation: Professor  
  Specialization: Environmental Engineering  
  Experience: 30 + years

  Name: Dr. S. P. Mukherjee  
  Qualification: PhD (IITKGP), MCE (JU), BCE (JU)  
  Designation: Professor  
  Specialization: Soil Mechanics & Foundation Engg.  
  Experience: 29 years
Name: Dr. R. B. Sahu  
Qualification: Ph.D., M.C.E., B.C.E.  
Designation: Professor  
Specialization: Soil Mechanics & Foundation Engg.  
Experience: 25 years

Name: Dr. Saroj Mandal  
Qualification: BCE, MCE, Ph.D  
Designation: Professor & Head  
Specialization: Structural Engineering  
Experience: 22 years

Name: Dr. A. Guha Niogy  
Qualification: BCE, MCE, Ph.D  
Designation: Professor  
Specialization: Structural Engineering, Bridge Engineering, and Transportation Planning  
Experience: 27 years

Name: Prof. Sibnath Chakraborty  
Qualification: BCE, MCE,  
Designation: Professor  
Specialization: Environmental Engineering  
Experience: 22 years

Name: Dr. D. Chakraborty  
Qualification: PhD, M Tech (IIT), BCE (JU)  
Designation: Professor  
Specialization: Structural Engineering  
Experience: 18 years

Name: Dr. Partha Bhattacharya  
Qualification: PhD, M Tech (IIT), BCE (JU)  
Designation: Associate Professor  
Specialization: Structural Dynamics and Aerodynamics  
Experience: 14 years

Name: Dr. Anupam Deb Sarkar  
Qualification: PhD, M Tech (IIT), BCE (JU)  
Designation: Associate Professor  
Specialization: Environmental Engineering  
Experience: 14 years

Name: Dr. Amit Dutta  
Qualification: PhD, M Tech (IIT), BCE (JU)  
Designation: Associate Professor  
Specialization: Environmental Engineering  
Experience: 14 years

Name: Dr. G Bhandari  
Qualification: PhD, ME (JU), BE in Civil (B.E. College, CU)  
Designation: Associate Professor  
Specialization: Geotechnical Engineering & Remote Sensing
Experience : 13 years

Name: Sumit Kumar Biswas
Qualification: M E (JU) , BCE (BEC)
Designation: Associate Professor
Specialization: Foundation and Geotechnical Engineering
Experience : 5+ years of Industry and 8+ years of teaching

Name: Subhashish Roy Chowdhury
Qualification: PhD, MCE (JU), BE (JU)
Designation: Assistant Professor
Specialization: Structural Engineering
Experience : 6+ years

Name: Pritam Aitch
Qualification: MCE (JU), BE (JU)
Designation: Associate Professor
Specialization: Transportation Engineering Geotechnical Engineering & Remote Sensing
Experience : 10 years

Name: Kalyan Kumar Mondal
Qualification: MCE (JU), BE (JU)
Designation: Assistant Professor
Specialization: Structural Engineering
Experience : 2 - industry, 2 - research, 6 - teaching

Name: Sreyashi Das Pal
Qualification: MCE (JU), BE (JU)
Designation: Assistant Professor
Specialization: Structural Engineering
Experience : 8 + years

Name: Dr. Tumpa Hazra
Qualification: PhD, MCE (JU), BE (JU)
Designation: Assistant Professor
Specialization: Environmental Engineering
Experience : 3 + years

Research Thrust Areas as Recognized by Major Funding Agencies:

- Bacterial Concrete : AICTE, DBT, DRDO, DST
- High Volume fly ash concrete : DST - PURSE
- Geopolymer concrete : AICTE
- Phytoremediation Study for Treatment of Community Waste Water and Some Toxic Substances by Aquatic and Wetland Plants.
- Seismic Hazard Analysis for Kolkata City with Emphasis on Local Site Conditions
- Numerical and Experimental Study on Active Control of Coupled Structural Acoustic (CSA)
- Problems Involving Laminated Composite Structures
• Evaluation of Mechanical, Durability and Microstructural Properties of High volume Fly ash Concrete
• A Study to Correlate Air and Noise Quality with Urban Traffic Characteristics for Kolkata Metropolis
• Contaminant Transport (Heavy Metals Pollution)
• Soil structure interaction
• Self-compacting concrete (SCC)

**Ongoing Projects from a) National b) International Funding Agencies and c) Total grants received.**

Give the Names of the Funding Agencies, Project Titles and Grants Received Project-wise.

**Funding Agencies : Department of Biotechnology**
Project Titles: Self Healing Concrete: A Microbial approach to find out an alternative in sustainable Concrete Technology
Grants Received: Rs 42 lacs

**Funding Agencies : DST**
Project Titles: Seismic Hazard Analysis for Kolkata City with Emphasis on Local Site Conditioning
Grants Received:

**Funding Agencies : J.U. (Under Research Support from J.U. Research Fund)**
Project Titles: Pile Response under lateral load in layered soil
Grants Received: Rs 0.5 Lakhs

**Funding Agencies : J.U. (Under Innovative Research Support from J.U.)**
Project Titles: Response of Pile Group under lateral load in layered soil
Grants Received: Rs 0.5 Lakhs

**Funding Agencies : Jadavpur University Research Grant**
Project Titles: Decentralised Management of Urban Solid Waste: R. R. Plot Kolkata as a Case Study
Grants Received: Rs 0.5 Lakhs

**Funding Agencies : DRS-I, DST**
Project Titles: Special assistance programme
Grants Received: Rs 73 Lakhs

**Funding Agencies : DST – PURSE**
Project Titles: A land use cum stochastic transportation model for a better kolkata
Grants Received: Rs 41 Lakhs

**Funding Agencies : DST – PURSE**
Project Titles: Numerical and experimental study on active control of coupled structural acoustic (csa) problems involving laminated composite structures
Grants Received: Rs 21 Lakhs
Inter-Institutional Collaborative Projects and Associated Grants Received
a) National collaboration:
   LAFARGE AGGREGATES & CONCRETE INDIA PVT. LTD, Mumbai, 2012
b) International collaboration:
   BASF Construction Chemicals Ltd., Italy, 2012.

Publications:

A. International Journals


18. Sanjoy Das Neogi D. Chakravorty A.Karmakar; Behaviour of multilayered simply supported composite hypar shell roof impacted by a solid striker - A finite element approach, Journal of Structural Engineering. Impact factor = 0.8902; In press.


22. K. Bakshi, D. Chakravorty, Relative static and dynamic performances of composite conoidal shell roofs, Steel and Composite Structures, An International Journal Impact factor = 0.47; In press.


B. National Journals


C. International Seminar/Conference Publications

1. Prof S.N Ghosh, Durability study of Geopolymer paste blended with Blast furnace slag, International Conference on Global Trends In Engineering and Management, Nagpur, ICJTM,22nd March,2013

2. Mandal.S ,Microwave Thermal Activation Effect On Fly Ash Based Geopolymer Concrete International conferences for International conference on Recent Advances on Concrete Technology and Sustainability Issues to be held at Prag , Czech Republic on 31 October - 2 November 2012


15. S. Das Noegi, D. Chakravorty, A. Karmakar, Dynamic analysis of simply supported laminated composite hypar shell roof subjected to oblique impact by finite element. 17th International Conference on Composite Structures (ICCS17), FEUP, Porto, Portugal June 17-21, 2013.


22. Partha Bhattacharya, Oliver Unruh, Michael Rose; Noise Transmission Analysis through a Mechanically Coupled Finite Double Wall Panel, ACOUSTICS 2013, NPL, New Delhi, Nov. 10 – 15, 2013


National Seminar/Conference Publications


3. S.N. Mukherjee, S K Biswas: " Vegetative cover as bio-technical erosion Controller towards sustainable development and biodiversity conservation”, National Seminar on "Advancement of


SEMINARS/CONFERENCES/WORKSHOPS ORGANIZED :

The department has conducted a 5-day training program for the teachers of the "West Bengal State Council of Vocational Education and Training ".

OTHERS

- Dr. Partha Bhattacharya has visited Germany under the following Program : DAAD Reinvitation Program, Oct – Nov 2012, Germany.

- Dr G Bhandari received the Erasmus Mundus Mobility Scholarship Award to visit the University of Nice Sophia Antipolis (UNS), Nice, France, in the Academic Staff Mobility, for one month during September 04 to October 05, 2012, in the frame of the Erasmus Mundus EMMA-West, as visiting Faculty.

- Dr. Dipankar Chakravorty is acting as reviewer in a number International Journals including ASCE - E.Mech.He is also the Co-Editor in Chief of " International Journal of Management Science and Engineering Management ".He chaired the Session on "Composite Structures" on 7th December , 2012 in the Third Asian Conference on Mechanics of Functional Materials and Structures held at Department of Applied Mechanics , IIT Delhi, India.

**COMPUTER SCIENCE & ENGINEERING**

Phone : +91-33-2413-1766
Int. : 2457-2214
H.O.D : Professor Sivaji Bandyopadhyay
E-mail : hod@cse.jdvu.ac.in
1. **Courses Offered**: Bachelor of Computer Science and Engineering (BCSE)  
   Master of Computer Science and Engineering (MCSE)  
   Master of Technology  
   Master of Computer Applications (MCA)  
   Ph.D. (Engg.)

2. **Number of Faculty Members**: 29

3. **Area of Research Activities** (Broad Areas):

4. **Major Research Project**: (Departmental/Individual, Name of the Project/Funding Agency)
   - **Sivaji Bandyopadhyay**:
     1. IL-ILMT (Indian Language to Indian Language Machine Translation System) May 2010 to April 2014, Funded by Department of Electronics and Information Technology, Government of India.
     2. EILMT (English to Indian Languages Machine Translation) July 2010 to June 2014, Funded by Department of Electronics and Information Technology, Government of India.
     3. CLIA Phase II (Cross Lingual Information Access) September 2010 to June 2014, Funded by Department of Electronics and Information Technology, Government of India.
     4. Sentiment Analysis where AI meets psychology, Jointly with Tokyo Institute of Technology, Japan, funded by DST Government of India.
     5. An advanced platform for question answering system, jointly with IRIT, Toulouse, France, funded by DST, Government of India.
     6. Answer Validation through Textual Entailment, jointly with National Polytechnic Institute, Mexico, funded by DST Government of India.
   - **Debesh Kumar Das**:
     7. Project on Quantum Computing: Rs. 12 Lakhs: CSIR
     8. Project on Boolean Functions: Rs. 10 Lakhs: UGC
   - **Sarmistha Neogy**:
     9. STUDY AND DESIGN OF DEPENDABLE MOBILE COMPUTING SYSTEMS, funded by UGC.
     10. Design of a Secure and Trusted Wireless Sensor Network for border and perimeter tracking, funded by UGC UPE Phase II.
   - **Ujjwal Maulik**:
   - **Sanjoy Kumar Saha**:
13. Threat and Attack Modeling of Heterogeneous Enterprise Networks, Funded by SAG, DRDO.
14. Content Based Video Indexing and Retrieval Using Visual and Temporal Features (Phase II), Funded by Indian Statistical Institute, Kolkata.
16. Qt-based Graphical User Interface Server, Funded by ASL, DRDO.

J. K. Sing
17. Intensity Inhomogeneity Correction in Magnetic Resonance Images, AICTE, 2009-12, Rs. 4 lakh.
18. Development of Robust Face Recognition Systems for Video, UGC, 2010-13, Rs. 7,28,261/-

Nandini Mukherjee & Sarbani Roy:
19. Monitoring Air Pollution Using GIS and Sensor Technology” funded by UGC. P.I.: Nandini Mukherjee

Debotosh Bhattacharjee:
22. Design and Development of Facial Thermogram technology for Biometric Security System (Principal Investigator along with Prof. M. Nasipuri as Co-investigator) UGC, Govt. of India, 2010-2013, 3 years, Rs. 10,76,834/-
23. Development of 3D Face Recognition Techniques Based on Range Images(Principal Investigator along with Prof. M. Nasipuri as Co-investigator)DIT, MCIT, Govt. of India, 2012-2015, 3 years, Rs. 66,21,250/-
24. Erasmus Mundus Mobility with Asia, Coordinator: Universidade de Evora, Portugal(Principal Investigator along with other Co-investigators) European Commission, Brussels, 2012-2015, 3 years, Rs. 2,80,000/- (approx)

Susmita Ghosh:
25. Collaborative Program: India-Trento Program for Advanced Research (ITPAR) Project entitled “Advanced Techniques for Remote Sensing Image Processing & Recognition”. Indian Institute of Technology (Bombay), Indian Statistical Institute (Kolkata), Jadavpur University (Kolkata) and University of Trento (Italy) are the collaborators of this joint research project. Duration: Phase I: Three years (start: 21.01.2004). Phase 2: Three years (start: 14.03.2008) Own designation (Principal/Co-investigator/Co-ordinator): Principal Investigator of JU Component Funding Authority: Department of Science & Technology (Government of India) and Ministry of Foreign Affairs and Autonomous Province of Trento (Government of Italy). The project cost, borne by the DST on behalf of Indian side is Rs. 90,79,400/- (for phase I) and Rs. 1,39,11,000/- (for phase II) for the three Indian Components.

Chandreyee Chowdhury:
26. FOSS-based Technology for smart handhelds; funded by UGC UPE Phase II.

Subhadip Basu:
27. “Segmentation of the carotid vasculature in human CT angiography”, Funded by- DST FAST-TRACK, Govt. of India, Duration- 3 years, 2013-2016, Rs. 8,58,000/-, Role: P.I.
28. “Design of Multimodal Biometric Systems” under the UGC Sponsored UPE-II Program under Mobile Computing and Innovative Applications. Duration- 2 years, 2012-2014, Rs. 13,63,200/- (Departmental/ Individual, Name of the Project/Funding Agency), Role: P.I.

Kamal Sarkar

3. A. Invited Lectures Delivered/Sessions Chaired:

Sivaji Bandyopadhyay:

Debesh Kumar Das:
2. Chairing a session in VLSI Design and Test Symposium, July 2012.
4. Lecture on “Core-Based Test Time Optimization for 3-D Integrated Circuits” at Nara Institute of Science and Technology, Nara, Japan, November 2012.

Ujjwal Maulik:

Sanjoy Kumar Saha:
10. Introduction to Image Processing – Lecture delivered in the UGC sponsored refresher course held at Burdwan University, 2012

Sarbani Roy:
13. "Internet of Things", in winter School on "Recent Advances in Wireless and Mobile Computing and Communications", organized by the School of Mobile Computing and Communications, Jadavpur University, 15 January 2013.
14. "Wireless Sensor Networks”, in a one day seminar organized by CSE dept. in association with CSI Student Chapter of MCKV Institute of Engineering, Howrah.

Debotosh Bhattacharjee:
15. "Image Fusion Techniques" organized by RCC Institute of Information Technology, Kolkata on 24th July 2012.

Susmita Ghosh:

Nandini Mukherjee:

Chandreyee Chowdhury:
18. “MANET Reliability” in winter School on “Recent Advances in Wireless and Mobile Computing and Communications”, organized by the School of Mobile Computing and Communications, Jadavpur University, January 2013.

Subhadip Basu:
20. Delivered invited lecture on Multi-scale opening of conjoined structures in shared intensity space at The Interdisciplinary Centre for Computational and Mathematical Modelling (ICM), University of Warsaw, Poland, 2012.
21. Delivered invited lecture on Multi-scale opening of conjoined structures in shared intensity space at CMATER, Jadavpur University, Date- 22.02.2013.

B. Seminar/Workshop/Conference/Symposium Attended:

Sivaji Bandyopadhyay :

Debesh Kumar Das:

Sarmistha Neogy:
5. 14th International Conference on Distributed Computing and Networking, January 3 – 6, 2013, Mumbai, India.

Debotosh Bhattacharjee:
6. IS & T/SPIE Symposium on Electronic Imaging, 3-7 February 2013, San Francisco, USA.

Susmita Ghosh:

C. Seminar/Workshop/Conference/Symposium Organized:

Sivaji Bandyopadhyay :
D. **Orientation Courses/Refresher Courses Attended**: (Name of the Teacher, Title of the Course, Duration, Place)

E. **Orientation Courses/Refresher Courses Organized**: (Name of the Teacher, Title of the course, if any, Duration, Place)

**Nandini Mukherjee & Debesh Kumar Das:**

1. Organized a refresher course on “Free Software Technologies” during 26th November to 15th December, 2012 at Jadavpur University.

4. A. **Books/Monographs etc. Published**: (Name of the Teacher, Name of the Book, Name of the Publisher)


4. B. **Articles Published in Journals**: (Name of the Teacher, Name of the Articles, Name of the Journal, Date of Publication, Volume)

   **Sivaji Bandyopadhyay**:


**Debesh Kumar Das**:


**Sarmistha Neogy**:

Ujjwal Maulik:


Sanjoy Kumar Saha:


J. K. Sing


Nandini Mukherjee & Sarbani Roy:


Debotosh Bhattacharjee:


S. Basu, N. Das, R. Sarkar:


Susmita Ghosh


Kamal Sarkar:


C. Articles Published in Conferences:

Debesh Kumar Das:


Sarmistha Neogy & Chandreyee Chowdhury:


Ujjwal Maulik:


Sanjoy Kumar Saha:

17. Siddhartha Banerjee, Subhabrata Datta, Biplab Paul, Sanjoy Kumar Saha, Segmentation of three phase micrograph: an automated approach, CUBE-2012, Pune, India

18. Arijit Ghosal, Rudrasis Chakraborty, Bibhas Chandra Dhara, Sanjoy Kumar Saha, Song/instrumental classification using spectrogram based contextual features, CUBE- 2012, Pune, India


20. Arijit Ghosal, Rudrasis Chakraborty, Bibhas Chandra Dhara, Sanjoy Kumar Saha, Genre Based Classification of Song Using Perceptual features, International Conference on Advanced Computing, Networking and Informatics (ICACNI), Mysore, India, 2013 (springer)

J. K. Sing


Nandini Mukherjee & Sarbani Roy:


**Debotosh Bhattacharjee:**


49. Mrinal Kanti Bhowmik, Debotosh Bhattacharjee, Dipak Kumar Basu, Mita Nasipuri, " Human face Recognition Using Multisource Fusion", Track of Multi Sensor, Multisource Information Fusion:

S. Basu, N. Das, R. Sarkar:


59. Brijesh Kumar Srivastava, Subhadip Basu, Ujjwal Maulik, and Dariusz Plewczynski. “Prediction of E. coli Protein-Protein Interaction Sites Using Inter-Residue Distances and High-Quality-Index...


64. Ankita Banerjee, Sudipta Dey, Shubhankar Parui, Mita Nasipuri and Subhadip Basu, “Synthetic reconstruction of human carotid vasculature using a 2-D/3-D interface” accepted for publication at the second ICACCI, Mysore, 2013.

Susmita Ghosh:


D. Book Chapters


5. **Collaborative Programmes : Ujjwal Maulik:**

   Visited German Cancer Research Centre (DKFZ), Germany in 2012 as a Humboldt Fellow.

**Susmita Ghosh:**

   Amount: 2,999,025 Euro

2. Acting as local coordinator on behalf of Jadavpur University for Erasmus Mundus Project India for EU selected under EACEA/ 35/08 Lot (URL: www.india4eu.eu) Funding agency: European Union
   Duration: 15.07.2009 – 14.07.2013
   Amount: 4,680,000 Euro

**Subhadip Basu:**

   A collaborative project with University of New South Wales (Australia) and Chulalongkorn University (Thailand) as partners working on "Image Analytic Approaches to DNA Fingerprint based species classification".

**Sivaji Bandyopadhyay:**

   Dean, Faculty of Engineering and Technology, Jadavpur University

**Ujjwal Maulik:**

   Awarded Senior Associate, The Abdus Salam International Centre for Theoretical Physics (ICTP) (http://assoc.ictp.it/associateship-scheme/list-associates/), Italy, since 2012.

**Nandini Mukherjee:**


**Sarbani Roy:**
3. Awarded cLink (with the support of Erasmus Mundus Programme of the European Union) Postdoctoral Fellowship 2012-2013

Subhadip Basu:
1. Received EMMA West Post-Doctoral fellowship awarded by European Union, at University of Warsaw, Poland, from Oct 2012 to Dec 2012.
2. US Patent:

CONSTRUCTION ENGINEERING
(SALT LAKE)

Phone : +91-33-2335-5211
Int. : 6116
H.O.D. : Prof. Subhajit Saraswati
E-Mail : hod@const_jusl.ac.in/ssaraswati@const.jusl.ac.in

1. A. Course 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

1. B. Number of Faculty Members (Permanent) : 08

2. A. Area of Research Activities (Board Areas):
   Structural Health Monitoring
   Non-destructive Evaluation and Restoration of Structures
   Concrete Technology – High Performance Concrete
   Highway Engineering – Pavement Design
   Geo-Environmental Engineering – Phytoremediation of Heavy Metals

2. B. Major Research Project :
   Coordinator : Prof. P.P. Biswas & Prof. S. Saraswati
   Name of the Project : High Performance Concrete with Blended Cement
   Funding Agency : AERB
   Coordinator : Dr. K. Bandyopadhyay

   Name of the Project : Study on the Feasibility of Removal Inorganic Toxic contaminants from water and waste water using coagulation –Flocculation method.
   Funding Agency : Department of Environment, Govt of WB
Coordinator: Dr. D. Bandyopadhyay

Name of the Project: Comparative Study on Risk & Vulnerability of Earthquake in Different Cities / Countries
Funding Agency: Tata Steel Company Limited

3. A. Invited Lectures Delivered / Sessions Chaired:
Name of the Teacher / Type of Participants / Name of the Seminar/Conference Place/ Duration:

Dr. S. Saraswati co-chaired Technical Session – IV on Concrete Corrosion in Sixteenth National Congress on "Corrosion Control", organized by National Corrosion Council of India at Kolkata, August 2012.

Dr. S. Saraswati delivered an invited lecture on 'Concrete Durability and Related issues' during Concrete Day Celebration at Indian Concrete Institute, Manipur Centre in September 2012.

Dr. S. Saraswati delivered an invited lecture to engineers of McNally Bharat Engg. Co. Ltd. On Repair and Rehabilitation of Structures in August 2012.

Dr. Debasish Bandyopadhyay delivered an invited talk on "Modern Concrete - An Engineered Material" in the Workshop on "Recent Trends in Engineering Materials (RTEM-2013) at Satyasai Engineering College, Balasore, Odisha on 14th September, 2013.

Dr. Debasish Bandyopadhyay delivered an invited talk on "Structural Engineering for Infrastructural Development" in the National Seminar on "Infrastructure Development in West Bengal", organized by Alliah University, Kolkata on 1st June, 2013.

Dr. Debasish Bandyopadhyay delivered an invited lecture on "Seismic Design: Earthquake Resistant Structure" at the 'Centre of Excellence' program in Patna on 16th March 2013.

Dr. Debasish Bandyopadhyay delivered an invited lecture on "Structures in the New Millennium" at Brainware Engineering College, Sabita Devi Educational Trust, Barasat on 5th February, 2013.

Dr. Debasish Bandyopadhyay delivered invited lecture series on "Basic Concrete Technology, Corrosion Damage Management of Concrete, Quality Control and Seismic Resistant Design and Construction", to the Engineers at "Three Weeks Training on Harbour Engineering & Equipment Management" December 07 - 27, 2012 at Andaman Lakshadweep Harbour Works, Port Blair.

Dr. Debasish Bandyopadhyay delivered an invited lecture on "Structural Health Monitoring by Statistical System Identification Technique using Limited Static & Dynamic Data", Workshop on Structural Health Monitoring and Rehabilitation, to be held at BITS Pilani, from 19 – 20 September, 2012.

Prof. P.P. Biswas: Delivered two Special lectures in orientation course organized by Academic Staff College – Jadavpur University on 'Technology Adaptation and Sustainable Development'

Dr. K. Bandyopadhyay delivered special lectures on 'Construction safety' in a Short Term Certificate Course on Safety Management, Jadavpur University

B. Seminar/Workshop/Conference/Symposium Attended:
Dr. D. Bandyopadhyay participated in Sixteenth National Congress on "Corrosion Control", organized by National Corrosion Council of India at Kolkata, August 2012.

Prof. S. Saraswati participated in Sixteenth National Congress on "Corrosion Control", organized by National Corrosion Council of India at Kolkata, August 2012.

C. Seminar/Workshop/Conference/Symposium Organized:
Technical Seminar (National) on Corrosion in Civil Engineering Structures-Awareness and Mitigation of corrosion in association with Indian Concrete Institute (2012)
Collaborative Training program for skill development of technical personnel with Indian Concrete Institute (2012)

4. A Books/Monographs etc. Published:
8th reprint of Book Construction Technology, by SARKAR and SARASWATI published by Oxford & IBH

B. Articles Published in Journals/Conference proceedings in the Year 2012-13


Debasish Bandyopadhyay & Swarnava Ghosh (2012) “Parameter Identification of Plate Structures from Incomplete Noisy Static Test Data”, accepted in International Conference on Computational Mechanics and Simulation (ICCMS), to be held at IIT Hyderabad, 10-12 December, 2012.

Debasish Bandyopadhyay & Suprateek Roy (2012) “Damage Identification of Truss from Limited Static Data”, accepted in International Conference on Computational Mechanics and Simulation (ICCMS), to be held at IIT Hyderabad, 10-12 December, 2012.

Debasish Bandyopadhyay, Ahana Mukherjee & N. P. Banerjee (2012), "Numerical study on Shape Optimisation of Super Adobe Structure against wind load due to Cyclone", accepted in
International Conference on Computational Mechanics and Simulation (ICCMS), to be held at IIT Hyderabad, 10-12 December, 2012.


5. Collaborative Programmes:

"Comparative Study on Risk & Vulnerability of Earthquake in Different Cities / Countries" funded by Tata Steel Company Limited, 2012.

Association of Corrosion Engineers , for research and training of industrial peoples, at Dept of Construction Engineering, Jadavpur University.

MoU with Irrigation & Waterway Department of the Government of West Bengal and Jadavpur University for carrying out the evaluation study on flood related scheme of the “Raising & strengthening of Sundraban Embankment. Collaborative Programmes: “Comparative Study on Risk & Vulnerability of Earthquake in Different Cities / Countries” by Dr. D. Bandyopadhyay funded by Tata Steel Company Limited, 2012.

Collaborated with ‘Association of Corrosion Engineers’, for research and training of industrial peoples, Dept of Construction Engineering, Jadavpur University.

Collaborated with Indian Concrete Institute & ACC Limited for Training of Masson on "Good Construction Practices", Dept of Construction Engineering, Jadavpur University, August, 2012.

6. Major Achievements:

In collaboration with Indian Concrete Institute , the Students Chapter of ICI (Eastern zone ) has been opened at Dept of Construction Engineering.
Prof. P. P. Biswas is acting as Cordinator - State Technical Agency (STA) for Murshidabad and North 24 pgs to look after the PMGSY Road network plan under West Bengal State Rural Development Agency (WBSRDA) & National Rural Road Development Agency (NRRDA).

Dr. S. Saraswati has been elected as honorary Vice President of Indian Concrete Institute.

ELECTRICAL ENGINEERING

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H.O.D.: Prof. Nirmal Kr. Deb
E-mail: hod@ee.jdvu.ac.in

1. A. Courses Offered:

<table>
<thead>
<tr>
<th>Course Name</th>
<th>Duration</th>
<th>No. of Students Enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.E.E.</td>
<td>4 Yrs.</td>
<td>112</td>
</tr>
<tr>
<td>B. E. E. (Evening)</td>
<td>5 Yrs.</td>
<td>48</td>
</tr>
<tr>
<td>M. E. E.</td>
<td>2 Yrs.</td>
<td>30</td>
</tr>
<tr>
<td>M. C. S. E.</td>
<td>2 Yrs.</td>
<td>16</td>
</tr>
<tr>
<td>M.E. Illumination Engg.</td>
<td>2 Yrs.</td>
<td>20</td>
</tr>
<tr>
<td>Ph.D.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

CONTROL SYSTEM SECTION

1. B. Number of Faculty Members: 05 (Five)

2. A. Areas of Research Activities:

- Design and research in the areas of Real Time Computer Control Systems and Safety Critical and High Consequence software
- Estimation and filtering techniques
- Design review and audit of aero engine control system, aircraft stabilization, railway signaling and interlocking systems.

B. Major Research Projects:

Name of the Project: “Devices and Systems” subgroup under University with Potential for Excellence (UPE) – Phase II Programme, Jadavpur University, Kolkata, India
Funding Agency / Sponsor: UGC, India
Faculty Members involved: Dr. Madhubanti Maitra “Devices and Systems” subgroup
Project Status: On-going

Name of the Project: Fault Detection and Identification for Nonlinear Hybrid Plants
Funding Agency / Sponsor: Advanced System Laboratory, DRDO, Hyderabad
Faculty Members involved: Dr. Smita Sadhu
Project Status: On-going

4. A. Books/Monographs etc. Published:


**B. Articles Published/Accepted in Journals (April, 2012 – March, 2013):**


5. **Interaction With Other Institutions/Organizations**

- Prof. Smita Sadhu is a Member of the Expert Committee for the review of existing programs under SAP, UGC and attended a review meeting at UGC, New Delhi on 24 September, 2012.

- Prof. Smita Sadhu was a member of the International Liaison Committee for the 15th International Conference on Information Fusion (Fusion 2012) held at Singapore during 9-12 July 2012.

- Prof. Smita Sadhu was a member of the Technical Program Committee for the 15th International Conference on Information Fusion (Fusion 2012) held at Singapore during 9-12 July 2012.

- Prof Smita Sadhu acted as External Examiner for evaluation of M.E. thesis at the Department of Electrical Engineering, BESU, Howrah in April, 2012.

- Prof Smita Sadhu is an External expert for the Ph.D. Committee of two candidates enrolled at the Department of Electrical Engineering, BESU, Howrah.

- Prof. T.K. Ghoshal has chaired meetings at DRDL/RCI/ASL Hyderabad.

- Prof. T.K. Ghoshal attended DRDO review meetings at Bangalore.

- Prof. T.K. Ghoshal is Member, Academic Committee of Jagadish Bose National Science Talent Search.

Prof. Smita Sadhu has attended a Project Review meeting at DRDL Hyderabad on 28 August, 2012.

6. Major Achievements:

Prof. Tapan Kumar Ghoshal (Hon. Emeritus Professor, EE Deptt.) has been awarded the prestigious DRDO Academy Excellence Award, 2012 for evolving processes for independent verification and validation of control laws for the Indian Light Combat Aircraft (LCA) and his contributions to the field of control and guidance of Indian missiles and combat aircrafts.


**ELECTRICAL MACHINES AND DRIVES SECTION**

1. B. Number of Faculty Members: 09 (Nine)

2. A. Area of Research Activities:
   - Design, Analysis & Modeling of Electric Motors & Drives
   - Ferro-resonance
   - Electromagnetic Fields
   - Power Electronics

B. Major Research Projects:

<table>
<thead>
<tr>
<th>Name of the Teacher as Coordinator/Principal Investigator</th>
<th>Title of the Project</th>
<th>Duration of the Project</th>
<th>Funding Agency</th>
<th>Sanction Date</th>
<th>Amount and Other Particulars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debashis Chatterjee</td>
<td>Reduction of Torque Ripple for Sensorless Control of BLDC Motors suitable for Electric Vehicular Application-3 years-UGC</td>
<td>3 years</td>
<td>UGC, Major Research Project Scheme</td>
<td>12.01.2010</td>
<td>Rs.10,79,300/</td>
</tr>
</tbody>
</table>

4. B. Articles Published/Accepted in Journals (April, 2012 - March, 2013):

International Journals, National Journals:


MEASUREMENTS AND INSTRUMENTATION SECTION

1. B. Number of Faculty Members: 07 (Seven)

2. A. Areas of Research Activities:
   - Sensors and Transducers
   - Process Instrumentation
   - Intelligent Instrumentation and Control
   - Signal Processing
   - Image Processing
   - Robotics and Artificial Intelligence
   - Embedded Systems
   - Condition Monitoring

2. B. Major Research Projects:
   Name of the Project :“Devices and Systems” subgroup under University with Potential for Excellence (UPE) – Phase II Programme, Jadavpur University, Kolkata, India
   Funding Agency / Sponsor: UGC, India
   Faculty Members involved: **Dr. Amitava Chatterjee** as Joint-Coordinator, "Devices and Systems" subgroup
   Project Status: On-going

   Name of the Project :“Devices and Systems” subgroup under University with Potential for Excellence (UPE) – Phase II Programme, Jadavpur University, Kolkata, India
   Funding Agency / Sponsor: UGC, India
   Faculty Members involved: **Dr. Debangshu Dey** as Member Investigator, “Devices and Systems” subgroup
   Project Status: On-going

   Name of the Project : Development of an Insulation Diagnostic System based on Arbitrary Waveform Dielectric Response Analysis
Funding Agency / Sponsor: DST, GOI
Faculty Members involved: Dr. D. Dey as Co-Investigator
Project Status: On-going

Name of the Project: Development of an Expert System integrated in novel PDC-RV Measurement Apparatus for Insulation Condition Monitoring of Transformer
Funding Agency / Sponsor: NTPC Ltd
Faculty Members involved: Dr. D. Dey as Co-Investigator
Project Status: Completed

Name of the Project: Condition Monitoring of Biomedical Systems
Funding Agency / Sponsor: Prof. A.K. Chatterjee Distinguished Research Grant, JU
Faculty Members involved: Dr. D. Dey as Principal Investigator
Project Status: On-going

3. A. Invited lectures delivered/Session Chaired:
   - Prof. Sugata Munshi delivered an invited lecture on “Programmable Logic Controllers” organized by IEEE Kolkata Section, Power & Energy Chapter, at Netaji Subhas Engg. College, Kolkata, in October 2012.
   - Dr. Debangshu Dey delivered an invited lecture on “Transducer Technology: from basics towards frugal research” organized by Institute of Engineering and Management under TEQIP Phase II Faculty Development Programme, Kolaghat, 02 Feb, 2013.

C. Seminar/Workshop/Conference/Symposium Organized:
   1. Dr. Debangshu Dey has organized a Lecture Meeting on “Distributed Camera Networks – The Integration of Computer Vision and Control Theory” on Dec. 2012 at Electrical Engineering Department Jadavpur University, Kolkata 700032.

4. A. Books/Monographs etc. Published:( Sl. No. Book Title Publisher Year of Publication)
   1. Amitava Chatterjee and Patrick Siarry (Eds.), Computational Intelligence in Image Processing ISBN: 978-3-642-30620-4 (Print) 978-3-642-30621-1 (Online) Springer-Verlag GmbH Heidelberg, Germany, Publishers 2013

B. Articles Published/Accepted in Journals (April, 2012 – March, 2013):

International Journals:


14. S. Sarkar, T. Sharma, A. Baral, B. Chatterjee, D. Dey, S. Chakravorti, "A new approach for determination of moisture in paper insulation of in-situ power transformers by combining
Polarization-Depolarization Current and Return Voltage Measurement results” Accepted in IEEE Transactions on Dielectrics and Electrical Insulation, Paper No. 3614, 2013.

**Book Chapters:**


**Conference Papers:**


**6. Major Achievements:**

- **Dr. Amitava Chatterjee** received Certificate of Appreciation from IEEE Vehicular Technology Society as Top Associate Editor “for outstanding contributions in 2012 to IEEE Transactions on Vehicular Technology”.

- **Dr. Amitava Chatterjee** was newly appointed as an Associate Editor of *IEEE Transactions on Instrumentation and Measurement* in January 2013.

- **Dr. Amitava Chatterjee** was newly appointed as an Associate Editor of *IEEE Sensors Journal* in February 2013.
• Dr. Amitava Chatterjee was newly appointed as an Associate Editor of Control Engineering Practice Journal, Elsevier Publishers, in September 2012.

• Dr. Amitava Chatterjee continues to serve as an Editor of IEEE Transactions on Vehicular Technology.


HIGH VOLTAGE ENGINEERING SECTION

1. B. Number of Faculty Members : 06 (Six)

2. A. Area of Research Activities:
   a) Condition monitoring of large electrical equipments
   b) Computer aided design and optimization of insulation systems
   c) Numerical field computations
   d) Signal conditioning in high voltage systems
   e) Partial discharge measurements and instrumentation
   f) Identification of transformer insulation failure

B. Major Research Projects:
   1. Name of the Project: Development of an Insulation Diagnostic System based on Arbitrary Waveform Dielectric Response Analysis
      Funding Agency: DST, GOI
      Principal Investigator : Prof. Sivaji Chakravorti

   2. Name of the Project: Development of an Expert System integrated in novel PDC-RV Measurement Apparatus for Insulation Condition Monitoring of Transformer
      Funding Agency: NTPC Ltd
      Principal Investigator : Prof. Sivaji Chakravorti

3. A. Invited Lectures Delivered/Session Chaired:
   1. Name of the Teacher: Prof. Sivaji Chakravorti
      Type of Participants: Academicians, Researchers and Graduate Students
      Name of the Seminar/Conference/Topic : Gas Insulated Transmission Lines
      Date and Venue : 30.04.2013VNR Vignana Jyothi Institute of Engineering & Technology, Hyderabad

   2. Name of the Teacher: Prof. Sivaji Chakravorti
      Type of Participants: Practicing Engineers, Academicians, Researchers and Graduate Students
      Name of the Seminar/Conference/Topic : Keynote address in the 1st National Conference on Power Electronics Systems and Applications (PESA 2013) on "A New Educational Perspective based on Power Quality Research"
Date and Venue: 16.03.2013 National Institute of Technology, Rourkela

3. Name of the Teacher: Prof. Sivaji Chakravorti
   Type of Participants: Session Chaired
   Date and Venue: 16.03.2013 National Institute of Technology, Rourkela

4. Name of the Teacher: Prof. Sivaji Chakravorti
   Type of Participants: Academicians, Researchers and Graduate Students
   Date and Venue: 29.12.2012 North-Eastern Regional Institute of Science & Technology, Arunachal Pradesh

5. Name of the Teacher: Prof. Sivaji Chakravorti
   Type of Participants: Session Chaired
   Name of the Seminar/Conference/Topic: 1st Int. Conf on Power & Energy (ICPEN 2012)
   Date and Venue: 28.12.2012 North-Eastern Regional Institute of Science & Technology, Arunachal Pradesh

6. Name of the Teacher: Prof. Sivaji Chakravorti
   Type of Participants: Academicians, Researchers and Graduate Students
   Name of the Seminar/Conference/Topic: Application of Artificial Neural Network in High Voltage Systems
   Date and Venue: 03.12.2012 Sutra Habour Resort Hotel, Kota Kinabalu, Sabah, Malaysia

7. Name of the Teacher: Prof. Sivaji Chakravorti
   Type of Participants: Academicians, Researchers and Graduate Students
   Name of the Seminar/Conference/Topic: Frequency Response Analysis for Transformer Condition Monitoring
   Date and Venue: 02.12.2012 Sutra Habour Resort Hotel, Kota Kinabalu, Sabah, Malaysia

8. Name of the Teacher: Prof. Sivaji Chakravorti
   Type of Participants: Practicing Engineers and Academicians
   Name of the Seminar/Conference/Topic: A New Perspective of Energy Education based on Power Quality Research
   Date and Venue: 29.11.2012 Hotel Peerless Inn, Kolkata

9. Name of the Teacher: Prof. Sivaji Chakravorti
   Type of Participants: Scientists and Researchers
   Name of the Seminar/Conference/Topic: Gas Insulated Lines – New Age Technology for Bulk Power Transmission
   Date and Venue: 24.11.2012 APC Roy Seminar Hall, CGCRI, Kolkata

10. Name of the Teacher: Prof. Sivaji Chakravorti
    Type of Participants: Academicians, Researchers and Graduate Students
    Name of the Seminar/Conference/Topic: Keynote address in the International Conference on Power and Energy Systems (ICPES’12) on “Condition monitoring of power transformers using dielectric response measurement”
    Date and Venue: 13.11.2012 Kalasalingam University, Madurai
11. Name of the Teacher: Prof. Sivaji Chakravorti  
Type of Participants: Academicians, Researchers and Graduate Students  
Name of the Seminar/ Conference/Topic: High Voltage Fields  
Date and Venue: 20.09.2012 North Eastern Regional Institute of Technology, Arunachal Pradesh

12. Name of the Teacher: Prof. Sivaji Chakravorti  
Type of Participants: Academicians, Researchers and Graduate Students  
Name of the Seminar/ Conference/Topic: Power System Over-voltages  
Date and Venue: 25.08.2012 Budge Budge Institute of Technology

13. Name of the Teacher: Prof. Sivaji Chakravorti  
Type of Participants: Academicians, Researchers and Graduate Students  
Name of the Seminar/ Conference/Topic: Gas Insulated Transmission Lines  
Date and Venue: 18.08.2012 Academy of Technology, Adisaptagram

14. Name of the Teacher: Prof. Sivaji Chakravorti  
Type of Participants: Practicing Engineers, Researchers and Academicians  
Date and Venue: 26.07.2012 Central Power Research Institute (CPRI) Bangalore

15. Name of the Teacher: Prof. Sivaji Chakravorti  
Type of Participants: Practicing Engineers, Researchers and Academicians  
Name of the Seminar/ Conference/Topic: Major Issues Relating to Maintenance of Electrical Power Equipment to Enhance Performance and Reduce Operational Cost  
Date and Venue: 19.06.2012 HR Dept, CESC Ltd

16. Name of the Teacher: Prof. Sivaji Chakravorti  
Type of Participants: Practicing Engineers and Academicians  
Name of the Seminar/ Conference/Topic: Over-voltages in Power System and Insulation Coordination  
Date and Venue: 31.05.2012 Asia Institute of Power Management

17. Name of the Teacher: Prof. Sivaji Chakravorti  
Type of Participants: Academicians, Researchers and Graduate students  
Name of the Seminar/ Conference/Topic: Condition Monitoring of Transformers  

18. Name of the Teacher: Prof. Sivaji Chakravorti  
Type of Participants: Practicing Engineers and Researchers  
Name of the Seminar/ Conference/Topic: Partial Discharge, Oil Analysis and Travelling waves for Condition Monitoring Practices  
Date and Venue: 04.04.2012 Asia Institute of Power Management

C. Seminar/Workshop/Conference/Symposium Organized:
• Prof. Sivaji Chakravorti has organized IEEE R10 Technical Conference on “Green Technology” at Kolkata in 2012.

4. A. Books/Monographs etc. Published:

• Prof. Sivaji Chakravorti, Dr. Debangshu Dey and Dr. Biswendu Chatterjee has authored the book on “Recent Trends in the Condition Monitoring of Transformers” (ISBN 978-1-4471-5549-2) to be published by Springer

B. Articles Published/Accepted in Journals (April, 2012 – March, 2013):

International Journals, National Journals:


Conference Paper:

5. Collaborative Programmes:
1. Student exchange with university of Applied Sciences, Augsburg, Germany.

6. Major Achievements:
- Prof. Sivaji Chakravorti is serving as the Member of Subject Expert Committee on Engineering Sciences for Fund for Infrastructure in Science & Technology (FIST) program of Department of Science & Technology (DST), Govt. of India
- Prof. Sivaji Chakravorti is the Fellow of The Indian National Academy of Engineering (INAE).
- Prof. Sivaji Chakravorti is the Fellow of The National Academy of Sciences, India (NASI).
- Prof. Sivaji Chakravorti is the Fellow of The West Bengal Academy of Science & Technology (WAST).
- Prof. Sivaji Chakravorti, Dr. Biswendu Chatterjee and Dr. Debangshu Dey has filed the patent on “An instrument for Insulation Condition Assessment” Application No.998/KOL/2012 dated 30.08.2012.
- Dr. Biswendu Chatterjee is serving as Treasurer of Dielectrics and Electrical Insulation Society Chapter of IEEE Kolkata Section since 2012.
• Sri P Rajamani is serving as the Secretary of Power & Energy Chapter of IEEE Kolkata Section since 2012 onwards.

ELECTRICAL POWER SYSTEM SECTION

1. B. Number of Faculty Members: 4 (Four)
4. B. Articles Published/Accepted in Journals (April, 2012 – March, 2013):
International Journals:

International Conferences:

ILLUMINATION ENGINEERING

COURSES OFFERED:
• 4 – Semester (Day) **M.E Illumination Engineering** has been started from 2004 – 2005. Total intake 18 students per semester. Course fee @ Rs.12,000/- per student and Rs.18,000/- per sponsored student per semester.

**Thrust Area of Research**
- Road lighting design in Indian context
- Ballast- Igniter -Lamp characteristics
- Lamp-life estimation
- Energy efficient low-cost lighting control system,
- Human powered Battery charger
- Rural lighting system design & development
- Daylight integrated energy efficient artificial lighting
- Energy efficient “Road Lighting”, “Museum Lighting” &”Flood Lighting”

**ARTICLES PUBLISHED IN JOURNALS**


1. **A. Courses Offered:**
   - **B.E. Tel.E.**: 4 years (66 x 4 + 12 x 3 (for lateral entry) = 300)
   - **M.E. Tel.E.**: 2 years (30 (including 5 Q.I.P) x 2 = 60)
   - **Evening M.Tech.**: 1. VLSI and Microelectronics, 3 years (18 x 3 = 54)
     2. Intelligent Automation and Robotics. 3 years (18 x 3 = 54)

2. **B. Number of Faculty Members**: 18

3. **A. Area(s) of Research Activities:**
   1. Adaptive antennas
   2. Ad hoc wireless networks
   3. Analog and Digital Signal Processing
   4. Antennas and Microwaves
   5. Artificial Intelligence
   6. Bio-informatics and Computational Biology
   7. Biomedical Image Processing
   8. Broadband Wireless Communications
   9. Brain Computer Interface
   10. Call admission control in cellular and WiMAX Networks
   11. CMOS MEMS integration and signal conditioning of gas sensor
   12. Coding Theory
   13. Cognitive Radios
   14. Computer Networking
   15. Computer Vision.
   16. Control Engineering
   17. Cybernetics
   18. Data Security and Data Hiding
   19. Digital Communication
   20. Digital Signal Processing
   21. Development of embedded systems for medical diagnostic applications
   22. Electronic Devices
   23. Embedded Systems
   24. EMI/EMC
   25. Fiber Optic Communication
   26. High Frequency VLSI design
   27. Microwave Passive Device
   28. Mobility management for 3G/WLAN Integrated Architecture
   29. Mobile and Wireless Communication
30. Mobility Management for Integrated Architecture
31. Multi-agent Robotics
32. Optimization techniques
33. Optical Sensor Network
34. Packet Scheduling in WiMAX, VoIP over WiFi and WiMAX
35. Pattern Recognition
36. Photonics
37. Porous Silicon formation by Alumina template
38. RFID and its Applications
39. RF MEMS
40. Robotics
41. Semiconductor device
42. Signal and Image Processing
43. Simulations of nanodevice models
44. Single electron & spintronics devices and their applications in VLSI circuits
45. Soft Computing
46. Swarm and Evolutionary Algorithms
47. VLSI Circuit Design
48. WiMAX handoff and Call Admission
49. VLSI Circuit Design
50. Wearable Antennas
51. Dielectric Resonator Antennas
52. Reconfigurable Smart Antennas
53. Biological and Agricultural Effects of Radiation
54. MEMS based metal oxide gas sensors
55. Design and Simulation of RF MEMS based capacitive switch
56. CMOS MEMS integration and signal conditioning of gas sensor
57. Embedded systems
58. MEMS based Pressure Sensors
59. Power Optimisation of VLSI Circuits
60. Study of Nanocrystalline Silicon, Zinc Oxide and its application on Solar Cells and Gas Sensors
61. Porous Silicon Low Pressure Sensors
62. Porous silicon formation by Alumina template

2B. **Major Research Project(s) as PI or Co-PI Completed or Ongoing During 2012-2013:**

**Name of the Faculty:** Prof. Amit Konar
**Title of the Project:** Perception Engineering (A national project jointly undertaken by IIT Delhi, IIT Bombay, IIIT Hyderabad and Jadavpur University)
This project is aimed at developing shape perception from tactile images.
**Funding Agency:** Department of Information Technology (DIT)
**Amount (Rs.):** 3.3 Crores
Name of the Faculty: **Prof. Amit Konar**
Title of the Project: UGC-UPE-II Excellence Program in Cognitive Science
Funding Agency: UGC
Amount (Rs.): 1.87 crores
Duration: X
Status (Project completed on………/ ongoing): Ongoing

Name of the Faculty: **Prof. B. Gupta**
Title of the Project: Study and Optimization of Microstrip Antenna System to Receive Satellite Link from Moving Trains
Funding Agency: ISRO
Amount (Rs.): 10.93 lakhs
Duration: 3 Years
Status (Project completed on………/ ongoing): Ongoing

Name of the Faculty: **Prof. B. Gupta**
Title of the Project: Development of RF MEMS Capacitive Shunt Switch in Application as Phase Shifters for Satellite Communication Systems (in collaboration with IIT KGP)
Funding Agency: ISRO
Amount (Rs.): 4.7975 lakhs
Duration: 2 Years
Status (Project completed on………/ ongoing): Completed

Name of the Faculty: **Prof. B. Gupta (PI) Dr. Sudhabindu Ray (Co-Principal Investigator)**
Title of the Project: Establishment of New National MEMS Design Centers
Funding Agency: National Program on Micro and Smart Sensors (Aeronautical Development Agency)
Amount (Rs.): 11.16 lakhs
Duration: 4 Years
Status (Project completed on………/ ongoing): Ongoing

Name of the Faculty: **Prof. B. Gupta**
Title of the Project: Design and Fabrication of Two Movable Plate Miniaturized RF MEMS Switched Capacitor and Phase Shifter
Funding Agency: National Program on Micro and Smart Sensors (Aeronautical Development Agency)
Amount (Rs.): 33.88 lakhs
Duration: 2 Years
Status (Project completed on………/ ongoing): Completed

Name of the Faculty: **Prof. B. Gupta (PI) Dr. Sudhabindu Ray (Co-Investigator)**
Title of the Project: Design and Development of High Speed Miniaturized RF MEMS Switched Capacitor (in collaboration with IIT KGP)
Funding Agency: ISRO
Amount (Rs.): 19.70 lakhs
Duration: 3 Years
Status (Project completed on........./ ongoing): Completed

Name of the Faculty: **Prof. B. Gupta**
Title of the Project: Development of Nanocrystalline MEMS Pressure Sensor for Vacuum AND Low Pressure Application
Funding Agency: Department of Information Technology, Govt. of India
Amount (Rs.):(Rs.): 60.32 lakhs
Duration: 5 Years
Status (Project completed on........./ ongoing): Ongoing

Name of the Faculty: **Prof. B. Gupta**
Title of the Project: Fabrication of High Speed RF MEMS Based Miniaturized Switched Capacitor Based Phase Shifting Unit Cell
Funding Agency: INUP
Amount (Rs.):(Rs.): 2.0 Lakhs
Duration: 6 Months
Status (Project completed on........./ ongoing): Completed

Name of the Faculty: **Prof. B. Gupta (PI) Dr. Sudhabindu Ray (Co-Principal Investigator)**
Title of the Project: Development of Wearable Antenna for Body Centric Application and Studies on their Physiological Effects (Collaborative Research Project with Govt of Tunisia)
Funding Agency: DST, Govt. of India.
Amount (Rs.):(Rs.): 14.49 Lakhs
Duration: 3 Years
Status (Project completed on........./ ongoing): Ongoing

Name of the Faculty: **Prof. B. Gupta (PI) Dr. Sudhabindu Ray (Co-Principal Investigator)**
Title of the Project: Radio Communication System Design, Fabrication and Measurement Technique
Funding Agency: UGC under Special Assistance Programme (SAP)
Amount (Rs.):(Rs.): 59.0 Lakhs
Duration: 5 Years
Status (Project completed on........./ ongoing): Ongoing

Name of the Faculty: **Prof. B. Gupta**
Title of the Project: Development of Antennas for Wearable Application and Ubiquitous Computing
Funding Agency: UGC under UPE Phase II Program
Amount (Rs.):(Rs.): 5.31 Lakhs
Duration: 2 Years
Status (Project completed on........./ ongoing): Ongoing

Name of the Faculty: **Prof. B. Gupta**
Title of the Project: Fabrication of RF MEMS Metamaterial Based CSRR Tunable Filter
Funding Agency: Indian Nano Users Program (INUP)
Amount (Rs.):(Rs.): 2 Lakhs
Duration: 6 Months
Status (Project completed on........./ ongoing): Ongoing
Name of the Faculty: **Mr. Sayan Chatterjee**
Title of the Project: Special manpower Development Programme in VLSI design (SMDP II)
Funding Agency: Ministry of Communications and Information Technology
Amount (Rs.): 59 Lakhs
Duration: 5 years + 1
Status (Project completed on........./ ongoing): Completed

Name of the Faculty: **Dr. Sudhabindu Ray (Co-Principal Investigator)**
Title of the Project: Design and Development of High-Speed Miniaturized RF MEMS Switched Capacitor Based Unit Cell PhaseShifter
Funding Agency: Indian Nano-electronics Users Program (INUP) under IIT Bombay
Amount (Rs.): 
Duration: 
Status (Project completed on........./ ongoing): Completed

Name of the Faculty: **Prof. Subir Kumar Sarkar**
Title of the Project: Development of highly secured and authenticated algorithm and its low power ASIC-VLSI implementation suitable for defense application
Funding Agency: DRDO
Amount (Rs.): 14.98Lakhs
Duration: 
Status (Project completed on........./ ongoing): Completed

Name of the Faculty: **Prof. Subir Kumar Sarkar**
Title of the Project: Design and simulation of logic circuits with hybrid architectures of Single Electron Transistors and conventional MOS devices
Funding Agency: CSIR
Amount (Rs.): 7.25Lakhs
Duration: 
Status (Project completed on........./ ongoing): Ongoing

Name of the Faculty: **Prof. Subir Kumar Sarkar**
Title of the Project: Modelling and simulation of Nano scale SON MOSFET suitable for ultra-dense and low power VLSI circuit.
Funding Agency: DRDO
Amount (Rs.): 14.88Lakhs
Duration: 
Status (Project completed on........./ ongoing): Ongoing

Name of the Faculty: **Prof. Subir Kumar Sarkar**
Title of the Project: Low Power ASIC-VLSI Implementation of Secure And Authentication Algorithms for Defence Application.
Funding Agency: UGC UPEPhase-II
Amount (Rs.): 7.82Lakhs
Duration: 
Status (Project completed on........./ ongoing): Ongoing

Name of the Faculty: **Prof. Subir Kumar Sarkar**
Title of the Project: **RFID in Avian influenza hazards- A Case study for design and implementation of a processor for early bird flu detection and cost effective poultry management.**

**Funding Agency:** CSIR

Amount (Rs.): **8.64 Lakhs**

**Duration:**

Status (Project completed on........../ ongoing): Ongoing

Name of the Faculty: **Prof. Subir Kumar Sarkar**

Title of the Project: **Nano Single Electron and Spintronic devices as ASIC VLSI chips for medical and space applications.**

**Funding Agency:** UGC UPEPhase-II

Amount (Rs.): **7.32 Lakhs**

**Duration:**

Status (Project completed on........../ ongoing): Ongoing

Name of the Faculty: **Prof. S.K. Sanyal**

Title of the Project: **Call Admission Control for the Optimization of Resource Utilization for Mobile WiMAX and Integrated WiMAX/WiFi networks**

**Funding Agency:** "Mobile and Innovative Applications Programme" UGC funded "University with Potential for Excellence - Phase II"

Amount (Rs.): **6.0 Lakhs**

**Duration:** 2 Years

Status (Project completed on........../ ongoing): Ongoing

Name of the Faculty: **Prof. Iti Saha Misra**

Title of the Project: **Designing a SDR based Cognitive Radio Networking test-bed involving multiple WARP boards**

**Funding Agency:** Mobile Computing project, UPE II, UGC

Amount (Rs.): **8.0 Lakhs**

**Duration:** 2 Years

Status (Project completed on........../ ongoing): Ongoing

Name of the Faculty: **Prof. C.K. Sarkar**

Title of the Project: **Development of Graphene Based Hydrogen Sensor**

**Funding Agency:** Council of Scientific and Industrial Research, Govt. of India

Amount (Rs.): **14.28L**

**Duration:**

Status (Project completed on........../ ongoing): Ongoing

Name of the Faculty: **Prof. C.K. Sarkar**

Title of the Project: **RF Performance Trends of Nano-Scale MOS Devices**

**Funding Agency:** AICTE

Amount (Rs.): **8.0L**
Name of the Faculty: Prof. C.K. Sarkar  
Title of the Project: UGC Potential of Excellent -II  
Funding Agency: University Grants Commission (UGC), Govt. of India.  
Amount (Rs.): 10.0L  
Duration:  
Status (Project completed on........./ ongoing):Ongoing

Name of the Faculty: Prof. C.K. Sarkar  
Title of the Project: Special Manpower Development Project –II (SMDP-II)  
Funding Agency: MIT  
Amount (Rs.): 59.0L  
Duration:  
Status (Project completed on........./ ongoing):Completed

Name of the Faculty: Prof. C.K. Sarkar  
Title of the Project: Study of Advanced – Gate MOSFETs for Analog and RF Applications in Nano Regime  
Funding Agency: DST  
Amount (Rs.): 28.38L  
Duration:  
Status (Project completed on........./ ongoing):Completed

Name of the Faculty: Prof. C.K. Sarkar  
Title of the Project: Modeling of Quantum Effect Semiconductor Devices for Electronic Applications  
Funding Agency: UGC  
Amount (Rs.): 6.18L  
Duration:  
Status (Project completed on........./ ongoing):Completed

Name of the Faculty: Prof. C.K. Sarkar  
Title of the Project: Nano Scale MOSFET’s Scalability Issue and Potential of Dielectrics  
Funding Agency:DST (JSPA)  
Amount (Rs.): 3.50L  
Duration:  
Status (Project completed on........./ ongoing):Completed

Name of the Faculty: Prof. C.K. Sarkar  
Title of the Project: Study and Modeling of Sub-Micron bulk and thin film SOI CMOS Devices with and without Halo Implantation  
Funding Agency: DST  
Amount (Rs.): 13.5L  
Duration:  
Status (Project completed on........./ ongoing):Completed
Name of the Faculty: **Prof. C.K. Sarkar**
Title of the Project: Scaling of MOSFETs in the Nano Regime
Funding Agency: AICTE
Amount (Rs.): 8.5L(Approx)
Duration:
Status (Project completed on......../ ongoing): Completed

Name of the Faculty: **Prof. C.K. Sarkar**
Title of the Project: UPE (University with Potential for Excellence) - Phase II Scheme
Funding Agency: University Grants Commission (UGC)
Amount (Rs.):
Duration:
Status (Project completed on......../ ongoing):

Name of the Faculty: **Prof. C.K. Sarkar**
Title of the Project: Development of Graphene Based Hydrogen Sensor Council of Scientific-and Industrial Research, Govt. of India.
Funding Agency: Govt. of India.
Amount (Rs.):
Duration:
Status (Project completed on......../ ongoing):

Name of the Faculty: **Prof. C.K. Sarkar**
Title of the Project: Special Manpower Development Programme for VLSI Design and Related Software (SMDP-II)
Funding Agency: Ministry of Communications and Information Technology, Govt. of India
Amount (Rs.):
Duration:
Status (Project completed on......../ ongoing):

Name of the Faculty: **Dr. P. Venkateswaran**
Title of the Project: Spectrum Sensing Technique Implementation for Improved QoS in Cognitive Radio
Funding Agency: AICTE – Research Promotion Scheme (RPS)
Amount (Rs.): 14.7 Lakhs
Duration:
Status (Project completed on......../ ongoing):

3. **Invited Lectures Delivered/ Tutorial/Session Chaired in 2012-2013:**
   1. **Prof. Amit Konar** chaired one session on Type-2 Fuzzy Sets in Fuzz-IEEE, 2013 Conference, held in Hyderabad, India in July, 7 2013.
   3. **Prof. Bhaskar Gupta** delivered an invited lecture at a National Wokshop on Recent Trends in Electronics and Communication at Mizoram University, Aizawl, Mizoram, India.
   4. **Prof. Bhaskar Gupta** delivered an invited lecture at Indian Antenna Week, IEEE, in May 2012 at Sikkim, India.
5. **Prof. Bhaskar Gupta** delivered an invited lecture at Indian Antenna Week, IEEE, in 2013 at Aurangabad, India.

6. **Prof. Bhaskar Gupta** delivered an invited lecture at Asansol Engineering College, Organised by IEEE AP-MTT Kolkata Chapter Section.

7. **Prof. Bhaskar Gupta** delivered an invited lecture in National Conference on Advancement of Science and Technology and Sustainable Development Following the ideals of Swami Vivekananda at Indian Association for Cultivation of Science, Kolkata, India.

8. **Prof. Bhaskar Gupta** delivered an invited talk in URSI 2013, Hiroshima, Japan

9. **Prof. Bhaskar Gupta** delivered an invited talk on "Electromagnetic Field (EMF) and Cellular Telephony" at Bengal Chamber of Commerce in July 2013.

10. **Prof. Bhaskar Gupta** delivered an invited talk at MMS 2013, Beirut, Lebanon.

11. **Prof. Bhaskar Gupta** delivered an invited talk at Frontiers of Research in Speech and Music 2013, Kolkata, India.

12. **Prof. Bhaskar Gupta** chaired a session at International Conference on Communication, Devices and Intelligent Systems: CODIS, 2012 at Jadavpur University, Kolkata, India.

13. **Prof. Bhaskar Gupta** chaired a session at URSI 2013, Hiroshima, Japan.

14. **Prof. Bhaskar Gupta** chaired a session at National Conference on Advancement of Science and Technology and Sustainable Development Following the ideals of Swami Vivekananda at Indian Association for Cultivation of Science, Kolkata, India.

15. **Prof. Bhaskar Gupta** chaired a session at Indian Antenna Week 2013, Aurangabad, Maharashtra, India.

16. **Prof. Bhaskar Gupta** chaired a session at “Introduction to MEMS Technology”, 2013, Jadavpur University, Jadavpur, Kolkata.

17. **Prof. Bhaskar Gupta** chaired a session at MMS 2013, Beirut, Lebanon.


19. **Prof. C.K. Sarkar** delivered a lecture at National Conference on Recent Developments in Electronics (NCRDE 2013) organized by IEEE EDS Delhi Chapter, Department of Electronic Science, University of Delhi South Campus, New Delhi during Jan 18-20, 2013.

20. **Prof. Iti Saha Misra** delivered an invited lecture on “Cognitive Radio Networks and some related research Challenges”, International Conference on Communication, Circuits and Systems (iC3S-2012) October 5, 2012, School of Electronics Engineering, KIIT University, Bhubaneswar, Odisha, India.


22. **Prof. Iti Saha Misra** delivered a Tutorial Talk at the Winter School organized by School of Mobile Computing, Jadavpur University, Salt Lake Campus, on "Cognitive Radio Networks and Communications", 14 Jan 2013.

24. **Prof. Iti Saha Misra** chaired the session in the International Conference on Communication, Circuits and Systems (iC3S-2012) October 5-7, 2012, School of Electronics Engineering, KIIT University Bhubaneswar, Odisha, India.


29. **Prof. Subir Kumar Sarkar** Chaired the technical sessions on Emerging Topics on Communication Systems (IEEE ETCOMS 2013), held at Jadavpur University on 2nd February, 2013.

30. **Prof. Subir Kumar Sarkar** Chaired the technical session on Emerging Technology and System Design (ETS-4) in International Symposium on Electronic System Design (ISED 2012), held at Bengal Engineering & Science University, Shibpur on December 21, 2012.

31. **Prof. Subir Kumar Sarkar** Chaired the technical session on “Smart Buildings & Manufacturing” at the 47th Annual National Convention of the Computer Society of India at Science City, Kolkata, during December 1-2, 2012.

32. **Prof. Subir Kumar Sarkar** Chaired the technical sessions at First Michael Faraday IET Summit 2012 organized by YPS IET Kolkata, on November-25th, 2012.

33. **Prof. Subir Kumar Sarkar** Chaired the technical session on “Devices and Circuits” at the three-day International Conference on Communication, Circuits and Systems at KIIT University, Bhubaneswar, during October 5-7, 2012.

34. **Prof. Subir Kumar Sarkar** Chaired the technical sessions at International conference on computing and control Engineering (IC3E 2012), during April 12-13, 2012 organized by Dr.MGR University, Adyalampattu campus-Chennai.


36. **Prof. Subir Kumar Sarkar** Delivered a Invited speech on “Design Issues for Low Power VLSI Design”, Three-day International Conference on Communication, Circuits and Systems at KIIT University, Bhubaneswar, October 5-7, 2012.

37. **Prof. Subir Kumar Sarkar** Delivered a lecture sessions during summer school on Frontiers of nanomaterials, structures and devices (nanoMASTD 12) held at Department of Radio Physics and Electronics, University of Calcutta on July 4, 2012.

38. **Prof. Subir Kumar Sarkar** Delivered a lecture session on “Research Methodology”, in faculty development program under TEQIP at Birbhum Institute of Engineering and Technology, Siuri on May 11, 2012.

39. **Prof. Subir Kumar Sarkar** Delivered a lecture session on “Digital system design” and “Challenges in low power VLSI design”, in faculty development program under TEQIP at Birbhum Institute of Engineering and Technology, Siuri on May 11, 2012.
40. **Prof. Subir Kumar Sarkar** Delivered a keynote address on "**Sensors and Sensor Networks under diversified Scenarios**" at International conference on computing and control engineering (ICCCE 2012), during April 12-13, 2012 organized by Dr.MGR University, Adayalampattu campus-Chennai.

41. **Prof. Subir Kumar Sarkar** Delivered a Invited speech on "**Design Challenges in low power VLSI circuits**", one-day Interactive Session for the enhancement of students’ skill in electronics (under UGC Merged Scheme 2011-2012) on April, 2012 organized by the Department of Electronics, Vidyasagar University, Midnapore- 721 102, West Bengal.

42. **Dr. A. S. Chowdhury** delivered an invited lecture on "**Contour Tracking using Level Sets, Temporal Information and Shortest Paths**", *International Conference on Frontiers of Mathematical Sciences with Applications (ICFMSA-2012)* organized by *Calcutta Mathematical Society* at Calcutta, India, December 2012.

43. **Dr. A. S. Chowdhury** delivered an invited lecture on "**Challenges in Video Summarization**" 2nd *National Conference on Advanced Communication Systems and Design Techniques (NCACD)* organized by Haldia Institute of Technology at Haldia, India, September 2012.

44. **Dr. A. S. Chowdhury** delivered an invited lecture on "**Segmentation and Tracking in Biomedical Imaging**", UGC sponsored refresher course on "**Recent Trends in Biomedical Engineering**", organized by School of Bio-science and Engineering, Jadavpur University at Calcutta, India, June, 2012.

45. **Dr. A. S. Chowdhury** chaired a session in the *International Conference on Frontiers of Mathematical Sciences with Applications (ICFMSA-2012)* organized by *Calcutta Mathematical Society* at Calcutta, India, December 2012.

46. **Dr. A. S. Chowdhury** chaired a session in the 2nd *National Conference on Advanced Communication Systems and Design Techniques (NCACD)* organized by *Haldia Institute of Technology* at Haldia, India, September 2012.

47. **Dr. Sudhabindu Ray** chaired a technical session in International Conference On Engineering Education In The New Century (E2NC-2012) at Sir J.C. Bose School Of Engineering, Hooghly, West Bengal on 4th Feb., 2012.

48. **Dr. Sudhabindu Ray** acted as a member of the board of juries in the technical session of Academic Meet organized by Forum of Scientists, Engineers and Technologists, on 31.03.2012 at CIE&M, Tollygunge, Kolkata.

49. **Dr. Sudhabindu Ray** chaired a technical session in International Symposium on Electronic System Design (ISED) 19-22 December 2012., held at Bengal Engineering and Science University.

50. **Dr. Sudhabindu Ray** chaired a technical session Workshop TECHNOPHIL 2013, ("Workshop on CMOS & Beyond CMOS Circuits & System Design") held at SMDP Lab, IC Design & Fabrication Center, Jadavpur University on 18th - 21st March 2013.

51. **Dr. Sudhabindu Ray** delivered an invited lecture on "**Electromagnetic Radiation and its Environmental Consequences**", organized by Ward Committee of Paschim Banga Vigyan Mancha (PBVM) at 125 No. Ward, Kolkata on 8th April, 2012.

52. **Dr. Sudhabindu Ray** delivered an invited lecture on "**Hidden hazards in the ocean of microwaves**", organized by Behala Paschim Zonal Committee, Paschim Banga Vigyan Mancha (PBVM) at Paschim Behala, Kolkata on 22th April, 2012.

53. **Dr. Sudhabindu Ray** delivered an invited lecture on "**Hidden hazards in the ocean of microwaves**" organized jointly by 2-No. Ward committee and BL Block, at BL Block, Salt Lake, Kolkata on 13th May, 2012.

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

1. **Prof. C.K. Sarkar** attended IEEE EDS Mini Colloquium (WIMNACT 33) at NIT Manipur, Imphal.
2. **Prof. Iti Saha Misra** attended IEEE R10 meeting, March 3-4 2012, Swissotel, Kolkata.
3. **Prof. Iti Saha Misra** attended IEEE Milestone program or Sir C.V. Raman held at IACSc on 15 Sep 2012.
4. **Prof. Subir Kumar Sarkar** attended the summer school on Frontiers of nanomaterials, structures and devices (nanoMASTD 12) held at Department of Radio Physics and Electronics, University of Calcutta on July 4, 2012.
5. **Prof. Subir Kumar Sarkar** attended the lecture session on "Digital system design" and "Challenges in low power VLSI design", in faculty development program under TEQIP at Birbhum Institute of Engineering and Technology, Siuri during May 11-12, 2012.
6. **Dr. A. S. Chowdhury** presented a paper at the 18th IEEE International Conference on Image Processing (ICIP), Brussels, Belgium, September 2011.
7. **Dr. Sudhabindu Ray** attended RF MEMS workshop at 6th International Conference of Institute of Smart Structures and Systems (ISSS), IISc Bangalore, 4th Jan., 2012.
8. **Dr. Sudhabindu Ray**, attended International Conference on Communications, Devices and Intelligent Systems (CODIS 2012) held at Jadavpur University on 28-29th December, 2012.
9. **Dr. Sudhabindu Ray**, attended three day seminar/short course on “Introduction to MEMS Technology” on July 03-05 July, 2013 at Jadavpur University
10. **Dr. Sudhabindu Ray** attended Workshop TECHNOPHIL 2013, ("Workshop on CMOS & Beyond CMOS Circuits & System Design") held at SMDP Lab, IC Design & Fabrication Center, Jadavpur University on 18th - 21st March 2013.
12. **Mr. Sayan Chatterjee** attended “workshop on microwave circuits” organized by IEEE AP/MTT joint chapter, Kolkata section from 8-9th September, 2012 at NSHM Knowledge Campus, Durgapur.
13. **Mr. Sayan Chatterjee** attended UGC-ASC refresher course on “Free software technologies” from 25th November to 15th December at Dept. of Computer Science and Engineering, Jadavpur University.
14. **Mrs. Sheli Shena Chaudhuri** attended third International Conference on Computer Science, Engineering & Applications-2013, AIRCC May 24 ~26, 2013, Delhi, India.

3. **C. Seminar/Workshop/Symposium Organized:**
1. **Prof. Bhaskar Gupta** Organized International Conference on Communication, Devices and Intelligent Systems: CODIS, 2012 at Jadavpur University, Kolkata, India.

2. **Prof. Bhaskar Gupta** Organized a three day workshop on "Introduction to MEMS Technology", 2013, at Jadavpur University, Kolkata.


4. **Prof. C.K. Sarkar** Organized a summer training course on VLSI Design & Microelectronics Technology from June 2011 to July 2011 (Total B.Tech. Students 100).

5. **Prof. C.K. Sarkar** Organized a workshop on "CMOS & beyond CMOS circuits and system design" (SMDP-II) (18th – 21st March 2013) in association with IEEE EDS chapter Kolkata section and synopsis (India) EDA software Pvt. Ltd.

6. **Prof. Subir Kumar Sarkar** Organized International Conference on Communications, Devices and Intelligent Systems, CODIS 2012 during 28-29th December 2012 in Jadavpur University as conference chair.

7. Prof. Subir Kumar Sarkar was a National Advisory Committee member of 5th International Conference on Computers and Devices for Communication CODEC-2012, Institute of Radio Physics and Electronics, Calcutta University.

8. Prof. Subir Kumar Sarkar is a National Technical Advisory Committee member of National Conference on Recent development in Electrical, Electronics & Engineering Physics, RDE3P-2013 during 26th -27th October, 2013, at MCKV Institute of Engineering, Howrah.


10. Dr. A. S. Chowdhury acted as the Publication Chair for International Conference on Communications, Devices and Intelligent Systems (CODIS) organized by Jadavpur University, India, December, 2012.

11. Prof. Iti Saha Misra served as a member of Technical Committee for International Conference on Communication, Circuits and Systems (iCC’5-2012) October 5-7, 2012, School of Electronics Engineering, KIIT University Bhubaneswar, Odisha, India.

12. Prof. Iti Saha Misra served as a member of International Conference on Communications, Devices and Intelligent Systems (CODIS), 2012, 28-29 Dec. 2012, Kolkata, India

13. Prof. R. Nandi and Dr. P. Venkateswaran have jointly organized an One-day Educational Program “Emerging Topics on Communication Systems – (IEEE ETCOMS 2013)” under the aegis of IEEE Communications Society Kolkata Chapter in collaboration with the Dept. of Electronics & Tele-Comm. Engg., Jadavpur University, on Feb. 02, 2013 at Dr. K. P. Basu Memorial Hall, JU

14. Dr. P. Venkateswaran has organized a Technical Lecture Program “Microwave and Its Applications” on May 12, 2012 at B.I.T.M, Santiniketan in Collaboration with the Department of Electronics & Communication Engg. (ECE), Bengal Institute of Technology and Management (BITM), Santiniketan – 731 236.
15. Dr. Sudhabindu Ray, worked as a member of the organizing committee of International
Conference on Communications, Devices and Intelligent Systems (CODIS 2012) held at Jadavpur
University on 28-29th December, 2012.

16. Dr. Sudhabindu Ray, organized three day seminar/short course on “Introduction to MEMS
Technology” on July 03-05 July, 2013 at Jadavpur University

17. Dr. Sudhabindu Ray organized “Workshop – Technophil -2013, a workshop on CMOS and beyond
CMOS circuits and system design” from 18th to 21st March, Dept. of Electronics &
Telecommunication Engineering, Jadavpur University.

18. Dr. Sudhabindu Ray was a committee member of National Conference On Engineering Education
In The New Century (E2NC-2012), at Sir J.C. Bose School Of Engineering, Hooghly, West Bengal,
15th-16th Feb., 2013.

19. Mr. Sayan Chatterjee Organized "National Student Paper and Circuit Design Contest-2012" on
October 04, 2012 at Dept. of Electronics & Telecommunication Engineering, Jadavpur University.

20. Mr. Sayan Chatterjee Organized as Hospitality and Logistic Co-chair in 2012 International
Conference on Communications, Device and Intelligent Systems (CODIS) at Jadavpur University,
28-29th December, 2012.

21. Mr. Sayan Chatterjee Organized jointly with IEEE EDS Chapter Calcutta section and Synopsys,
EDA software private ltd. "Workshop – Technophil -2013, a workshop on CMOS and beyond
CMOS circuits and system design" from 18th to 21st March, 2013 in SMDP LAB, Dept. of
Electronics & Telecommunication Engineering, Jadavpur University.

22. Dr. Sudipta Chattopadhyay acted as Organizing Co-Chair for the International Conference on
Communication, Devices & Intelligent Systems (CODIS-2012), December 28-29, 2012, organized
by the Dept. of Electronics & Telecommunication Engg., Jadavpur University, Kolkata, India.


24. Mrs. Sheli Shena Chaudhuri acted as member of Technical Committee for SPIN2014, Amity,
Noida.

4. A. Books/ Monographs Published:

1. Amit Konar, and Aruna Chakraborty, Emotion Recognition–A Pattern Analysis Approach, Wiley-

2. Amit Konar, and Sumantra Chakraborty, Abduction: Reasoning with Type-1 and Type-2 Fuzzy


Interface for Rehabilitative Applications, Bio-systems and Bio-robotics Series, Springer,

5. Amit Konar and Ghosh, S, Call Admission Control in a Mobile Cellular Network: A Computational

6. Prof. Bhaskar Gupta : Analysis of Electromagnetic Bandgap Structures Formed by Multiple
Vertical Posts in Rectangular Waveguides" (Chapter 1) along with Kiyotoshi Yasumoto, Manidipa
Bhattacharya in the book Advanced Techniques for Microwave Systems edited by Giuseppe
Schettini.

7. Prof. C.K. Sarkar: “Technology Computer Aided Design: Simulation for VLSI MOSFET” Edited by
Prof. CK. Sarkar, accepted for publication by CRC Press, Taylor & Francis Group, LLC, 6000 Broken
Sound Parkway NW, Suite 300, Boca Raton, Florida 33487, U.S.A


Peer Reviewed/Book Chapters:


4. B. Articles Published in Journal in the Year 2012-2013:

Publication List of Prof. Amit Konar


**Publication List of Prof. Bhaskar Gupta**


7. Sriparna Bhattacharya (Mitra) and Bhaskar Gupta, "A Novel Multifrequency Hybrid Antenna", Microwave and Optical Technology Letters, 11th May, 2013(Accepted).


Publication List of Prof.C.K.Sarkar


32. Sengupta, Amretashis; Shah, Pushupati; Sarkar, Chandan Kumar; Requejo, Felix G., "Computational Study on Semiconductor and Metallic Nanocrystal Embedded Gate Oxide MOS


Publication List of Prof. Iti Saha Misra and Prof. Salil Kumar Sanyal


Publication List of Prof. Subir Kumar Sarkar


3. Abhinandan Khan and Subir Kumar Sarkar, “A Novel Very Large Scale Integration Routing Based on Particle Swarm Optimization”, communicated to IEEE Transactions on Evolutionary Computation.


29. Rajanna K.M. and Subir Kumar Sarkar, "Development of RFID based automatic loading system for transport vehicles”, communicated to acta press..


Publication List of Dr. A. S. Chowdhury

Publication List of Dr. (Mrs.) Chayanika Bose

Publication List of Dr. Manotosh Biswas


Publication List of Prof. R.N.Nandi and Dr. P. Venkateswaran

Publication List of Dr. P. Venkateswaran

Publication List of Dr. Sheli Sinha Chaudhuri
1. Suvojit Acharjee and Sheli Sinha Chaudhuri, “Fuzzy Logic Based Four Step Search Algorithm for Motion Vector Estimation”, International Journal of Image, Graphics and Signal Processing (IJIGSP), ISSN: 2074-9074(Print), ISSN: 2074-9082 (Online),Page Number:49-55,Vol 4 issue 4,May 2012. , 46,Published By: MECS Publisher,[Indexed at EBSCO, Crossref ]
2. Suvojit Acharjee and Sheli Sinha Chaudhuri, "Fuzzy Logic Based Three Step Search Algorithm for Motion Vector Estimation", International Journal of Image, Graphics and Signal Processing (IJIGSP), ISSN: 2074-9074(Print), ISSN: 2074-9082 (Online),Page Number:37-43,Vol 4 issue 2, March 2012. Published By: MECS Publisher,[Indexed at EBSCO, Crossref ]

8. Swati Chowdhuri, Dr. Sheli Sinha Chaudhury, Dr. Arun Kumar Mondal, Dr. P.K.Baneerjee"Optimize Transmission Ranges and Improved Information Efficiency of MIMO Equipped Mobile Ad Hoc Network in Presence of Fading", Communicating with Computer Communication, Elsevier.

Publication List of Dr. Sudhabindu Ray

Publication List of Dr. Sudhabindu Ray and Prof. S. K. Sarkar

Publication List of Prof. Chandan Kumar Sarkar and Mr. Sayan Chatterjee

Publication List of Dr. Sudipta Chattopadhyay

4. B. Articles Published in Conferences in the Year 2012- 2013:

Publication List of Prof. Amit Konar


5. Anuradha Saha, Amit Konar, Pratyusha Rakshit, and Atulya K. Nagar, "Olfaction Recognition by EEG Analysis using Differential Evolution Induced Hopfield Neural Net", in Proc. of IEEE 13th International Joint Conference on Neural Networks(IJCNN), Dallas, TX, 2013.


27. Pratyusha Rakshit, Archana Chowdhury, Amit Konar, and Atulya K. Nagar, "Evaluating the Designing Perspective of Protein-Protein Interaction Network using Evolutionary Algorithm", in


50. Debatri Chatterjee, Arijit Sinharay and Amit Konar, "EEG-Based Fuzzy Cognitive Load Classification during Logical Analysis of Program Segments", in Proc. of IEEE International Conference on Fuzzy Systems, 2013, Hyderabad, India.

Publication List of Prof. Bhaskar Gupta

Publication List of Prof.C.K.Sarkar

Publication List of Prof. M.K Naskar


Publication list of Prof. Iti Saha Misra


Publication List of Prof. Iti Saha Misra and Prof. Salil Kumar Sanyal


**Publication List of Prof. Subir Kumar Sarkar**


Publication List of Dr. A.S. Chowdhury


**Publication List of Dr. (Mrs.) Chayanika Bose**


**Publication List of Dr. Manotosh Biswas**


**Publication List of Dr. P. Venkateswaran**


**Publication List of Dr. P. Venkateswaran and Dr.R.Nandi**


**Publication List of Dr. Sheli Sinha Chaudhuri**


Publication List of Dr. Sudhabindu Ray


**Publication List of Mr. Sayan Chatterjee**


**Publication List of Prof. Chandan Kumar Sarkar and Mr. Sayan Chatterjee**


2. Sagar Mukherjee, Dipankar Saha, Posiba Mostafa, Deepon Saha, **Sayan Chatterjee**, C. K. Sarkar, "A Low Power, High Speed, IF Range Flash Type ADC designed with the concept of TMCC and Binary Counter", IEEE INDICON, Dec., 2012.


Publication List of Dr. Sudipta Chattopadhyay


5. Collaborative Programmes:

1. Prof. Amit Konar has new collaborations with Prof. Lakhmi C. Jain, Univ. Of South Australia, Adelaide.

2. Prof. Amit Konar has collaborations with Prof. Anca Ralescu, Univ. Of Cincinnati, USA.

3. Prof. Amit Konar has collaborations with Prof. Atulya K. Nagar, Liverpool Hope University, UK.


5. Dr. A.S. Chowdhury has started collaboration with Dr. Xiaoqi Jiang, University of Münster, Germany on "Detection of Retinal Blood Vessels".

6. Dr. A.S. Chowdhury has started collaboration with Dr. Ronald M. Summers, National Institutes of Health, USA and Dr. Joseph Burns, University of California, Irvine, USA on “Detection of Pelvic Fractures”.

7. Dr. A.S. Chowdhury has started collaboration with Dr. Ayman El-Baz, University of Louisville, USA on “Non-rigid Registration of Biomedical Images” and “Kidney Segmentation from Very Low Contrast MRI data”.

8. Dr. A.S. Chowdhury has collaborations with Dr. Kannappan Palaniappan, University of Missouri, Columbia, USA on “Tracking of Muscle Satellite Cells”.

9. Dr. A.S. Chowdhury has collaborations with Dr. Nilanjan Ray, University of Alberta, Canada on “Tracking of Human Monocyte Cells”.

10. Prof. Bhaskar Gupta is associated with RF Systems and Antennas (Joint Research Project initiated with Govt. of Tunisia). Indian Representative –Prof. B. Gupta and Tunisia Representative- Prof. Ali Ghatshala.
11. Dr. Sudhabindu Ray has been appointed as Co-PI of collaborative research project (with IIT KGP) “Design and Development of High Speed Miniaturized RF MEMS Switched Capacitor” sponsored by ISRO.

12. Dr. Sudhabindu Ray has associated Fabrication of High Speed RF MEMS Based Miniaturized Switched Capacitor Based Phase Shifting Unit Cell (INUP Project at IIT Bombay) in collaboration with IIT Kgp. (Completed).

13. Dr. Sudhabindu Ray Co-PI of DST sanctioned Indo-Tunisian project “Development of wearable antennae for Body Centric application and studies on their physiological effects”.

14. Dr. Sudhabindu Ray has initiated collaborative research with IIT, Bombay.

6. **Major Achievements in the year 2012-2013:**

**Achievement of the Department**

The Department of Electronics & Tele-Communication Engg., Jadavpur University successfully organized an International Conference on Communication, Devices and Intelligent Systems – CODIS during Dec. 28 & 29, 2012 with **Prof. Subir Kumar Sarkar, Head, Dept. of ETCE as General Chair**. There were 336 valid submissions with authors from Australia, Bangladesh, China, Republic of Korea, South Africa, Thailand, Turkey, USA apart from India. Based on the recommendations made by the reviewers, we were able to accept a total of 177 papers leading to a 52.7% acceptance rate. Out of 177 papers, we could accommodate 102 papers for Oral and 75 papers for Poster presentations. The technical program, spanning 2 days, consists of 18 oral and 4 poster sessions. Three parallel tracks, each with six sessions, have been organized for hosting 102 oral presentations. For 75 poster presentations, two parallel sessions were held on each day. Apart from the contributed papers, the technical program has included 1 Plenary and 9 Invited talks in emerging research fields. The plenary talk on Hybrid spintronics and straintronics: An Ultra Low Energy Paradigm for Digital Computing was delivered by Prof. Supriyo Bandyopadhyay from the Virginia Commonwealth University, USA. We had designated one invited talk as Jnan Saran Chatterjee Memorial Lecture in the name of the Founder member of our department. This lecture on Cell Tower Radiation Hazards and Solutions was delivered by Prof. Girish Kumar from IIT Bombay. All the papers presented in 2012 CODIS have been indexed in IEEE Xplore.

**Achievements of the Faculty:**

1. **Prof. Amit Konar** has been appointed as an Associate Editor of *IEEE Trans. on Fuzzy Systems* for the period 2012-2013, *IEEE Trans. on Systems, Man and Cybernetics* (Part-A) for the period 2012 and Neurocomputing, Elsevier for the period 2012-2013.

2. One Indian patent entitled “A novel approach to measure cognitive load of subjects by EEG analysis,” by Arijit Sinharay, Debatri Chatterjee and **Prof. Amit Konar** has been filed.

3. **Prof. Amit Konar** has served as the program co-chair for the prestigious IEEE Computational Intelligence Flagship Conference: *FUZZ-IEEE*, 2013.

4. **Prof. Bhaskar Gupta** has been appointed as Chairman, Audit Committee, Direct Freight Corridor Corporation of India.

5. **Prof. Bhaskar Gupta** is appointed as Committee member, Common Entrance Test (CET) for admission into the post graduate courses in general education offered by the Universities and State-aided colleges offering PG courses in West Bengal.

6. **Prof. Bhaskar Gupta** acted as Chair, Award Committee, MMS 2013, Beirut, Lebanon.
7. **Prof. Bhaskar Gupta** has obtained Best Paper Award in ICMARS 2011, Jodhpur, Rajasthan for the paper by his student Dr S. Sankaralingam.

8. **Prof. Bhaskar Gupta** is continuing as Chairman, West Bengal Board of Joint Entrance Examinations.

9. **Prof. Salil kumar Sanyal** has been appointed as Chairman, Circuits and Systems Society Chapter of IEEE Calcutta Section.

10. **Prof. Iti Saha Misra** obtained best paper award CUBE 2012 International Information Technology Conference and Exhibition, ACM, PUNE, Maharashtra, India, 3-5 Sep 2012.

11. **Prof. Iti Saha Misra** Obtained the fund from IEEE HQ, USA, for doing project on “Low Cost Low Bandwidth Remote Virtual Educational Platform for underserved” and successfully completed the project under Special Interest Group for Humanitarian Technology, SIGHT, Acted as the coordinator of the SIGHT project.

12. **Prof. Iti Saha Misra** has been appointed as Chairperson, of SIGHT, IEEE Kolkata Section.

13. **Prof. Iti Saha Misra** has been appointed as Secretary, IEEE Kolkata Section.

14. **Prof. Subir Kumar Sarkar** is the Editor-In-Chief of the International Journal of Nano Electronics, Circuits and Systems.

15. **Prof. Subir Kumar Sarkar** was the General Chair of International conference on communications, devices and Intelligent Systems (CODIS 2012).

16. **Prof. Subir Kumar Sarkar** was with an investigating team for investigation in a plant of General Power Corporation after some complain against Wessman Pvt. Ltd.

17. **Dr. A.S. Chowdhury** was a invited speaker (for a panel discussion) at Indo-US Bilateral Symposia on Advances in Computer Vision, IIT Bombay, 2012.

18. **Dr. A.S. Chowdhury** was selected member of International Association for Pattern Recognition (IAPR)’s Technical Committee on "Graph-based Representations (GbR) in Pattern Recognition (PR)", 2012.

19. **Dr. Sudhabindu Ray** has appointed as member of technical subcommittee ,West Bengal Jointentrance Board.

20. **Dr. Sudhabindu Ray** has appointed as academic member of School of Nuclear Studies and Application.

21. **Mr.Sayan Chatterjee** has appointed as a reviewer of International Journal of Electronics (IJE).

22. **Mr.Sayan Chatterjee** has appointed as a reviewer of 2012 IEEE Asia Pacific Conference on Applied Electromagnetics.

23. **Mr.Sayan Chatterjee** has appointed as a reviewer of 2012 IEEE Int. Conference on Electronic Design, System and Applications.

24. **Mr.Sayan Chatterjee** has appointed as a reviewer of 2012 IEEE Symposium on Industrial Electronics and Application.

25. **Mr.Sayan Chatterjee** has appointed as a reviewer of 2012 IEEE Symposium on Wireless Technology and Applications.

26. **Mr.Sayan Chatterjee** has appointed as a reviewer of 2012 IEEE Int. Conference on Communications, Device and Intelligent Systems (CODIS)

27. **Mr.Sayan Chatterjee** has appointed as a reviewer of 2012 IEEE Int. RF and Microwave conference.
28. **Mr. Sayan Chatterjee** has appointed as a reviewer of 2012 IEEE Symposium on Wireless Technology and Applications.

29. **Mr. Sayan Chatterjee** has appointed as a member of IEEE Special Interest Group on Humanitarian Technology (SIGHT).

30. **Dr. P. Venkateswaran** acted as the **Organizing** chair to organize an IEEE-sponsored International conference CODIS-12 by the Department.

**Achievements of the Students:**

1. LAP Lambert Academic Publishing house has agreed to publish M.Tech Thesis written by B. Pradhan in the form of Book. Thesis is guided by Prof. B. Gupta.


3. Amrita Chakraborty awarded second best prize in "National Conference on Advancement of Science and Technology and Sustainable Development Following the ideals of Swami Vivekananda" at Indian Association for Cultivation of Science, Kolkata, India.

4. S. Chatterjee, A. Bhaduri, T. Bagchi, D. Basu sent a project proposal on designing a Smart Security System for home security to Anveshan 2012, organized by M/S Analog Devices(India) Private Limited and Jadavpur University was selected among the top ten institutions in India based on the proposals.


7. Bitan Bandyopadhyay achieved 3rd and final International Master Norm in National Premier Chess Championship.

8. Bitan Bandyopadhyay secured 7th position in National Challenger’s Chess Championship.

9. Bitan Bandyopadhyay was the Silver Medallist in National Inter-University Chess Championship.

**Ph.D Awarded or Submitted:**

<table>
<thead>
<tr>
<th>Name of the Research Scholar</th>
<th>Name of the Guide:</th>
<th>Title of the Ph.D Thesis:</th>
<th>Present Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>L Lolit Kumar Singh 2012</td>
<td>Prof. Bhaskar Gupta</td>
<td>Effects of ground plane and perturbations on Microstrip antenna performance</td>
<td>Awarded in 2012</td>
</tr>
<tr>
<td>R R Wakodkar 2013</td>
<td>Prof. Bhaskar Gupta</td>
<td>Analysis and modeling of Microstrip antenna under perturbed and environm-</td>
<td>Awarded in 2013</td>
</tr>
</tbody>
</table>
Avra Kundu
2013
Prof. Bhaskar Gupta
Performance enhancement of RF MEMS for switching and other applications
Submitted in
Avra Kundu
2013
Prof. Bhaskar Gupta
Optimal design of waveguide filter using artificial intelligence techniques
Submitted in
Dibyendu Kayal
(2012)
Prof. Chandan Kumar Sarkar
Awarded
Amretashis Sengupta
(2012)
Prof. Chandan Kumar Sarkar
Awarded
Mrinal Kranti Hota
(2013)
Prof. Chandan Kumar Sarkar
Awarded
Swapnadip De
(2013)
Prof. Chandan Kumar Sarkar
Awarded
Anshuman Sarkar
(2013)
Prof. Chandan Kumar Sarkar
Awarded
Sraborti Pandit
(Thesis Submitted)
Prof. Chandan Kumar Sarkar
Awarded
Sunipa Roy
(Thesis Submitted)
Prof. Chandan Kumar Sarkar
Awarded
Sudipta Chattopadhyay
(2012)
Prof. Salil K. Sanyal
Some Studies on the Role of various Pulse-shaping Filters in Determining the Performance Metrics of QPSK & OQPSK based Mobile Communication Systems Awarded
Biswa Binayak Mongaraj Prof. Iti Saha Misra
2012
Nitu Dutta
Prof. Iti Saha Misra
Studies of Hierarchical IPv6 Based Mobility Model in Search of Optimal Performance for Next Generation Networks Awarded
Kalpana Saha Roy
Prof. Iti Saha Misra
Some Studies on Call Admission Control Protocol with QoS Provisioning in Next Awarded


**Generation Cellular Networks**

Dr. S. Dogra, 2012
Prof. S.K.Sarkar
Some studies on mobile communication Awarded

Dr..Sanjoy Deb 2012
Prof. S.K.Sarkar
An overview of nano electronic devices and their applications Awarded

Dr.Koushik Majumder 2012
Prof. S.K.Sarkar
Design and Performance study of routing protocols for mobile Ad hoc Network Awarded

Dr.G.P.S Mishra(QIP) 2012
Prof. S.K.Sarkar
To study the characteristics of low dimensional semiconductor structures and explore some applications Awarded

Dr. N Basanta Singh, 2013
Prof. S.K.Sarkar
To Study some aspects of micro and nanoelectronics structures and their applications Awarded

Dr. C. John Clement 2013 Singh
Prof. S.K.Sarkar
Nano devices and their applications Awarded

Dr. K. Senthil Kumar 2013
Prof. S.K.Sarkar
To study some characteristics of Low Dimensional, Low power consuming and High Frequency Nano Devices. Awarded

Sri.Rajanna K M(QIP) 2013
Prof. S.K.Sarkar
Some studies on RFID and explore some low power system realization Submitted

**FOOD TECHNOLOGY & BIO-CHEMICAL ENGINEERING**

Phone : + 91-33-2414-6822
Int. : 2457-2241
H.O.D. : Prof. Utpal Raychaudhuri
E-mail : hod@ftbe.jdvu.ac.in

Major Research Project: Centre of Advanced Studies- Phase II by UGC, Coordinator-Prof. Utpal Raychaudhuri and Deputy Coordinator –Prof. Runu Chakraborty

Invited lectures Delivered/Sessions Chaired:
Prof. Utpal Raychaudhuri & Dr. Paramita Bhattacharjee

- Delivered an invited lecture on 'Food Irradiation: Safety and Quality of Irradiated Foods' for 'CH-IIT Certificate course in Food Safety and Quality Management (FSQM)' in the Agricultural and Food Engineering Department of at IIT-Kharagpur on March 1, 2013.

Seminar/Workshop/Conference/Symposium Attended:

Dr. Paramita Bhattacharjee

1. Extraction of antioxidant-rich fractions from clove buds using supercritical carbon dioxide and comparative evaluation of antioxidant efficacies of these un-encapsulated and encapsulated fractions in soybean oil, Dipan Chatterjee, Paramita Bhattacharjee, Oral presentation in AICTE Sponsored National Seminar on Recent Advances in the Development of Natural Antioxidants, Gurunanak Institute of Technology, March 12-13, 2013.


3. Quality assessment of fried potato wedges by fuzzy logic and texture analyses, Probir Kumar Ghosh and Paramita Bhattacharjee, Poster presentation in 'Food Engineering', XXII Indian Convention of Food Scientists and Technologists (ICFOST-XXII) on SAFEST (Safety Assurance of Foods through Emerging Science & Technology) INNOVATIONS, CFTRI, Mysore, India, December 6-7, 2012. This poster won the second prize in the section of the Food Engineering.

4. Physicochemical analyses and food applications on clove bud extracts obtained by liquid and supercritical carbon dioxide extraction technologies, Dipan Chatterjee, Paramita Bhattacharjee, Anindita Banerjee, oral presentation in International Conference on Engineering & Applied Science, Beijing, China, July 24-27, 2012.

5. Supercritical carbon dioxide extraction of Ocimum sanctum Linn and a comparative evaluation with other extraction techniques: Process optimization and phytochemical properties, Sudip Ghosh, Dipan Chatterjee and Paramita Bhattacharjee, oral presentation in International Conference on Food and Nutrition Technology for Public Health Care, ICFNP-2012, organized by International Institute of Stress Management and Allied Sciences (IISMAAS), Jawaharlal Nehru University, New Delhi, May 4-5, 2012.

Course / Seminar Organized / Participated:

- Coordinated a 2-day UGC-sponsored Short Term Course on ‘Health Foods using Traditional Herbs and Spices’ in the Dept. of FTBE, JU, March 25-26, 2013.

- Coordinated a 21-day UGC-sponsored Refresher Course on 'Process Control and Analytical Techniques in Food Processing and Quality Evaluation' in the Dept. of FTBE, JU, June 12-July 2, 2012.
• Books/Monographs etc. Published: Prof. Utpal Raychaudhuri (Co-Author)

Articles published in Journals: Dr. Paramita Bhattacharjee


7. Paramita Bhattacharjee, Dipan Chatterjee and Rekha S. Singhal, 'Studies on supercritical carbon dioxide extraction of squalene from *Amaranthus paniculatus*', *Food and Bioprocess Technology*, 5: 2506-2521, 2012.

Publications:

Prof. Utpal Raychaudhuri & Prof. Runu Chakraborthy


3. Study on Electrochemical Immunoassay methodology for Protein A: a modified approach towards detection and quantification of *Staphylococcus aureus* in food samples, *Tania


Prof. Lalitagauri Ray


Prof. Lalitagauri Ray
• Member of the Advisory Board National Conference on organized by Dept of Food Sc. Rastraguru Surendranath College on , 2012.

Articles Published in Journals:
Prof. Lalitagauri Ray


Dr. Uma Ghosh
• Ranu Paul and Uma Ghosh; Effect of thermal treatment on ascorbic acid content of pomegranate juice. Indian J. of Biotechnology. 11, 309, 2012.

• Saswati Gayen and Uma Ghosh ;Effect of carbon compounds and metal ions on the production of tannase by Penicillium natatum NCIM 923 utilizing agri horticultural wastes by solid state fermentation J. Mycopathological Res. 50(1), 67, 2012

• Soumi Gayen and Uma Ghosh; Pectin methyl esterase production from mixed agro wastes by Penicillium natatum NCIM 923 in solid state fermentation J. Bioremed Biodegrad 2,119, 2011.

• Arnab Paramanik, Muthuraman Sundararaman, Satadal das, Uma Ghosh and Joydeep Mukherjee. Isolation and characterization of Cynobacteria possessing antimicrobial activity from the Sundarbans the World’s largest tidal Mangrove forest. J Phycol. 47, 2011.

• Soumi Gayen and Uma Ghosh Effect of different carbohydrates to increase the production of pectin methyl esterase by solid state fermentation J. Mycopathol. Res. 49,111,2011

Prof. Utpal Raychaudhuri & Prof. Runu Chakraborty


Major Achievement:

• New Four Year B.E. Course in Food Technology & Biochemical Engineering (Intake – 30) was started in July 2011.

Others:

Diploma Courses Organized : Coordinator – Prof. Utpal Raychaudhuri

• Food Processing and Customized Management (2012-13).
• Food Processing, Nutrition & Health Care (2012-13).

**INFORMATION TECHNOLOGY**

*(SALT LAKE)*

Phone : +91-33-2335-8321
1. A. Courses Offered:

<table>
<thead>
<tr>
<th>Name of the Course</th>
<th>Duration of the Course</th>
<th>Annual Intake</th>
</tr>
</thead>
<tbody>
<tr>
<td>B.E (Information Technology)</td>
<td>4 years degree course</td>
<td>65</td>
</tr>
<tr>
<td>M.E (Software Engineering)</td>
<td>2 year degree course</td>
<td>25</td>
</tr>
<tr>
<td>M.E (Software Engineering)</td>
<td>3 year degree course</td>
<td>20</td>
</tr>
<tr>
<td>for TCS sponsored students</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. B. Number of Faculty Members:

- Professor: 01
- Associate Professor: 00 (Sanctioned: 01)
- Assistant Professor: 04 (Sanctioned: 05)
- Lecturers on Contractual Basis: 03 (Sanctioned: 05)
- Reader on Contractual Basis: 01

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
(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

B. Major Research Projects:

- Departmental / Individual :Individual
  Name of the project: Content Based Video Indexing and Retrieval using Rectilinear Motion
  Principal Investigator: Bibhas Chandra Dhara
  Funding Agency: ISI

- Departmental / Individual :Departmental
  Name of the project: DST-PURSE Project
  Principal Investigator: Prof. Samiran Chattopadhyay Dr. Bibhas Chandra Dhara Dr. Uttam Kumar Roy Dr. Parama Bhaumik Dr. Bhaskar Sardar
  Funding Agency: Central Govt.

- Departmental / Individual :Individual
  Name of the project: Mobile Computing and innovative Applications
  Principal Investigator: Prof. Samiran Chattopadhyay & Munmun Das
  Funding Agency: Central Govt.

- Departmental / Individual :Individual
  Name of the project: Leveraging Wireless & Mobile Technology in Web Based Education
  Principal Investigator: Prof. Samiran Chattopadhyay
Funding Agency: State Govt.
Departmental / Individual : Collaborative
Name of the project: Identification of damage initiation mechanisms in Advanced High strength steels (AHSS) using in-suit tensile testing under scanning electron microscope
Principal Investigator: Dr. Bibhas Chandra Dhara, Co-Investigator
Funding Agency: Tata Steel Ltd., Jamshedpur

3. A. Invited Lectures Delivered/Session Chaired:
Name of the Teacher: Prof. Samiran Chattopadhyay
Type of Participants: Chaired a Session on "Mobile Computing"
Name of the Seminars /Conference: Third International Conference on Emerging Applications of Information Technology (EAIT 2012) Nov 29- Dec-01
Place: Kolkata, India
Duration: November 30, 2012 from 13:45 to 15:45

Name of the Teacher: Dr. Bibhas Chandra Dhara
Type of Participants: Member in a panel of judges to select a set of papers for the award of Special Mention Category of Papers
Name of the Seminars /Conference: Third International Conference on Emerging Applications of Information Technology (EAIT 2012) Nov 29- Dec-01
Place: Kolkata, India
Duration: November 30, 2012 from 13:45 to 15:45

Name of the Teacher: Dr. Bhaskar Sardar
Type of Participants: Resource person
Topic: "Mobile IP"
Name of the Seminars /Conference: Faculty Development Program
Place: Heritage Institute of Technology, Kolkata
Duration:

Name of the Teacher: Dr. Bhaskar Sardar
Type of Participants: Resource person
Topic: "IP Mobility Management"
Name of the Seminars /Conference: One day seminar on Advanced Computing and Communication
Place: Heritage Institute of Technology, Kolkata
Duration:

3. C. Seminar/Workshop/Conference/Symposium Organized:
Prof. Samiran Chattopadhyay and Dr. Bibhas Chandra Dhara acted as members of the Technical Program Committee of Third International Conference on Emerging Applications of Information Technology (EAIT 2012) held at Kolkata, India, on November 29 – December 01, 2012.

4. A. Books and Monographs etc. Published:
Name of the Teacher: Jayanta Mukhopadhyay, Partha Bhowmick, P.P. Das, Samiran Chattopadhyay, B.N. Chatterji, P.K. Biswas, P.K. Dutta, Anirban Mukherjee
Name of the Book: Digital Geometry in Image Processing
Name of the Publisher: Chapman and Hall/CRC Press

Name of the Teacher: Utpal Kumar Ray, Ryan Saptarshi Ray
4. B. **Articles Published in Journals/Conferences:**


5. Collaborative Programmes:
   - Professor Samiran Chattopadhyay works with Indian Institute of Technology, Kharagpur and Indian Statistical Institute and with Bengal Science and Engineering University for joint research work 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.
   - Mrs. Parama Bhaumik and Dr. Uttam Kumar Roy works with faculty of Indian Institute of Management, Calcutta on joint research projects.
   - Dr. Bhaskar Sardar works with faculty of Indian Institute of Management and researchers from Wipro Ltd for Ph.D program.

6. Major Achievements
   - A new class room and a new laboratory facility have been created as an additional facility for the department at the second floor of the Building of the Centre of Mobile Computing and Communications.
• Professor Samiran Chattopadhyay has served as a Part Time Technical Consultant to Interra Systems India Pvt. Ltd., Kolkata.
• Damini Nenawati got full-financed scholarship award “Erasmus Mundus Europe Asia” from the University of Milan, Italy.
• Meghna Gupta and Sayak Kundu got “Best Student Project Award” from TCS.

**INSTRUMENTATION & ELECTRONICS ENGINEERING**

(SALT LAKE)

Phone : + 91-33-2335-2587
Int. : 6139
H.O.D. : Dr. Bipan Tudu
E-mail : dept@iee.jusl.ac.in

1. **A. Courses Offered:**

<table>
<thead>
<tr>
<th>Name of the Course:</th>
<th>Duration</th>
<th>Course Started</th>
<th>Total Intake</th>
<th>No. of Students Enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instrumentation &amp; Electronics Engineering</td>
<td>4 Years</td>
<td>Bachelor of Instrumentation</td>
<td>41</td>
<td>41</td>
</tr>
<tr>
<td>Bachelor of Technology in Instrumentation and Electronics Engineering</td>
<td>3 Years</td>
<td>1966</td>
<td>22</td>
<td>22</td>
</tr>
<tr>
<td>Master of Technology in Instrumentation and Electronics Engineering</td>
<td>2 Years</td>
<td>2001</td>
<td>08</td>
<td>08</td>
</tr>
<tr>
<td>Ph. D.</td>
<td>1966</td>
<td></td>
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</tr>
</tbody>
</table>

• Meghna Gupta and Sayak Kundu got "Best Student Project Award" from TCS.

2. **B. Number of Faculty Members:**

**Professor(s)**
Kalyankumar Ray
Subhankar Bandyopadhyay
Ardhendu Ghoshal
Rajib Bandyopadhyay
Bivas Dam

**Associate Professor(s)**
Kalyan Majumdar
Rajanikanta Mudi
Kumardeb Banerjee
Bhaswati Goswami
Ratna Ghosh

**Assistant Professor(s)**
Runu Banerjee.
Prolay Sharma
Bipan Tudu

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

i) Signal Processing
ii) Digital System Design
iii) Intelligent Control
iv) Electronic Olfaction
v) Embedded Systems
vi) Sensor Design
vii) Control System
viii) Filtering and estimation
ix) Bio-medical instrumentation

2. B. **Major Research Project:**
   
   Name of the Project : FIST-2008
   
   Investigators : Head of Deptt.
   
   Funding Agency : DST, Govt. of India
   
   Amount (Rs. Lakhs): 150.50
   
   Duration : 2009-2014
   
   Name of the Project : Studies on fabrication, characterization and standardization of Fractance
   
   Investigators : Dr. B. Goswami Dr. R. Ghosh
   
   Funding Agency : DST - PURSE
   
   Amount (Rs. Lakhs): 61.21
   
   Duration : 2009-2012
   
   Name of the Project : Development of PID Controllers for Networked Control of Process Plants with Packet drop-out and Data Loss
   
   Investigators : Prof. A. Gupta (Power Engg) Dr. B. Goswami Dr. R. Ghosh
   
   Funding Agency : BRNS, Govt. of India
   
   Amount (Rs. Lakhs): 28.83
   
   Duration : 2010-2013
   
   Name of the Project : Development of QCM Sensors Array for Black Tea Flavour Detection with Electronic Nose
   
   Investigators : Mr. Prolay Sharma
   
   Funding Agency : SERC, DST, Govt. of India
   
   Amount (Rs. Lakhs): 6.67
   
   Duration : 2010-2012
   
   Name of the Project : Development of a Combined Electronic Nose & Tongue System For Improved Classification of Black Tea Quality
   
   Investigators : Ms. Runu Banerjee
   
   Funding Agency : SERC, DST, Govt. of India
   
   Amount (Rs. Lakhs): 6.80
   
   Duration : 2010-2012
   
   Name of the Project : Inward leaf inspection system for Indian tea industries
   
   Investigators : Prof. Rajib Bandyopadhyay
   
   Funding Agency : DeitY, Govt. of India
   
   Amount (Rs. Lakhs): 21.00
   
   Duration : 2012-2013
   
   Name of the Project : Development of Ammonia Gas Sensor
   
   Investigators : Prof. Subhankar Bandyopadhyay
   
   Funding Agency : UGC, Govt. of India
   
   Amount (Rs. Lakhs): 10.30
Duration :2012-2014

Name of the Project :Development of Voltammetric Electronic Tongue with Different Electrodes Made of Nano Composites of Carbon and Polymer for Quality Analysis of Tea
Investigators :Prof. Rajib Bandyopadhyay
Funding Agency : CSIR Govt. of India
Amount (Rs. Lakhs):18.00
Duration :2012-2014

3. A. Invited Lectures Delivered/ Session Chaired:
• Prof. Rajib Bandyopadhyay delivered a lecture on “Electronic Nose and Tongue” in the refresher course organized by School of Biomedical Engg., in 2012
• Prof. Kumardeb Banerjee delivered a lecture on “Signal Processing in Measurement Systems” in the refresher course organized by School of Biomedical Engg., in 2012
• Prof. R. Bandyopadhyay delivered a lecture on “Data analysis techniques for electronic olfaction” in the Refresher Course organized by the Department of Instrumentation Science, Jadavpur University on “Recent Developments in Analytical Instrumentation” in the month of June 2012

3. B. Seminar/ Workshop/ Conference/Symposium Attended:
INTERNATIONAL


**Title of the Book:** Intelligent Systems for Machine Olfaction: Tools and Methodologies  
**Edited by:** Evor L Hines and Mark S Leeson  
**Publisher:** IGI Global  
**Title of the chapter:** Making an electronic nose versatile: the role of incremental learning algorithms By Nabarun Bhattacharyya, Rajib Bandyopadhyay and Bipe Tudu

4. **Articles Published in Journals:**

**INTERNATIONAL**


5. **Collaborative Programmes:**

   a. Commercialization of indigenously developed sensors at Sensor Hub located at CGCRI, Kolkata (a collaborative program of Central Glass & Ceramic Research institute, Centre for Development of Advanced Computing, Calcutta University, Bengal Engineering & Science University) Principal Investigator from Jadavpur University: Prof. Rajib Bandopadhyay, Dept. of IEE.

   b. Dr. Ratna Ghosh visited Department of Mathematics, IISc, and Bangalore and worked with Prof. M. K. Ghosh for collaborative research in June 2012.

**MECHANICAL ENGINEERING**

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Int. : 2457-2248  
H.O.D. : Prof. Sadhan Kumar Ghosh  
E-mail : hod@mech.jdvu.ac.in

1. **Major Research Project:** (Departmental / Individual, Name of the Project/Funding agency).  
Details of the ongoing Project between 01.04.2012 and 31.03.2013:

**Publications:**


Academic Appointments / Lectures Abroad by Prof Sadhan K Ghosh:
1. Delivered lecture at Fu Jen Catholic University, on 28th March 2013.
2. Delivered lecture at Green Trade Project Office, Ministry of Economic Affairs, Taiwan on "Green Manufacturing on 26th March 2013.
3. Delivered lecture at Green Trade Project Office, Taiwan on "TQM" on 27th March 2013.
4. Visited Tongji University, China on invitation during 29th March to 5th April 2013.
6. Visiting Faculty at Aston University, UK : Carried out collaborative research during October – November 2012. 25th to June 14th 2013 under UKIERI.

Outstanding Achievement:
Awarded Distinguished Visiting Fellow by Royal Academy of Engineering, UK in December 2012 to work on "Energy Recovery from Municipal Waste".

Lectures Abroad by Prof Sadhan K Ghosh
1. Speech at the International conference on SWM at DST and IIWM at Bhopal in February 2013.
2. Lecture on House Keeping and TQM in MANIT, Bhopal in February 2013.

Research Projects Ongoing by Prof Sadhan K Ghosh as PI
1. UK India Educational Research Initiative – Thematic Partnership Research Project "Waste to Energy from MSW – Decision support System for planning and implementation in India" Partners are Aston University, UK and IIT Kharagpur, 2013 – 2015 – 40,000 GBP.
5. Research Project on Study & developing 2nd generation DDP for 5 years planning for Howrah Municipal Corporation, 2012 – INR 6.60 Lacs.

Edited Volume as Chief Editor by Prof Sadhan K Ghosh
Proceedings of 3rd International Conference on Solid Waste Management, in 2012 (Associate editors are Dr. R. Stegmann, Dr. J. Wong, Mr. J C. Muffat, Dr. P. Agamuthu, Dr. Wang Jing-Yuan AND Prof P. K. Dey,

Chairman of Icon SWM
Chairman, 4th International Conference on Solid Waste Management to be held at Hyderabad organized by Govt of Andhra Pradesh during January 28-30, 2014.

Prof. Sankar Dhar
Research Projects:
Principal Investigator:  Prof. Sankar Dhar
Acting PI Co Investigators: Dr. sanjib Acharyya
Name of the Research Project :Modelling and Finite element Simulation of Multiaxial Fatigue and Ratcheting of SA333 C-Mn steel
Project Value : 19.0 Lakhs
Funding Agency: BARC

2. Invited Lectures Delivered / Session Chaired:
Prof. Sankar Dhar
Lectures delivered:
Date:04-05 May,2012
Organisation: TATA STEEL R&D and NML
Topic: Finite Element Application in Metal Plasticity
Capacity: Invited Speaker

Lectures delivered:
Date: 20.07.2012
Organisation:PXE, DRDO
Topic: Finite Element Analysis of ballistic Penetration in Armour Steel
Capacity:Invited Speaker

3. Invited to Chair / Co – Chair Technical Session:-
Prof. Sankar Dhar
Fatigue Fracture and Integrity Assessment (FFIA), 04-05 May, 2012 organised by Tata Steel R&D and NML Jamshedpur

Papers Published in Journals/Magazines:
Prof. Sankar Dhar

Dipankar Sanyal

[A] Publications

[B] Projects
1. Name of Funding Agency: ITR, Chandipur
   Project Title/PI or Co-I (other members): Design and Implementation of Two-Axis Direct Drive Tracking Mechanism/Co-I (with Kumardeb Bandyopadhyay, Kamalesh Majumdar, Sanjib Kumar Acharyya, Saikat Mookherjee, Sanjoy Saha, Rana Saha)
   Duration Funding : 2013-2015 Rs 10.0 lakh
2. Name of Funding Agency: ER&IPR, DRDO, New Delhi
   Project Title/PI or Co-I (other members): Development of a Multiple Degree of Freedom Hydraulic Parallel Manipulator with Control for Motion Tracking/Co-I (with Rana Saha)
   Duration Funding : 2012-2015 Rs 43.91 lakh
3. Name of Funding Agency: Aeronautics R&D Board, New Delhi
   Project Title/PI or Co-I (other members): Design of Low Noise Swash Plate axial Piston Pump/PI (with Rana Saha)
   Duration Funding : 2012-2014 Rs 14.86 lakh
4. Name of Funding Agency: HAL, Lucknow
   Project Title/PI or Co-I (other members): Analysis of Pressure Compensator Design of LCA –130 lpm Main Hydraulic Pump by Modelling and Simulation/ Co-I (with Saikat Mookherjee & Rana Saha)
   Duration Funding : 2012-13 Rs 4.0 lakh
5. Name of Funding Agency: Aeronautics R&D Board, New Delhi
   Project Title/PI or Co-I (other members): High-Frequency Real Time Tracking Control for Linear Servo Actuation System/Co-I (with Rana Saha)
   Duration Funding : 2012-2014 Rs 20.45 lakh

Publications of Prof. Simul Banerjee (1st April 2012 to 31st March 2013) Present "h index": 3


Prof. Goutam Sutradhar
Published in Journal (National/International) During April 2012 to March 2013


Presented Paper in National/International Conferences:


PAPER PRESENTED IN ABROAD


Books Written


Review Work:

Reviewed 20 cds [about 40 hours] of recording and time line of 4 weeks to launch a portal containing courses on Casting Design and Simulation by Prof. B. Ravi, Chair Professor, Department of Mechanical Engineering, IIT Bombay organized by Dept of Chemical Engineering, IIT Bombay under Talk To A Teacher Project funded by Ministry of Human Resources and Development (MHRD), New Delhi during April-May 2012

International Technical Tour:

1. Visited Ten Foundries in Japan as delegate of The Institute of Indian Foundrymen (IIF) as Joint venture between two countries during 15.4.2013 to 22.4.2013

Invited Lectures Delivered / Session Chaired:

Prof. Sudipta De

Date: 7th February, 2013

Organisation: International Conference on Energy Resources & Technologies for Sustainable Development (ICERTSD), BESU, Shibpur, West Bengal,

Topic: Energy systems modeling – from first principle to data based

Capacity: Invited Speaker

Date: 5th August, 2013

Organisation: National Power Training Institute (NPTI), Durgapur, WB

Topic: ‘Electricity from conventional power plants: somethoughts on challenges and visible future trends’
Prof. Sudipta De:

International Journal Papers:

International Conference Papers:

National Conference Papers:

Prof. Sudipta De
1. Organizing a lecture series (over one-year) on ‘Sustainability of Indian Energy Sector: Prospects and Challenges’ jointly with Bengal Chamber of Commerce and Industry (BCCI) and European Business and Technology Centre (EBTC) with World Bank funding. (http://teqip.jdvu.ac.in/for_website/web_lecture.html)
2. Senior research fellow of ‘Indian-European Multi-Level Climate Governance Research Network’ (http://www.indiaeu-climategovernance.org/people/senior_researchers/de_sudipta/index.html).
3. Expert Member of High Power Committee of Kolkata Metropolitan Corporation (KMC) for saving of energy in public utilities.
4. Expert member of West Bengal Board of Boiler Operation Engineers under the Directorate of the Boiler, Government of West Bengal.
5. Member of the Core Group of the Jadavpur University for Indo-European Interactions on Higher Education coordinated by British Council.
6. Regular reviewer of many reputed international journals.

Achintya Mukhopadhyay

Journal Publication:

Conference Publication:


Research Projects (In addition to already included in report):

Principal Investigator: Achintya Mukhopadhyay
Acting PI/ Co Investigator: Swarnendu Sen, Koushik Ghosh, Amitava Datta
Name of the Research Project: Modeling and Experimental Validation of Spray Formation by Disintegration of Annular Swirling Liquid Sheets for Design of Advanced Fuel Injectors for Gas Turbine Combustors
Project Value in Lakh of INR: 15.58
Funding Agency: GATET-GTRE

Principal Investigator: Swarnendu Sen
Acting PI/ Co Investigator: Achintya Mukhopadhyay, Koushik Ghosh, Amitava Datta
Name of the Research Project: Conjugate Heat transfer Modeling with Gas Radiation for Gas-turbine Combustor/Afterburner Liners
Project Value in Lakh of INR: 16.67
Funding Agency: GATET-GTRE

Publications of Prof. Goutam Pohit
Referred Journals


Contribution in Conference Proceedings:


Sanjib Kumar Acharyya

International Journal:

1. Sumit Bhownik, Prasanta Sahoo, Sanjib Kumar Acharyya, Sankar Dhar, 2013, “Effect of corrosion on fracture toughness in ductile to brittle transition region of 20MnMoNi55 steel”, *Procedia Engineering*


Project Supervised:

1. Designation: Co-Investigator
   Title of the Project: Modelling and Finite element Simulation of Uniaxial and Bi-axial Low cycle fatigue and Ratcheting
   Funding Authority: BARC
   Duration: from 2008 to 2013
   Sanctioned Amount(Rs. in lakh): 12.0
   Status of the Project: Ongoing

2. Designation: Principal Investigator
   Title of the Project: Master Curve Generation for Fracture Toughness of the material 20MnMoNi55 from lower shelf to upper shelf"
   Funding Authority: BARC
   Duration: from 2009 to 2013
   Sanctioned Amount(Rs. in lakh): 44.0
   Status of the Project: Ongoing

3. Designation: Principal Investigator
   Title of the Project: Fracture Tests on Three Point Bend Specimens of the material 20MnMoNi55 at Room and Sub-zero Temperature to Investigate Master Curve."
   Funding Authority: BARC
   Duration: from 2010 to 2014
   Sanctioned Amount(Rs. in lakh): 39.0
   Status of the Project: Ongoing

4. Designation: Principal Investigator
Title of the Project: Measurement of Mass Properties of Payloads
Funding Authority: RCI, DRDO
Duration: from 2010 to 2013
Sanctioned Amount (Rs. in lakh): 9.95
Status of the Project: Ongoing

5. Designation: C.I
Title of the Project: Design & Implementation of two-axis direct-drive tracking mechanism
Funding Authority: ITR, DRDO
Duration: from 2013 to 2015
Sanctioned Amount (Rs. in lakh): 10.0
Status of the Project: Ongoing

Himadri Chattopadhyay
List of Publications
Journals

Conferences:
3. Bit, A., Chattopadhyaqy, H., Non-newtonian flows in stenosed channel, accepted for Indian Scince Congress, 3-7 January 2013
4. Nandi, T., Chattopadhyay, H, Development of flow and thermal field in wavy microchannels under inlet pulsations, accepted for Indian Scince Congress, 3-7 January 2013
5. Simlandi, S., Barman, N. and Chattopadhyay, H, Rheological Behaviour of Semisolid Alloy Slurry – an Overview, accepted for Indian Foundry Congress 27-29 January, 2013, Kolkata

Saikat Mookherjee
[C] Publications
2. N. P. Mandal, R. Saha, S. Mookherjee and D. Sanyal, 2013, Pressure compensator design for an axial piston pump, Trans. ASME Dynamic Systems Measurements Controls, Accepted for publication (manuscript no. DS-12-1356.)
Projects
1. Name of Funding Agency: ITR, Chandipur  
   Project Title/PI or Co-I (other members): Design and Implementation of Two-Axis Direct Drive Tracking Mechanism/Co-I (with Kumardeb Bandyopadhyay, Kamalesh Majumdar, Sanjib Kumar Acharyya, Dipankar Sanyal, Sanjoy Saha, Rana Saha)  
   Duration/Funding: 2013-2015 Rs 10.0 lakh

2. Name of Funding Agency: HAL, Lucknow  
   Project Title/PI or Co-I (other members): Analysis of Pressure Compensator Design of LCA -130 lpm Main Hydraulic Pump by Modelling and Simulation/PI (with Dipankar Sanyal & Rana Saha)  
   Duration/Funding: 2012-13 Rs 4.0 lakh

Dr. Nilkanta Barman

PUBLICATIONS

INTERNATIONAL JOURNALS

CONFERENCE PROCEEDINGS


**Best Paper Award**

Best Paper Award to Sri S. Mukherjee (a Student) for presenting a work entitled "Studies on Thermal Behavior for Cooling of a Building using Phase Change Material" by S. Mukherjee, S. Simlandi and N. Barman in the conference "Recent Advances and Challenges in Energy" held on January 4-6, 2012 at MIT, Manipal, India

**RESEARCH GRANTS**

Title: An Experimental Study on the Formation of Slurry during Solidification of a Metal Analogous Transparent Solution (NH₄Cl + H₂O) in Presence of Shear Flow

Funding Agency: DST under Fast Track Scheme (Rs. 14.64 lacs)

Duration: 2012-2015

**SWARNENDU SEN**

**Journal Publication:**


Conference Publication:


Research Projects (In addition to already included in report):
Principal Investigator:Achintya Mukhopadhyay
Acting PI/ Co Investigator: Swarnendu Sen, Koushik Ghosh, Amitava Datta
Name of the Research Project:Modeling and Experimental Validation of Spray Formation by Disintegration of Annular Swirling Liquid Sheets for Design of Advanced Fuel Injectors for Gas Turbine Combustors
Project Value in Lakh of INR:15.58
Funding Agency:GATET-GTRE

Principal Investigator: Swarnendu Sen
Acting PI/ Co Investigator:Achintya Mukhopadhyay,Koushik Ghosh, Amitava Datta
Name of the Research Project:Conjugate Heat transfer Modeling with Gas Radiation for Gas-turbine Combustor/Afterburner Liners
Project Value in Lakh of INR: 16.67
Funding Agency: GATET-GTRE

Prasanta Sahoo:

Publications

BOOK Chapters

- Dynamic Methods and Process Advancements in Mechanical, Manufacturing, and Materials Engineering, J P Davim (Ed.) IGI Global, Hershey, USA, 2012
  Chapter 2: Large Amplitude Forced Vibration Analysis of Stiffened Plates under Harmonic Excitation (pages 25-61), A Mitra, P. Sahoo, K Saha
- Dynamic Methods and Process Advancements in Mechanical, Manufacturing, and Materials Engineering, J P Davim (Ed.) IGI Global, Hershey, USA, 2012

RESEARCH Publications (most recent first)

2013


Contribution in Conference Proceedings:


2012 (since April)

Referred Journals


Contribution in Conference Proceedings


Tarun Kumar Naskar

Journal Papers:


Conference Papers


Gautam Majumder

Title: Experimental Investigation on the effect of reinforcement particles on the forgeability and the mechanical properties of aluminum metal matrix composition
Author's name: S.Das, R. Behera, A. Dutta, Gautam Majumdar, B. Oraon, G. Sutradhar
Page No.: 310-316
Name of the Journal: Materials science and application
Volume: November 2010

Title: An Experimental Investigation on the machinability of powder formed silicon carbide particle reinforced aluminum metal matrix composition
Author’s name: Sujit Das, R. Behera, A. Dutta, Gautam Majumdar, B. Oraon, G. Sutradhar
Page No.: 1-10
Name of the Journal: International journal of scientific & engineering and research
Volume: Volume 2 Issue 7, July 2011

Title: Performance measurement of distribution centre combining data envelopment analysis and analytic hierarchy process
Author’s name: P.S Chakraborty, Gautam Majumdar, B.Sarkar
Page No.: 117-128
Name of the Journal: Advances in Production Engineering & Management
Volume: Volume 6 Issue 2, 2011

Title: Prediction of electroless Ni-Co-P coating using response surface method
Author’s name: T. Banerjee, R. S. Sen, B. Oraon, Gautam Majumdar
Page No.: 
Name of the Journal: International journal of advance manufacturing technology
Volume: 4 April 2012

Title: Taguchi approach followed by fuzzy linguistic reasoning for quality productivity optimization in machining operation: a case study
Author’s name: Kumar Abhishek, Saurav Dutta, Siba Sankar Mahapatra, Goutam Mandal and Gautam Majumdar
Title: Appraisal and selection of third party logistics service providers in fuzzy environment
Author’s name: Saurav Dutta, Chitrasen Samantra, Siba Sankar Mahapatra, Goutam Mandal and Gautam Majumdar
Page No.: 537-548
Name of the Journal: Benchmarking an international journal
Volume: Volume 20 Number 4, 2013

Title: Prediction of surface roughness and application of response surface methodology to develop a mathematical model
Author’s name: N.Biswas, J.De, R.S.Sen, B.Oraon, Gautam Majumdar
Page No.: 2771-2777
Name of the Journal: International journal of innovative research in science, engineering and technology
Volume: Volume 2 Issue 7, 2013

Title: Estimation of noise of a moving passenger car
Author’s name: T.Roy, A.K.Mukhopadhyya, Sadhan K.Ghosh, Gautam Majumdar
Page No.: 459-464
Name of the Journal: Indian journal of environment protection
Volume: Volume 33 Number 6, June 2013

Title: Influence of honking on the noisier situation (L_{eq})
Author’s name: T.Roy, A.K.Mukhopadhyya, Sadhan K.Ghosh, Gautam Majumdar
Page No.: 132-136
Name of the Journal: Noise control engineering journal. (Acoustical Society of America)
Volume: Volume 60 Number 2 April 2012

AVIJIT MUKHERJEE
PAPER PUBLICATION IN INTERNATIONAL JOURNAL:

PAPER PUBLICATION IN THE PROCEEDINGS OF SEMINAR/CONFERENCE etc.:

REFRESHERS COURSE ATTENDED:
3. "Work Shop on Quartz Crystal Microbalance (QCM) and Surface Acoustic Wave (SAW) Sensors”, IEE, Jadavpur University, Salt Lake Campus, 13-14 May, 2013.

PARTICIPATION AS DELEGATE:
5. Evening Lecture on "Meeting the Growing Clean Energy Needs of India – A New Paradigm for Prosperity", Prof. (Dr.) Bikash Sinha, The Palladian Lounge, BCCI, Kolkata, 18th Feb., 2013.

APPOINTED AS “LABORATORY-IN-CHARGE”, M/C-TOOLS LABORATORY, MECHANICAL ENGINEERING DEPARTMENT ON 22.12.2012 FOR A PERIOD OF TWO YEARS.

Prakash Chandra Roy

International Journal papers (1st April 2012 to 31st March 2013)

International Conference Proceedings Papers


A. Session Chaired / Co-Chaired: (Name of the teacher, Type of participation, name of the Seminar/ Conference etc., Place, Duration).

Session co-chaired for the session “ENERGY SYSTEM MODELLING” in International Conference on Energy Resources and Technologies for Sustainable Development (ICERTSD-2013) on February 2013 at Bengal Engineering & Science University, Shibpur, Howrah, West Bengal, INDIA.

B. Seminar / Workshop / Conference / Symposium Attended:

Attended International Conference on Energy Resources and Technologies for Sustainable Development (ICERTSD-2013) on February 2013 at Bengal Engineering & Science University, Shibpur, Howrah, West Bengal, INDIA.

Book Published


Dipak Laha

Publications:

Journals:


Conferences:


RANA SAHA

[E] Publications:


[F] Projects

1. Name of Funding agency: ITR, Chandipur
   Project Title/PI or Co-I (Other Members): Design and Implementation of Two-Axis Direct Drive Tracking Mechanism/Co-I (with Kumardeb Bandyopadhyay, Kamalesh Majumdar, Sanjib Kumar Acharyya, Saikat Mookherjee, Sanjoy Saha, Dipankar Sanyal)
   DurationFunding: 2013-2015 Rs 10.0 lakh

2. Name of Funding agency: ER&IPR, DRDO, New Delhi
   Project Title/PI or Co-I (Other Members): Development of a Multiple Degree of Freedom Hydraulic Parallel Manipulator with Control for Motion Tracking/Co-I (with Dipankar Sanyal)
   DurationFunding: 2012-2015 Rs 43.91 lakh

3. Name of Funding agency: Aeronautics R&D Board, New Delhi
   Project Title/PI or Co-I (Other Members): Design of Low Noise Swash Plate axial Piston Pump/Co-I (with Dipankar Sanyal)
   DurationFunding: 2012-2014 Rs 14.86 lakh

4. Name of Funding agency: HAL, Lucknow
   Project Title/PI or Co-I (Other Members): Analysis of Pressure Compensator Design of LCA –130 lpm Main Hydraulic Pump by Modelling and Simulation/ Co-I (with Saikat Mookherjee & Dipankar Sanyal)
   DurationFunding: 2012-13 Rs 4.0 lakh

5. Name of Funding agency: Aeronautics R&D Board, New Delhi
   Project Title/PI or Co-I (Other Members): High-Frequency Real Time Tracking Control for Linear Servo Actuation System/PI (with Dipankar Sanyal)
   DurationFunding: 2012-2014 Rs 20.45 lakh

Nirmal K. Manna

List of Publications:

Journals:


Conferences:

a. Papers

b. Poster

Sudip Simlandi

Journals

Conferences:

Activities of Teachers During 2011-12
Annexure – II

Principal Investigator: Prof Sadhan K Ghosh, India Leader
Acting PI-Co Investigators: Partners are Aston University, UK and IIT Kgp, ITRC, CSIR Lucknow.
Project Value in lakh in INR: 40,000 GBP
Funding Agency: UKIERI
Principal Investigator: Prof Sadhan K Ghosh,
Acting PI-Co Investigators: -
Name of the Research Project: Research Project for Developing DPR for modernization of EWS for repair and maintenance of submersible pumps for enhanced quality and productivity.
Project Value in lakh in INR: 10.80 L
Funding Agency: KMC

Principal Investigator: Prof Sadhan K Ghosh,
Acting PI-Co Investigators: -
Name of the Research Project: Research Project for study of SWM status & developing detail Bio Gas Project Document for nine ULBs.
Project Value in lakh in INR: 3.00 Lakh
Funding Agency: Govt of West Bengal

Principal Investigator: Prof Sadhan K Ghosh,
Acting PI-Co Investigators: -
Name of the Research Project: Research Project on Study & developing 2nd generation DDP for 5 years planning for Howrah Municipal Corporation.
Project Value in lakh in INR: 6.62 Lakh
Funding Agency: HMC

Principal Investigator: Prof Sadhan K Ghosh,
Acting PI-Co Investigators: -
Name of the Research Project: Development of High Speed Jute Ribboner, Phase I
Project Value in lakh in INR: Rs. 58.00 Lacs
Funding Agency: JTM, The Jute Corporation of India
Principal Investigator: Prof Sadhan K Ghosh,
Acting PI-Co Investigators: Prof Asish Bandopadhyay Prof Pradip Kumar Pal
Name of the Research Project: Inventorisation of Plastics Recycling and processing units in West Bengal
Project Value in lakh in INR: Rs. 5.84 Lacs
Funding Agency: West Bengal Pollution Control Board

Principal Investigator: Prof Samir Kumar Saha
Acting PI-Co Investigators:
Name of the Research Project: History of Technical Education in India : 1900-2005
Project Value in lakh in INR: Rs.4.5 Lakhs
Funding Agency: Indian National Science Academy(INSA)

Principal Investigator: Prof Samir Kumar Saha
Acting PI-Co Investigators:
Name of the Research Project: Prasanta Chandra Mahalanobis – growth of Statistics & Statistical Organizations in India (PI)
Project Value in lakh in INR: Rs.2.0 Lakhs/Yr.
Funding Agency: Indian National Science Academy(INSA)

Principal Investigator: Prof Samir Kumar Saha
Acting PI-Co Investigators:
Name of the Research Project: Experimenting for sustainability : Urban Mobility in India (CO-PI)
Project Value in lakh in INR: -
Funding Agency: NOTRO - NOW, Netherlands

Principal Investigator: Prof Sankar Dhar
Acting PI-Co Investigators: Sanjib Kumar Acharyya
Name of the Research Project: Modelling and Finite Element Simulation of Uniaxial & Biaxial LCF and Ratchetting
Project Value in lakh in INR: -19.15
Funding Agency: BARC, Mumbai

Principal Investigator: Prof Dipankar Sanyal, Departmental Project Coordinator
Acting PI-Co Investigators:
Name of the Research Project: Combustion Control and Hydraulic Servocontrol under SAP-DRS of UGC, New Delhi
Project Value in lakh in INR:
Funding Agency: UGC, New Delhi

Principal Investigator: Prof Achintya Mukhopadhyay
Acting PI-Co Investigators: Prof Swarnendu Sen, Prof Dipankar Sanyal
Name of the Research Project: Dynamic Characterization of Model Gas Turbine Combustors for Early Detection of Thermoacoustic Instability and Lean Blow-out
Project Value in lakh in INR: Rs 14.95 Lakh
Funding Agency: DRDO

Principal Investigator: Prof Achintya Mukhopadhyay
Acting PI-Co Investigators: Prof Swarnendu Sen, Prof Dipankar Sanyal
Name of the Research Project: Fuel Effects on Performance and Emission Characteristics of Thermal Pulse Combustor  
Project Value in lakh in INR: Rs. 11.87 Lakh  
Funding Agency: CSIR  
Principal Investigator: Prof Achintya Mukhopadhyay  
Acting PI-Co Investigators: Prof Swarnendu Sen, Prof Amitava Datta, Dr Koushik Ghosh

Name of the Research Project: Modeling and Experimental Validation of Spray Formation by Disintegration of Annular Swirling Liquid Sheets for Design of Advanced Fuel Injectors for Gas Turbine Combustors  
Project Value in lakh in INR: Rs. 15.58 Lakh  
Funding Agency: GTRE  
Principal Investigator: Prof Achintya Mukhopadhyay  
Acting PI-Co Investigators: Prof Swarnendu Sen, Prof Dipankar Sanyal

Name of the Research Project: Dynamic Characterization of Model Gas-Turbine Combustors for Early Detection of Thermo-acoustic Instability and Lean Blowout  
Project Value in lakh in INR: Rs. 10 lakh  
Funding Agency: ERIP/ER, New Delhi  
Principal Investigator: Prof Swarnendu Sen  
Acting PI-Co Investigators: Dr Saikat Mookherjee

Name of the Research Project: Large Scale Molten-Coolant Interaction Study  
Project Value in lakh in INR: Rs. 95.71 Lakh  
Funding Agency: BARC  
Principal Investigator: Dr Sanjib Kumar Acharyya  
Acting PI-Co Investigators: Rana Saha, Dipankar Sanyal

Name of the Research Project: Measurement of Mass properties of Payloads  
Project Value in lakh in INR: Rs. 9.95 Lakh  
Funding Agency: RCI Hyderabad  
Principal Investigator: Dr Sanjib Kumar Acharyya  
Acting PI-Co Investigators: Prof Sankar Dhar

Name of the Research Project: Master Curve generation for fracture toughness of 20MnMoNi55 from lower shelf to upper shelf  
Project Value in lakh in INR: Rs. 44.00 Lakh  
Funding Agency: BARC, Mumbai  
Principal Investigator: Dr Sanjib Kumar Acharyya  
Acting PI-Co Investigators: Prof Sankar Dhar

Name of the Research Project: Fracture tests on 3 point bend specimens of material 20MnMoNi55 at room & subzero temperature to investigate Master Curve  
Project Value in lakh in INR: Rs. 39.42 Lakh  
Funding Agency: BARC, Mumbai  
Principal Investigator: Dr Sanjib Kumar Acharyya  
Acting PI-Co Investigators: Prof Sankar Dhar
Principal Investigator: Dr Sanjib Kumar Acharyya
Acting PI - Co Investigators: Prof Sankar Dhar
Name of the Research Project: Fracture toughness test of 20MnMoNi55 steel from lower shelf to upper shelf
Project Value in lakh in INR: Rs.52.00 Lakh
Funding Agency: BRNS

Principal Investigator: Dr Sanjib Kumar Acharyya
Acting PI - Co Investigators: Prof Sankar Dhar
Name of the Research Project: Fracture toughness test of 20MnMoNi55 steel from lower shelf to upper shelf
Project Value in lakh in INR: Rs.52.00 Lakh
Funding Agency: BRNS

Principal Investigator: Dr H Chattopadhyay
Acting PI - Co Investigators:
Name of the Research Project: Facility for Rheo pressure die casting
Project Value in lakh in INR: Rs. 6 Lakh
Funding Agency: DST

Principal Investigator: Dr Koushik Ghosh
Acting PI - Co Investigators: Prof Dipankar Sanyal
Name of the Research Project: Clad Behavior under Accident Condition
Project Value in lakh in INR: Rs. 35.9 lakh
Funding Agency: BARC, Mumbai

Annexure – III

4. A. Books/ Monographs etc. Published:
Prof. Sadhan K Ghosh

Edited Volume Published.
2. Total Quality Management in industries.

Monographs Published.
1. Green Manufacturing in India and UK SMEs, UKIERI Project

Prof. Samir Kumar Saha

Prof. Gautam Sutradhar
Book Published

**Editor**
1. Editing a Quarterly News Letter "Foundry Sambad" Published from The Institute of Indian Foundrymen in Bengali Version to educate the grass route people of Foundries.
2. Journal of Modeling and Simulation in Design and Manufacturing, Tribhuban Publications, Bhopal

**Prof Sujit Ghosal**
**Book Published**
1. Name of the book : HOTEL ENGINEERING; Oxford University Press, New Delhi, Year of publication 2011.

**Prof Achintya Mukhopadhyay**

**Prof Sudipta De**

**Prof. Prasanta Sahoo**


Dr Prakash Chandra Roy
Book Published

B. Articles Published in Journals/Conferences:
Prof Sadhan K Ghosh


Professor Simul Banerjee
Journal Paper

Conference Paper

Peer Review
- Machining Science and Technology, Taylor & Francis, 2011
- Materials and Manufacturing Process, Taylor & Francis, 2011 (2 numbers)

Publications of Prof. Simul Banerjee (1st April 2012 to 31st March 2013)
Present "h index": 3

**Prof. Sankar Dhar**


**Prof. Samir Kumar Saha**


Prof. Dipankar Sanyal


Prof. Gautam Sutradhar

3. T. Nandi, R. Behera, K. Majumdar & G. Sutradhar 'Investigation on the solidification behavior of aluminium alloy casting by using computer aided simulation software'.(Accepted in Metal Casting Technology, an International journal, Australia).

Prof. Gautam Pohit

Asish Bandyopadhyay

Sujit Ghosal


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Conference Proceedings


Prof. Buddhadeb Oraon


Prof. Sudipta De:


Prof. Pradip Kumar Pal

1. Ramesh Rudrapati, Pradip kumar Pal and Asish Bandyopadhyay “Multi - objective optimization in traverse cut cylindrical grinding process”, Published in the international journal: Advanced Materials, Manufacturing & Characterization, Volume 3, Issue 1, 2013, pp. 335 – 33

2. John Deb Barma, Asish Bandyopadhyay and Pradip Kumar Pal.: “Parametric optimization of transmission laser welding process applying Taguchi method”, Published in Advanced Materials


16. Das, Soumen; Ghosh, Prabir Kumar; Pal, Pradip Kumar and Ghosh Nabendu,” Investigation of surface finish and vibration in gear hobbing”: Abstract accepted and included in the Book of Abstracts, 4th International & 25th All India Manufacturing Technology, Design and Research Conference( AIMTDR 2012)

17. Pal, Pradip Kumar; Ghosh, Nabendu; Ghosh, Prabir Kumar and Jaiswal, Nawnit: “Surface roughness in traverse cut cylindrical grinding of phosphor bronze – some experiments and analyses”, Abstract accepted and included in the Book of Abstracts, 4th International & 25th All India Manufacturing Technology, Design and Research Conference( AIMTDR 2012) pp.565


21. Ramesh Rudrapati, Pradip Kumar Pal and Asish Bandyopadhyay, “Multi-objective optimization of traverse cut cylindrical grinding process using factorial design and desirability function approach”, International Conference on Mechanical Engineering (ICME-2013), Bangladesh University of Engineering and Technology (BUET), Dhaka, Bangladesh (Communicated)


Dr Tarun Kumar Naskar


Dr. Snehamoy Majumder


Dr Dipak Laha


Journals:


Conferences:


Dr Arghya Nandi

1. Vibration attenuation by a combination of a piezoelectric stack and a permanent magnet, A Nandi, S Neogy, S Bhaduri, H Irretier, Publication date 2012/1/1 Journal name : Shock and Vibration, Volume 19 Issue 4, Pages 719-734, Publisher IOS Press.

Dr. Sanjib Kumar Acharyya


**Dr. Himadri Chattopadhyay**


**Conferences:**


Dr. Himadri Chattopadhyay


16 Loha, C., Chattopadhyay, H. and Chatterjee, P.K. (2012), Simulation of bubbling fluidized bed using different drag models, Chemical Engineering Science, 75, 400-407


21 Simlandi, S., Barman, N. and Chattopadhyay, H. (2012), Study on rheological behavior of A356 alloy during solidification in presence of stirring, Transactions IIM, 65(6), 809-814


Conferences:
9. Bit, A., Chattopadhyay, H., Non-newtonian flows in stenosed channel, accepted for Indian Scince Congress, 3-7 January 2013
10. Nandi, T., Chattopadhyay, H, Development of flow and thermal field in wavy microchannels under inlet pulsations, accepted for Indian Scince Congress, 3-7 January 2013

Dr Prabir Kumar De
Consultancy: Fluid Transient and Noise Generation due to Valve-Slamming at Bokaro Steel Plant – Rs. 1,50,000/- (January, 2011 – May, 2011)

Dr. Nirmal Kumar Manna


b. Poster


Dr. Rana Saha


Dr B. Kundu


Sudip Simlandi

Journals Papers :


Conference Papers:


Dr Prakash Chandra Roy


International Journal Papers (1st April 2012 to 31st March 2013)


International Conference Proceedings Papers :


A. **Session Chaired / Co Chaired**: (Name of the Teacher, Type of Participation, Name of the Seminar/ Conference etc., Place, Duration).

- Session co-chaired for the session “ENERGY SYSTEM MODELLING” in International Conference on Energy Resources and Technologies for Sustainable Development (ICERTSD-2013) on February 2013 at Bengal Engineering & Science University, Shibpur, Howrah, West Bengal, INDIA

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

- Attended International Conference on Energy Resources and Technologies for Sustainable Development (ICERTSD-2013) on February 2013 at Bengal Engineering & Science University, Shibpur, Howrah, West Bengal, INDIA

Book Published


List of Publications of Dr. Koushik Ghosh

Journals:


Conferences:

a) Papers


b) Poster


LIST OF PUBLICATION

Sudipta De

Journals


Conferences:

PUBLICATIONS

DR. SAIKAT MOOKHERJEE


3. N. P. Mandal, R. Saha, S. Mookherjee and D. Sanyal, 2013, Pressure compensator design for an axial piston pump, Tans. ASME Dynamic Systems Measurements Controls, Accepted for publication (manuscript no. DS-12-1356.)

Annexure – IV

Prof Sadhan K Ghosh


5. Member of Indian Delegation in Kuala Lumpur for ISO TC 61 meeting in September 2011.

6. Reviewer and Editor: Reviewer and Editor of a number of International Journals.

7. Member, Syllabus Committee of Mechanical Engineering, West Bengal Public Service Commission.

Prof Sujit Ghosal

A few important industrial projects undertaken are as follows.

i. Carried out consultancy work related to KMC sewerage and storm water pumping system

ii. Carried out consultancy work related to design optimization of tea dryers for M/s Kilburn Engg. Ltd.

iii. Done design vetting for stability of crane for use in railbridge over Hoogly river at Naihati

iv. Designed and developed test rigs for hydraulic characterization of DI pipe manufactured by M/s Tata Metaliks at their premises at Kharagpur

v. Designed and developed test rigs for hydraulic characterization of DI pipe manufactured by M/s Balaji Industries at their premises at Durgapur

vi. Designed support system for underground GRP sewerage pipe for M/s Angerlehner, Hoch-und Tiefbau Gessellschaft mbH, Germany
vii. Designed and developed high pressure high temperature pneumatic test facility for aircraft components being installed at Air India premises, Kolkata

Prof Samir Kumar Saha

a) Interviews taken as experts
   1. Expert for Faculty Section on 22.06.11 at VSS University of Technology, Odisha.
   2. Expert Faculty Selection on 2nd July, 2011 at NIT, Aiziwal, Mizoram.
   5. Nominated Chairpersons of various Assessment Committees of National Council of Science Museums, GOI.

b) Member of National Level Committees /Other Important Assignments :
   1. Member, Engineering Accreditation Evaluation Committee of NBA, AICTE, GOI for 2 years from June 2011. Attended 7 meetings and cleared evaluation of 200 Engineering Colleges.
   3. Executive Committee Member of Central Research & Training Laboratory, NCSM, Govt. of India for 2 years from January, 2012.
   4. Governing Body Member of MCKVIE, a reputed Pvt. Engg. College for last 10 years.
   5. Member, Board of Studies & Ph.D. Committee of Mechanical Engg. of West Bengal University of Technology. Actively involved in syllabus making and Ph.D. examination till date.
   6. Member, Syllabus Committee of Mechanical Engineering, West Bengal Public Service Commission.
   8. Member, Ph.D. Research Committee of Adult, Continuing Education and Extension Deptt., JU.
   9. Convenor, Safety Committee Member of BARC/DAE projects in the Mechanical Engg. Deptt., J.U. (Project worth Rs.3 Crores).
   10. Member, Appeleate Committee, West Bengal Pollution Control Board for two years from March, 2012.

c) Reviewer of Papers :
   1. Reviewer of papers for the Journal of the Institution of Engineers, India.

Prof Asish Bandyopadhyay

1. One PG student under the supervision of Asish Bandyopadhyay, has been sanctioned an amount of Rs 50,000/- for his PG thesis work by IE(I).

Prof Swarnendu Sen

1. DAAD Research Stay, worked on “Identification of Flame Transfer Functions in Pulse Combustors” at Lehrstuhl fur Thermodynamik, Technical University, Munich during 4th July – 31st August, 2011

Prof Achintya Mukhopadhyay

Prof Prasanta Sahoo

BOOK Chapters


Dynamic Methods and Process Advancements in Mechanical, Manufacturing, and Materials Engineering, J P Davim (Ed.) IGI Global, Hershey, USA, 2012

Chapter 2: Large Amplitude Forced Vibration Analysis of Stiffened Plates under Harmonic Excitation (pages 25-61), A Mitra, P. Sahoo, K Saha

Dynamic Methods and Process Advancements in Mechanical, Manufacturing, and Materials Engineering, J P Davim (Ed.) IGI Global, Hershey, USA, 2012


RESEARCH Publications (most recent first)

2013

Referred Journals


Contribution in Conference Proceedings:

2012 (since April)

Referred Journals


Contribution in Conference Proceedings


Peer Reviewer Invitation
Invited in 2011-12 as peer reviewer in the following international journals:
Journal of Physics D: Applied Physics (IOP)
Nanotechnology (IOP)
Materials & Design (Elsevier)
International Journal of Materials, Manufacturing and Mechanical Engineering (IGI Global)
Journal of Adhesion Science and Technology (Elsevier)
International Journal of Science and Technology Education Research (Academic Journals)
International Journal of Computer Applications in Technology (Inderscience)
Journal of Vibration and Control (Sage)
Material Science and Engineering A (Elsevier)
International Journal of Solids and Structures (Elsevier)
Industrial & Engineering Chemistry Research (ACS Publications)
Journal of Mechanical Science and Technology (Springer)
International Journal of Surface Engineering and Interdisciplinary Materials Science (IGI Global)
Applied Materials & Interfaces (ACS Publications)
ISRN Tribology (Hindawi)
Indian Journal of Engineering & Materials Science (NISCAIR)

Editorial Contribution
Appointed editorial board member in International Journal of Surface Engineering and Interdisciplinary Materials Science (IGI Global, USA)
Appointed editorial board member in ISRN Tribology (Hindawi, USA)

Prof. Sudipta De
1. Visited Lund University Sweden and University of Stavanger, Norway as Invited Professor during May-June 2011.
2. Member of UGC Expert Panel for assessment of University/Institute.
3. Regular reviewer of many reputed international journals.

Dr Dipak Laha
1. Prof. J. N. D. Gupta, College of Business Administration, University of Alabama

Dr Kaushik Ghosh
List of Publications
Journals:


Conferences:

a) Papers
5. Pallab S. Mahapatra, Souvick Chatterjee, Koushik Ghosh, Nirmal K. Manna, Swarnendu Sen and Achintya Mukhopadhyay, Transient Interaction of Particles with Quiescent Water:


b) Poster


11. Sponsored Project Work Done:

Name of the Project: Clad Behaviour under Accident Conditions
Sponsor: Bhabha Atomic Research Centre, India, Mumbai, India
Worked as: Principal Investigator
Project Status: Ongoing
Cost: Rs. 35,90,700/-

Name of the Project: Modeling and Experimental Validation of Spray Formation by Disintegration of Annular Swirling Liquid Sheets for Design of Advanced Fuel Injectors for Gas Turbine Combustors
Sponsor: GATET, GTRE, India
Worked as: Co-Investigator
Project Status: Ongoing
Cost: Rs. 15,58,000/-

Name of the Project: Conjugate Heat Transfer Modeling with Gas Radiation for Gas Turbine Combustors/Afterburner Linings
Sponsor: GATET, GTRE, India
Worked as: Co-Investigator
Project Status: Ongoing
Cost: Rs. 17,01,333/-

METALLURGICAL & MATERIAL ENGINEERING

Phone : +91-33-2414-6940
Int. : 2457-2325
H.O.D : Dr. Rajib Dey
E-mail : hod@metal.jdvu.ac.in

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: 34 Nos.
ME degree in Industrial Metallurgy Students: 10 Nos.
M.Tech degree in Material Engineering Students: 18 Nos.

1. B. Number of Faculty Members: 14 Nos.


2. B. Major Research Project:

1. Title of Project/Facilities: Study on Friction stir welding of aluminium alloy to zinc coated steel sheet
   Funding and Collaborated Agency: CSIR, New Delhi
   Period: 2011-2013
   Amount (Lakh): 17.48
   Named by: Prof. T.K.Pal

2. Title of Project/Facilities: Development of High Energetic Electrode Materials and Characterization of Bioelectrochemical Fuel Cell
   Funding and Collaborated Agency: PURSE
   Period: 2010-2012
   Amount (Lakh): 14.5
   Named by: Prof. S.Paul

3. Title of Project/Facilities: Investigation of Lubricating Properties of Automotive Oil & Grease with Addition of CNT & Metal Oxide
   Funding and Collaborated Agency: Balmer Lawrie & Co. Ltd
   Period: 2007 – till date
   Amount (Lakh): 10.1 Lacs
   Named by: Prof. S.Mukherjee & Prof. G.C.Das

4. Title of Project/Facilities: Financial assistance for PG Teaching Program in Nanoscience & Technology
   Funding and Collaborated Agency: DST- Nano Mission
   Period: 2008 – till date
   Amount (Lakh): 4 Crore
   Named by: Prof. S.Mukherjee & Prof. G.C.Das

5. Title of Project/Facilities: Prepared Burden (Steel Nugget) for Solid State Reduction and subsequent Melting in EF as an Alternative Route for Steel Making
   Funding and Collaborated Agency: RINL
   Period: 2009 – till date
6. **Title of Project/Facilities:** Scientific Collaboration to jointly ... simulated nuclear reactor environment
   Funding and Collaborated Agency: BARC, Mumbai
   Period: 2009 – till date
   Amount (Lakh): 98.524 Lacs
   Named by: Prof. P.K.Mitra, Prof. M.K.Mitra Prof. S.Paul Prof. P.Majumder Dr.(Mrs.) S.Banerjee

7. **Title of Project/Facilities:** Investigation on the electron field emission from doped and functionalised carbon nano tubes.
   Funding and Collaborated Agency: UGC
   Period: 2010 – till date
   Amount (Lakh): 7 Lacs
   Named by: Prof. G.C.Das

8. **Title of Project/Facilities:** Low Cycle fatigue, Ratcheting and their interaction in two automotive grade sheet steel
   Funding and Collaborated Agency: TATA Steel Ltd
   Period: 2009-2012
   Amount (Lakh): 14.95 lakhs
   Named by: Prof. P.C.Chakraborti

9. **Title of Project/Facilities:** Investigation of deformation and damage mechanism in bare and coated automotive steel through in-situ scanning electron microscopy
   Funding and Collaborated Agency: Ministry of steel and TATA Steel Ltd
   Period: 2010 – till date
   Amount (Lakh): Rs. 363.30 lakhs
   Named by: Prof. P.C.Chakraborti

10. **Title of Project/Facilities:** Investigation of deformation and damage mechanism in bare and coated automotive steel through in-situ scanning electron microscopy
    Funding and Collaborated Agency: TATA Steel Ltd
    Period: 2012 – till date
    Amount (Lakh): Rs. 20.00 lakhs
    Named by: Prof. P.C.Chakraborti

11. **Title of Project/Facilities:** Identification of key crystallographic factors responsible for damage initiation and progression in Advanced high Strength Steels (AHSS) using ex-situ 2 dimensional (2D) Electron Back Scattered Diffraction (EBSD) Analysis
    Funding and Collaborated Agency: TATA Steel Ltd
    Period: 2012 – till date
    Amount (Lakh): Rs. 20.00 lakhs
    Named by: Prof. P.C.Chakraborti

12. **Title of Project/Facilities:** Processing of Titanium bearing magnetite for the recovery of Metal values
    Funding and Collaborated Agency: Ministry of Steel SDF
    Period: 2010-till date
Amount (Lakh): Rs. 69.6 lacs
Named by: Prof. S.Mukherjee & Dr. R.Dey

13. Title of Project/Facilities: Energy Conservation through Archaeological Practices
    Funding and Collaborated Agency: DST-PURSE
    Period: New Delhi 2009 on
    Amount (Lakh): 3.5 lakh
    Named by: Prof. P.K.Datta

14. Title of Project/Facilities: Recovery of Precious & Scattered Metals from e-waste
    Funding and Collaborated Agency: UGC-MRP
    Period: 2012-15
    Amount (Lakh): 11.2 lakh
    Named by: Prof. S.Mukherjee & Dr.(Mrs.) M.G.Chaudhuri

15. Title of Project/Facilities: Synthesis of MgO-CNT Refractry for Steel Making
    Funding and Collaborated Agency: SAIL-RDCIS
    Period: 2013-15
    Amount (Lakh): 24 lakh
    Named by: Prof. S.Mukherjee /Prof.M.K.Mitra/ Prof. G.C.Das / Prof. K.K.Chattopadhyay

16. Title of Project/Facilities: Development of coated electrode introducing nano-particles for welding/repair welding of Austempered Ductile iron
    Funding and Collaborated Agency: DST, New Delhi
    Period: 2013-2016
    Amount (Lakh): 24.91
    Named by: Prof. T.K.Pal (on going)

17. Title of Project/Facilities: Development of suitable gas metal arc welding (GMAW) procedure for high performance weld joints of modified ferritic stainless steel and low-nickel austenitic stainless steel
    Funding and Collaborated Agency: Ministry of Steel and Titagarh wagons Ltd.
    Period: 2012-2015
    Amount (Lakh): 79.86
    Named by: Prof. T.K.Pal (on going)

18. Title of Project/Facilities: Hydrogen Coreduction of Metal Oxides
    Funding and Collaborated Agency: DST-PURSE
    Period: 2009 onwards
    Amount (Lakh): Rs. 4 lakh
    Named by: Prof. Dinabandhu Ghosh

19. Title of Project/Facilities: Capture and Analyze: The Behavioural Abnormalities of Children with Special Need Through Skill Development Programme
    Funding and Collaborated Agency: UGC
    Period: 2009 onwards
    Amount (Lakh): 0.5 Lakhs
    Named by: Dr. R.Dey & Dr. P. S. Bhattacharya
20. **Title of Project/Facilities:** Prepared Burden (Steel Nugget) for Solid-state Reduction and Subsequent Smelting in Electric Furnaces  
**Funding and Collaborated Agency:** RINL  
**Period:** 2010 Onwards  
**Amount (Lakh):** 15.81 Lakhs  
**Named by:** Dr. R. Dey, Prof. M. K. Mitra, Prof. S. Mukherjee, Prof. G. C. Das

21. **Title of Project/Facilities:** Identification of key crystallographic factors responsible for damage initiation and progression in Advanced High Strength Steels (AHSS) using ex-situ 2-dimensional (2D) Electron Back Scattered Diffraction (EBSD) analysis  
**Funding and Collaborated Agency:** TATA Steel Ltd  
**Period:** 2012 – till date  
**Amount (Lakh):** Rs. 20.00 lakhs  
**Named by:** Prof. P. C. Chakraborti

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

   **Dr. (Mrs.) S. Banerjee:**
   An invited technical talk on Heat treatment on Steels at BITM, Kolkata on Feb 10, 2012 for the National Workshop organized by IIM, Kolkata Chapter.

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

   **Prof. S. Mukherjee**

   **Dr. (Mrs.) S. Banerjee**
   1. Confocal microscopy application and development, 21st September, 2012, at Kolkata  
   2. Metallix-2013 at Kolkata.

3. **C. Seminar/Workshop/Conference/Symposium Organized:**

   1. **Title:** National Symposium on “Corrosion in Oil & Gas Sector - Problems & Mitigation” : Metallix – 12 National Student Metallurgists' Meet  
      **Organiser:** Department of Metallurgical & Material Engineering, Jadavpur University  
      **Type of Seminar:** National  
      **Place:** Jadavpur University  
      **Year:** 2012

   2. **Title:** Workshop on Advancement in Welding Technology  
      **Organiser:** IIW Kolkata Branch & Department of Metallurgical & Material Engineering  
      **Type of Seminar:** National  
      **Place:** Jadavpur University  
      **Year:** 2012

   3. **Title:** National Symposium on “Construction Steel for the Twenties” : Metallix – 13 National Student Metallurgists' Meet
3. Title: National Seminar on "Iron & Steel making in India : Process, Opportunities & Threats"
Organiser: Department of Metallurgical & Material Engineering, Jadavpur University
Type of Seminar: National
Place: Jadavpur University
Year: 2013

3. E. Orientation Courses/Refresher Courses Organized:

Prof. S. Mukherjee

UGC-ASC Course
i) Instrumental Analysis 2013
ii) Nanoscience & Technology, 2013

4. A. Books/Monographs etc. Published:

4. B. Articles Published in Journals:

Prof. P.K. Mitra

Prof. S. Paul

International:
- Biocompatibly Coated 304 Stainless Steel as Superior Corrosion Resistant Implant Material to 316L Steel, Subir Paul and Chandranath Mandal, , Journal Material Engineering and Performance,
Mitigation of Mild steel Corrosion in Acid by Green Inhibitors : Yeast, Pepper, Garlic and Coffee , Subir Paul and Bikash Kar, ISRN Corrosion, Volume 2012 (2012), Article ID 641386, 8 pages doi:10.5402/2012/641386

Development and Characterization of Electrodeposited Ni-Co and Ni-Co-Fe Alloy on Al Electrodes Materials for Methyl Alcohol Fuel cell, Subir Paul and Sk Naimuddin, Material Engineering and Performance, accepted for publication, 2013


National:

- DEVELOPMENT OF HIGH ENERGETIC NANOPOROUS ELECTRODE BY CONTROLLED ANODIZATION OF ALUMINUM, Subir Paul and Rakib Baidya, Research and Reviews in Electrochemistry, 2013, vol.4, No.1, pp1-6

Prof. G.C.Das


Prof. S. Mukherjee:-


2. Synthesis and Characterization of different structured ZnO nanomaterials through Polyethelene Glycol along with antibacterial activity study by direct attachment to the EColi Dh 5 and saureus ATCC 25923 bacteria cell membrane, P. Bhadra, S. Mukherjee, R. Dey, G.C. Das, M.K. Mitra, JEST 2012 Acepted for publication.


**Dr. R.Dey:**


5. Studies on the corrosion characteristics of a few coated reinforced TMT bars used in concrete structure" Dhurjyoti Banerjee, Buddhadeb Duari, Rajib Dey, Bimal Chaudhuri, D Sarkar, Paintindia Vol LX II - No 4, April 2012, Page 49 – 53.

6. "Study of the Release Mechanism of Terminalia Chebula Extract from Nanoporous Silica Gel" Suparna Chakraborty, Manoj Kumar Mitra, Mahua Ghosh Chaudhuri, Biswanath sa, Satadal Das, Rajib Dey, Applied Biochem Biotechnol DOI 10 1007/s12010-012-9916-0, Received 29/5/12, Accepted 3/10/12, Published Online 18/10/12.


8. Synthesis and Characterization of different structured ZnO nanomaterials through Polyethelene Glycol along with antibacterial activity study by direct attachment to the EColi Dh 5 and saureus


Prof. A.K.Pramanik

Prof. P.K.Datta
1. P.K.Datta-Aesthetics of Dhokra Castings (Dhokra Silper Charukala) (2012), Lokashruti (J. of Folk and Tribal Art & Culture Centre, Govt. of West Bengal

Prof. Dinabandhu Ghosh:-

International Publications:

National Publications:

Prof. T.K.Pal


Prof. S.K.Ray(Steel Chair Professor)


Prof. M.K.Mitra


11. Synthesis and Characterization of different structured ZnO nanomaterials through Polyethelene Glycol along with antibacterial activity study by direct attachment to the EColi Dh5 and saureus ATCC 25923 bacteria cell membrane, P.Bhadra, S.Mukherjee, R.Dey, G.C.Das, M.K.Mitra, IJEST 2012 Accepted for publication.


14. “Study of the Release Mechanism of Terminalia Chebula Extract from Nanoporous Slica Gel”Suparna Chakraborty, Manoj Kumar Mitra, Mahua Ghosh Chaudhuri, Biswanath sa, Satadal Das, Rajib Dey, Applied Biochem Biotechnol DOI 10 1007/s12010-012-9916-0, Received 29/5/12, Accepted 3/10/12, Published Online 18/10/12


18. Precipitation behavior investigated through positron annihilation in Sc-doped Al-6Mg followed by the effects of Zr-addition, R.Sen, P.M.G.Nambisan, M.K.Mitra, M.K.Banerjee – Phys Proc,
24. Energy transfer from polyaniline to chlorophyll a supramolecular assembly in nano-hybrid, J.S.Manna, D.Das, M.K.Mitra, Jl Phys Chem C, 2013, Accepted for publication, DOI: 10.1021/jp4014288, pub date (web) 18 Apr

Prof. P.C.Chakraborti:-

6. Major Achievements:
Selected as 'Centre of Excellence' under TEQIP Scheme on "Phase Transformation and Product Characterization"

PHARMACEUTICAL TECHNOLOGY
Phone : + 91-33-2414-6967
Int. : 2457-2274
H.O.D : Prof. Tanmoy Bera
E-mail : hod@pharma.jdvu.ac.in
1. A. **Courses Offered:**

<table>
<thead>
<tr>
<th>Name of Course</th>
<th>Duration of the Course (in year)</th>
<th>No. of Students Enrolled</th>
</tr>
</thead>
<tbody>
<tr>
<td>B. Pharm</td>
<td>4</td>
<td>70</td>
</tr>
<tr>
<td>M. Pharm</td>
<td>2</td>
<td>25+ QIP</td>
</tr>
<tr>
<td>Ph. D.</td>
<td></td>
<td>12</td>
</tr>
<tr>
<td>M. Pharm in clinical Pharmacy &amp; Pharmacy Practice</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

1. B. **No. of Faculty Members:**

- Professor: 9
- Associate Professor: 8
- Asst. Professor: 2

2. A. **Departmental Research Activities: (Broad Areas)**

B. **Major Research Projects:**

- Name of the Teacher: Dr. Kunal Roy
- Name of the Project: Development of AChE-inhibitor for Alzheimer’s Disease- Screening Designing Synthesis and Biological validation using Chemical Library & North-East Indian Plants
- Funding Agency: Department of Biotechnology (Twinning Programme)
- Sanctioned Date: 2012

- Name of the Teacher: Dr. Kunal Roy
- Name of the Project: In silico modeling of ecotoxicological hazards of chemicals using advanced chemometric tools
- Funding Agency: Council of Scientific and Industrial Research
- Sanctioned Date: 2012

- Name of the Teacher: Dr. Kunal Roy
- Name of the Project: Exploring Quantitative Structure-Activity Relationships (QSARs) of Selected Classes of Antimalarial Compounds for Development of Predictive Models
- Funding Agency: UGC
- Sanctioned Date: 2011

- Name of the Teacher: Dr. Biswajit Mukherjee
- Name of the Project: Insulin like growth factor II (IGF II) phosphorothioate antisense oligomers in search for a potential future drug of liver cancer
- Funding Agency: Indian Council of Medical Research
- Sanctioned Date: 2010

- Name of the Teacher: Dr. Biswajit Mukherjee
- Name of the Project: Anti diabetic potential of Apigenin- pharmacokinetics and mechanistic approach and correlation with hepatocellular carcinoma (Individual: C.M. Hossain)
- Funding Agency: Department of Science and Technology
- Sanctioned Date: 2010

Name of the Teacher: Dr. Biswajit Mukherjee
Name of the Project: Preparation and invitro evaluation of Phosphatidylethanolamine conjugated Tamoxifen citrate loaded nanoparticles for the breast cancer therapy (Individual : R. Majhi)
Funding Agency: Indian Council of Medical Research
Sanctioned Date: 2011

Name of the Teacher: Dr. Biswajit Mukherjee

Name of the Project: Development of nano-scale Liposomal targeted delivery of an anti cancer agent (Individual : Bhawani Shankar Satapathy)
Funding Agency: Department of Science and Technology
Sanctioned Date: 2011

Name of the Teacher: Dr. Biswajit Mukherjee

Name of the Project: Tamoxifen Citrate loaded in nanoliposomes tagged with monoclonal antibody for targeting in breast cancer (Individual : Niladri Shekahr De)
Funding Agency: Indian Council of Medical Research
Sanctioned Date: 2011

Name of the Teacher: Dr. Biswajit Mukherjee

Name of the Project: Pulmonary delivery of nanoparticles of an antifungal agent using nebulizer or dry powder inhaler
Funding Agency: Department of Biotechnology
Sanctioned Date: 2012

Name of the Teacher: Dr. Tanmoy Bera

Name of the Project: Preparation, characterization and evaluation of polymersome nanoparticles, based on preferential macrophage membrane recognition for resistant antileishmanial drug delivery
Funding Agency: Indian Council of Medical Research
Sanctioned Date: 2012

Name of the Teacher: Dr. Pulok Kumar Mukherjee

Name of the Project: Synergistic interaction of anti-bacterial natural products from medicinal plants of North East India: An effort in developing multi drug resistance natural antibiotic
Funding Agency: Department of Biotechnology (Twinning Programme)
Sanctioned Date: 2011

Name of the Teacher: Dr. Pulok Kumar Mukherjee

Name of the Project: Novel Drug Discovery and Development Approaches For The Pharmacological Immune Enhancers In Immune Compromised Individuals
Funding Agency: Dept. of Science & Technology (DST): India-Brazil-South Africa (IBSA) Trilateral Cooperation Program
Sanctioned Date: 2010

Name of the Teacher: Dr. Tuhinadri Sen

Name of the Project: Novel Drug Discovery and Development Approaches for the Pharmacological Immune Compromised Individuals
Funding Agency: IBSA (DST India Internationalcooperation)
Sanctioned Date: 2011

Name of the Teacher: Dr. Amalesh Samanta
Name of the Project: Experimental studies on the efficacies of natural materials as binder, emulgent, prebiotics and antimicrobials obtained from a single plant Odina woodier (Family: Anacardiaceae)
Funding Agency: UGC
Sanctioned Date: 2012

Name of the Teacher: Dr. Tapan Kumar Maity
Name of the Project: Design, Synthesis, and Pharmacological Screening of Hybrid Urea/Thiourea Derivatives as Potential Antihyperglycemics
Funding Agency: Counsil of Scientific and Industrial Research
Sanctioned Date: 2012

3. A. Invited Lecturers Delivered/ Session Chaired:
National:

- Dr. Tanmoy Bera- Delivered invited lecture on Modern Trends to combat life threatening diseases- National Seminar on "Strategies to combat diseases threatening the Nations health"- Gupta College of Technological Sciences, Asansol- 2013 (One day).
- Dr. Pulok Kumar Mukherjee- Invited Speaker- Panacea 2012-5th Natural Products India- World Centre, Mumbai- 2012
- Dr. Biswajit Mukherjee- Delivered Invited Lecturer on Nanoparticles as Transdermal Drug Delivary Systems- National Seminar on Polymer research in drug delivery- Gupta College of Technological Sciences, Asansol- 2012 (One day).
- Dr. Biswajit Mukherjee- Delivered Invited Lecturer on Nanoparticles as Drug Delivary Systems for Anti fungal drug- National Seminar on drug delivery- Dr. B. C. Roy College of Pharmacy and Allied Health Sciences- 2012 (One day).
- Dr. Biswajit Mukherjee delivered an invited lecture on a International Seminar on ‘Pharmaceutical Sciences: A Global Approach” at Department of Pharmacy, University of Sciences and Technology, Chittagong (USTC), on 26th February, 2013.
- Dr. Biswajit Mukherjee delivered an invited lecture on a National Seminar on ‘Recent Advances in Pharmaceutical research” at College of Pharmaceutical Sciences, Puri, on 13th April, 2013.
- Dr. Biswajit Mukherjee delivered three guest lectures for M.Parm courses (Clinical Pharmacy & Pharmacy practice) at Department of Pharm. Tech, Jadavpur University, Kolkata.
- Dr. Biswajit Mukherjee delivered a guest lecture at Department of Chemistry, Aliah University, Kolkata in the autumn Semester 2013.
- Dr. Biswajit Mukherjee delivered a guest lecture at Department of Chemistry, Aliah University, Kolkata in the spring Semester 2013.

3. B. Seminar/ Workshop/ Conference/ Symposium Attended:
S. Mondal, P. Ghosh, S. Ghosh, T. Bera- Generation of adenosine triphosphate in Leishmania donovani amastigote forms- National Seminar on "Strategies to combat diseases threatening the Nations health”- Gupta College of Technological Sciences, Asansol- 2013

J. J. Roy, S. Mondal, S. Das, T. Bera- ATP Formation in Leishmania Donovani amastigote through substrate level phosphorylation- National Seminar on "Strategies to combat diseases threatening the Nations health”- Gupta College of Technological Sciences, Asansol- 2013


B. Mukherjee, M. K. Ghosh- Treatment of Antisense Insulin like growth factor II controlling the development of hepatocellular carcinoma in rats- The International Liver Congress TM 2012- 47th annual meeting of the European Association for the study of the Liver (EASL)- Barcelona, Spain- 2012

3. C. Orientation Courses/ Refresher Courses Organized:

- Name of the Teacher: Dr. Biswajit Mukherjee
- Title of the Course: AICTE sponsored QIP refresher course on “Future direction of Pharmaceutical Studies and Research”.
- Duration: One Month, 27th June to 24th July 2012
- Place: Department of Pharmaceutical Technology, Jadavpur University, Kolkata.

- Name of the Teacher: Dr. Biswajit Mukherjee
- Title of the Course: AICTE sponsored QIP refresher course on “Innovation and Excellence in Pharmaceutical Science”.
- Duration: 2nd July to 29th July 2013
- Place: Department of Pharmaceutical Technology, Jadavpur University, Kolkata.

4. A. Books/ Monographs etc. Published

Dr. Pulok Kumar Mukherjee-


Dr. Biswajit Mukherjee-


B. Articles Published in Journals:


Sushil Kumar Chaudhary, Niladri Maity, Santanu Bhadra, Neelesh Kumar Nema, B. P. Saha. **Pulok K. Mukherjee** Angiotensin Converting Enzyme inhibition activity from the essential oils of Indian spices *Natural Product Communications* 2013, 8 (5), 671 - 672


Mukherjee, H., Ojha, D., Bag, P., Chandel, H.S., Bhattacharyya, S., Chatterjee, T.K., **Mukherjee, P.K.**, Chattopadhyay, D. Anti-herpes virus activities of Achyrhanthes aspera: An Indian ethnomedicine, and its triterpene acid, Microbiological Research, 168(4) 2013, 238-44.


Santanu Bhadra, Pulok K. Mukherjee, A. Bandyopadhyay, Cholinesterase inhibition activity of Marsilea quadrifolia Linn. an edible leafy vegetable from West Bengal, India, Natural Product Research, 2012, 26 (16) , 1519-1522


Probir Kumar Ojha, Indrani Mitra, Supratik Kar, Rudra Narayan Das, Kunal Roy. Lead Hopping for PfDHODH Inhibitors as AntimalarialsBased on Pharmacophore Mapping, Molecular Dockingand


Samanta, Amalesh; Chattopadhyay, Debprasad; Sinha, Chandrima; Dusal Jana, Ananda; Ghosh, Soma; Mandal, Anurup; Banerjee, Ananya; Hendricks, Oliver; B. Christensen, Jorn; Elisabeth Kristiansen, Jette Evaluation of In Vivo and In Vitro Antimicrobial Activities of a Selective Serotonin Reuptake Inhibitor Sertraline Hydrochloride Anti-Infective Agents, 2012, 10(2), 95-104.


Dewanjee, S., Gangopadhyay, M., Sahu, R., Karmakar, S.. Cadmium induced pathophysiology: Prophylactic role of edible jute (Corchorus olitorius) leaves with special emphasis on oxidative stress and mitochondrial involvement. Food and Chemical Toxicology. 2013, 60,188-198.


Sahu, R., Dewanjee, S., Gangopadhyay, M.. Bioproduction and optimization of Rosmarinic acid production in *Solenostemon scutellarioides* through media manipulation and conservation of high yielding clone via encapsulation. *Natural product Communications*. 2013 (Accepted).

Dewanjee, S., Gangopadhyay, M., Sahu, R.. Cadmium induced pathophysiology: Prophylactic role of edible jute (*Corchorus olitorius*) leaves with special emphasis on oxidative stress and mitochondrial involvement. *Food and Chemical Toxicology*. 2013, 60, 188-198.


Dewanjee, S., Sahu, R., Karmakar, S., Gangopadhyay, M.. Toxic effects of lead exposure in Wistar rats: Involvement of oxidative stress and the beneficial role of edible jute (*Corchorus olitorius*) leaves. *Food and Chemical Toxicology*. 2013, 55, 78-91.


Dipak Kumar Nayak, Kamal Krishna Halder, Rinku Baishya, Tuhinadri Sen, Partha Mitra, Mita Chatterjee Debnath. Tricarbonyltechnetium(l) and tricarbonylrhenium(l)complexes of amino acids: crystal and molecular structure of a novel cyclic dimeric Re(CO)3-amino acid complex
comprised of the OON donor atom set of the tridentate ligand. Dalton Transactions, 2013, 42, 13565-13575


5. Collaborative Programme:

Dr. Biswajit Mukherjee jointly with Dr. G C Majumder- Anti- Sticking factor from caprin epididymal plasma: Biochemical identity, role in sperm function and tumour biology with special reference to metastasis- DBT- 2010- 2013.

Dr. Biswajit Mukherjee jointly with Dr. Bhaskar Majumder- Pulmonary delivery of nanoparticles of an antifungal agent using nebulizer or dry powder inhaler- DBT- 2012- 2014.

Dr. Kunal Roy with NEHU, Shillong -Development of AChe-inhibitor for Alzheimer s Disease- Screening Designing Synthesis and Biological validation using Chemical Library & North-East Indian Plants- DBT (Twinning Programme)- 2012- 2015

6. Major Achievements:

Dr. Kunal Roy recipients of Marie Curie International incoming Fellowship 2012.

Dr. Biswajit Mukherjee is Section Editor of Encyclopedia of Metalloproteinase, by Springer.

7. Editor/ Editorial Board Members of International/ National Peer Reviewed Journals:

Dr. Kunal Roy

- Associate Editor, Molecular Diversity (Springer) (http://www.springeronline.com/journal/11030/) [Impact Factor 2.861 (2012)]
- Guest Editor, Special Issue of Molecular Diversity (http://www.springeronline.com/journal/11030/) on “Topological Descriptors in Drug Design and Modeling Studies” [Vol. 8, No. 4, 2004]

Dr. Pulok Kumar Mukherjee-

- Associate Editor, J. Ethnopharmacology, International journal on botanical research, published by Elsevier Science, the Netherlands 2003 onwards.
- Guest editor of Indian Journal of Traditional Knowledge, special issue on “Traditional knowledge of the Northeast India”, January, 2009 published from, National Institute of Science Communication and Information Resources [NISCAIR], CSIR, New Delhi.
- Guest editor of Drug Information Journal, special issue on “Natural Health Products”, September, 2010 published from, Drug Information Association [DIA], Philadelphia, USA.
• Member of the Editorial Board of *International Journal of Chinese Herbal Medicine (CHM)*, an International Journal published by Institute of Medicinal Plant Development (IMPLAD), Chinese Academy of Medical Sciences (CAMS), Beijing, P.R. China, 2008 onwards

• Member of the Editorial Board of *J. Complementary and Integrative Medicine*, an International journal published by The Berkeley Electronic Press, 2008 onwards

• Member of the Editorial Board of *J. Oriental Pharmacy and Experimental Medicine [OPEM]*, an International journal published by Springer, Institute of Oriental Medicine, South Korea, 2008 onwards

• Member of the Editorial Board of *J. Natural Remedies [JNR]*, an Indian journal published by Natural Remedies, Bangalore 2003 onwards

• Member of the Editorial Board of *J. Pharmaceutical Research*, an Indian journal published by Krupanidhi College of Pharmacy, Bangalore, 2008 onwards.

• Member of the Editorial Board of *J. Pharmaceutical Education*, an Indian journal published by Association of Pharmaceutical Teachers of India [APTI].

• Member of the Editorial Board of *Indian Journal of Traditional Knowledge [IJTK]*, a journal published by National Institute of Science Communication & Information Resources, CSIR, New Delhi 2008 onwards.

• Member of the Editorial Board of *Medicinal and Aromatic Plant Abstracts [MAPA]*, a journal published by National Institute of Science Communication & Information Resources, CSIR, New Delhi. 2008 onwards

• Member of the Editorial Board of *Journal of Health Research*, an international journal in the field of health bio sciences, published from Chulalongkorn University, Bangkok, Thailand. 2008 onwards

• Member of the Editorial Board of *American Journal of Plant Sciences (AJPS)*, Scientific Research Publishing, USA. 2008 onwards

Dr. Biswajit Mukherjee-

• Associate Editor, *International Journal of Pharmaceutical Science and Technology*, ISSN No.: 0975-0525.

• Editorial Board Member, *Lipid Insights* (France).

**POWER ENGINEERING**

(SALT LAKE)

Phone : + 91-33-2335-5813
Fax : 91-33-2335-7254
Int. : 6159
H.O.D. : Dr. Mousumi Basu
E-mail : hod@power.jusl.ac.

1. A. Courses Offered:
Bachelor of Power Engineering: 4 Years, 8 Semesters, 45 students in each batch
Master of Power Engineering: 2 Years, 4 Semesters, 18 students in each batch
PhD(Engg.):

1. **Number of Faculty Members**:
   11 Full time faculty members (Professors: 4, Associate Professor: 4, Assistant Professor: 3)

2. **Areas of Research Activities**
   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, alternative energy/distributed generation and smart grid/hybrid renewable energy systems, 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.

   B. **Major Research Projects**:
   Departmental / Individual along with the names of Co-ordinator(s)/Investigator(s):
   Departmental Research Scheme (DRS) under UGC Special Assistance Programme
   Co-ordinator: Ranjan Ganguly
   Dy. Co-ordinator: Apurba K. Santra
   Name of the Project: Distributed Power Generation
   Funding Agency: University Grants Commission
   Departmental / Individual along with the names of Co-ordinator(s)/Investigator(s):
P.I. : Amitava Datta
C.I. : Ranjan Ganguly
Name of the Project: 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
Funding Agency: Gas Turbine Research Establishment, Govt. of India, under GATET scheme

Departmental / Individual along with the names of Co-ordinator(s)/Investigator(s):
P.I. : Amitava Datta
C.I. : Ranjan Ganguly
Name of the Project: Modeling and Experimental Validation of Spray Formation by Disintegration of Annular Swirling Liquid Sheets for Design of Advanced Fuel Injectors for Gas Turbine Combustors
Funding Agency: Gas Turbine Research Establishment, Govt. of India, under GATET scheme
Departmental / Individual along with the names of Co-ordinator(s)/Investigator(s) : P.I.: Bhimsen Tudu
Name of the Project : Techno-economic analysis of the stand-alone renewable hybrid energy system
Funding Agency : University Grants Commission under JU Innovative Research Program

Departmental / Individual along with the names of Co-ordinator(s)/Investigator(s) : P.I.: Ranjan Ganguly C.I.: Amitava Datta
Name of the Project : Design and characterization of thermomagnetic pump for microfluidic applications
Funding Agency : Board of Research in Nuclear Sciences (BRNS)

Departmental / Individual along with the names of Co-ordinator(s)/Investigator(s) : P.I.: Debashis Palit
Name of the Project : Constrained Optimal Bidding Strategy in Deregulated Electricity Market” under J.U Innovative Research Scheme
Funding Agency : University Grants Commission under JU Innovative Research Program

3. A. **Invited Lectures Delivered / Sessions Chaired :**
Name of the Teacher: Amitava Datta and Ranjan Ganguly
Type of Participation (Invited Lecture / Session Chair): Industrial Training on "Thermal Aspects of Power Plant Engineering"
Name of the Seminar/Conference: Steam Generator, Combustion, Power Plant Cycles, Thermodynamic Analyses of Power Cycles
Place: Adani Power Limited, Gujarat

Name of the Teacher: Ranjan Ganguly
Type of Participation (Invited Lecture / Session Chair): Invited Lecture on “Harnessing Magnetic Nanoparticles for Biomedical Applications”
Name of the Seminar/Conference: National Conference on Advances in Simulation and Optimization Techniques in Mechanical Engineering
Place: National Metallurgical Laboratory, Jamshedpur
Duration: March 5, 2013

Name of the Teacher: Ranjan Ganguly
Type of Participation (Invited Lecture / Session Chair): Invited Lecture on “Magnetic Particles-based Microfluidics – Activities in Jadavpur University”
Name of the Seminar/Conference: 2nd Indo UK Workshop on Biomicrofluidics and Microscale Bioengineering
Place: IIT Kharagpur, University of Southampton and JU
Duration: December 9, 2012

Name of the Teacher: Amitava Gupta
Type of Participation (Invited Lecture / Session Chair): Invited talk on “Network Control Systems”
Name of the Seminar/Conference:
Place: University of Rostock
Duration: August, 2012

Name of the Teacher: Amitava Gupta
Type of Participation (Invited Lecture / Session Chair): Invited Lecture on “Biomass Gasification as an Alternative Energy Resource in Distributed Power Generation and as Kitchen Fuel”
Name of the Seminar/Conference: International Conference of Energy Resources and Technologies for Sustainable Development
Place: BESUS, Howrah
Duration: 7-9 February, 2013

Name of the Teacher: Amitava Gupta
Type of Participation (Invited Lecture / Session Chair): Invited Lecture on “Emission of Combustion Generated Nano-sized Carbon Particulates from Gasoline Engines”
Name of the Seminar/Conference: 1st KIIT International Symposium on Advances in Automotive Technology
Place: Bhubaneswar, Orrisa
Duration: 11-12 January, 2013

Name of the Teacher: Amitava Gupta
Type of Participation (Invited Lecture / Session Chair): Session Chair for the session “GT Operability”
Name of the Seminar/Conference: ASME 2012 Gas Turbine India Conference
Place: Mumbai
Duration: 1 December, 2012

B. Seminar / Workshop / Conference / Symposium Attended:
Name of the Teacher: Apurba Kumar Santra
Name of the Seminar: ‘International Conference on Energy Resources & Technologies for Sustainable Development (ICERTSD),
Place: BESU, Howrah, INDIA
Duration: Feb 07-09, 2013

Name of the Teacher: Bhimsen Tudu
Title of the Paper Presented: (1) Techno-Economic Feasibility Analysis of Hybrid Renewable Energy System using Improved version of Particle Swarm Optimization (2) A New Improved Self-adaptive Particle Swarm Optimization Technique for Economic Load Dispatch
Name of the Seminar: 3rd International Conference on Swarm, Evolutionary and Memetic Computing (SEMCCO 2012) and Fuzzy and Neural Computing Conference (FANCCO 2012)
Place: Siksha ‘O’ Anusandhan University, Bhubaneswar, Odisha, India
Duration: 20th – 22nd December, 2012

Name of the Teacher: Gargi Konar
Title of the Paper Presented: (1) Simulation of Magnetic Flux Distribution of Stator and Rotor Coil of Superconducting Air Cored Wind Turbine Generator using COMSOL Multiphysics (2) Simulation of Flux Density in a Hybrid Coil SMES using COMSOL Multiphysics
Name of the Seminar: Proceedings of the 2012 COMSOL Conference
Place: Bangalore, India  
Duration: Nov 2-3, 2012  

Name of the Teacher: Ranjan Ganguly  
Title of the Paper Presented:  
(1) "Influence of microchannel geometry ... field flow fractional device“  
(2) "Transient response of ferrofluid plug-driven micropump“  

Name of the Seminar:  
13th International Conference on Magnetic Fluids  
Place: NPL, New Delhi  
Duration: 7-11 January, 2013  

D. Orientation / Refresher Courses Attended:  
Name of the Teacher: Bhimsen Tudu  
Title of the Course: Short term course on "Smart Grid"  
Place: EEE dept of BIT-Mesra, Ranchi  
Duration: 7th - 9th March, 2013  

B. Articles Published in Journals:  


5. **Collaborative Programmes**:
   1. Collaborated with Chemistry Division of UGC-DAE Consortium for Scientific Research, Kolkata Centre for research carried out on Carbon Nanoparticles in Flames and Engine exhaust – Prof. Amitava Datta.
   2. Collaborative research with Prof. Dr. Steffen Hardt of the Center of Smart Interfaces, T.U. Darmstadt, Germany, on Magnetic particle transport at the interfaces – Dr. Ranjan Ganguly.
   3. Collaboration with Prof. Ishwar K. Puri, Virginia Tech, USA, on Biomedical applications of magnetic particles – Dr. Ranjan Ganguly
   4. Collaborated with Prof. Salem Hasnaoui of ENIT Tunis within the scope of Indo-Tunisian bilateral Program-Prof. Amitava Gupta
   5. Collaborated with Prof. Peter Luksch of Universitaet Rostock, Germany, in the area of Distributed Real-time Systems.

6. **Major Achievements**:
   1. Dr. K. K. Mandal has served as Member of Editorial Board for IJSCE, International Journal of Soft Computing and Engineering
   2. Dr. K. K. Mandal has served in the Editorial Advisory Board Member, International Journal of Engineering and Innovative Technology (IJIEIT).
3. **Prof. Amitava Datta** has served as Member in the Executive Committee of the Combustion Institute, Indian Section.

4. **Prof. Amitava Datta** has served as Member, SERC School Planning Committee in Combustion constituted by Department of Science and Technology.

5. **Prof. Amitava Gupta** has served as Research Ambassador of the German Academic Exchange Service (DAAD).

6. **Prof. Amitava Gupta** was awarded a special grant for German Research Alumni by Alexander von Humboldt Foundation for a short research stay at the Universitaet Rostock, Germany along with Doctoral student Soumya Dasgupta, September 2012.

7. **Prof. Amitava Gupta** has been nominated as University Nominated Member in the Board of Studies(Power Engg.) for GMR Institute of Technology, Rajam, Andhra Pradesh, by JNTU Kakinada.

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**PRINTING ENGINEERING**  
(SALT LAKE)

Phone : + 91-33-2335-0408  
Int. : 6189  
H.O.D. : Prof. Arun Kiran Pal  
E-mail : hod@print.jusl.ac.in

1. **A. Courses Offered:**
   - BE (Printing), 4 years, intake 25+2+Lateral Entry in 2nd year
   - M E in Printing Engineering & Graphic Communication, 2 years, intake 10, 07 students pursuing
   - Ph. D. (Engineering), presently 6 students registered

2. **B. No. of Faculty Members:** 7 full time, 5 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) “Modernization of KMC Press: DPR” under the co-ordinatorship of Prof. Dr. A.K.Pal & Dr. K.C.Paul funded by KMC, Govt. of W.B

4. **Publications (During 2012-13) in International Journals and Conferences:**

   **International Journals:**

**International Conferences:**


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 Indian Institute of Packaging, Kolkata regarding ‘PG Diploma in Packaging Technology and M.Tech 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 and Jadavpur University.

   - Prof. Dr. Arun Kiran Pal is acting as expert member of Curriculum & Syllabus Committee for “Diploma in Packaging Technology” by Govt. of West Bengal.

   - Dr. K.C.Paul is acting as a expert member of Technical Expert Committee of KMC, Govt. of West Bengal.

   - Prof. Dr. A.K.Pal has served AICTE, UGC & UPSC as expert member and Adviser.

   - Dr. K. C. Paul is acting as expert member of Task Force of IIP, Mumbai for formulating the syllabus & curriculum of B.Tech and M.Tech in Packaging and Applied Management Science.

   - “M. Tech in printing Engineering & Graphic Communication” course started & received AICTE approval

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**Production Engineering**

Phone : + 91-33-2414-6153
Int. : 2457-2319
H.O.D. : Dr. Biswanath Doloi
E-mail : hod@production.jd vu.ac.in
1. **Courses Offered:**
   a) Bachelor of Production Engineering: 4 - years, No. of Students -44
   b) Master of Production Engineering: -2 years , No. of Students-20
   c) PhD(Engg)

1. **Number of Faculty Members:** 14 (Fourteen)

2. **Area of Research Activities:**

3. **Invited Lectures Delivered/ Sessions Chaired:**
   1) Prof. Bijan Sarkar was invited by to deliver lecture on "Relevance of Swami Vivekananda's thoughts in India today" organised by Prafulla Chandra College, 23/49, Gariahat Road, Kolkata-700 029 on 9th March 2013
   2) Prof. Bijan Sarkar has presided over a session on "Swami Vivekananda Through Contemporary Eyes" as a part of 6th Biennial International Conference of IAAPS organised by Department of South & Southeast Asian Studies, Calcutta University on 18th December 2012
   3) Prof. Bijan Sarkar was invited at a workshop on "VALUE EDUCATION" organised by MCKV Institute of Engineering, Lilulah, Howrah-711 204 on 21st November 2012
   4) Prof. Bijan Sarkar has been invited by the department of Philosophy, JU, to deliver speech in inaugural function of two-day State Level Seminar on "Swami Vivekananda and the Modern World " held during October 12-13,2012.
   5) Prof. Bijan Sarkar has been invited to deliver lectures for MBA 2nd year 1st semester students in the area of Production and Operations Management including Materials Management( Paper-XI) during June – August , 2012.
   6) Prof. Bijan Sarkar has been invited to conduct the viva- voce examination of Ph.D degree of West Bengal University of Technology on September 19, 2012.
   7) Prof. Bijan Sarkar has been invited to Chair a technical Session and deliver an invited talk at National Conference on "Recent Trends in Communication, Measurement,& Control", organized by Asansol Engineering College, Asansol, on 14th August 2012.
   8) Prof. B. Bhattacharyya delivered keynote address in the National Conference on "Recent Trends in Manufacturing Science and Technology", RTMST-2013 at NITTR. Kolkata, 18th-19th April 2013.
   9) Prof. B. Bhattacharyya delivered Lecture on National Level workshop on Advances in Manufacturing Sciences (AMS’12), DSCET, Chennai on 08th February 2013.
   10) Prof. B. Bhattacharyya delivered Lecture on “Electrochemical Micro-machining” for the pre conference workshop organized by Central Manufacturing Technology Institute (CMTI), Bangalore on 20th January 2013.

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

3. C. Seminar/Workshop Conference/Symposium Organized:
Department of Production Engineering organized 4th International and 25th All India Manufacturing Technology, Design and Research (AIMTDR) Conference, December 2012.

4. B. Articles Published in Journal:


43. Ghoshal, B., & Bhattacharyya, B. (2013). Shape control in micro borehole generation by EMM with the assistance of vibration of tool. Precision Engineering,


6. **Major Achievements**:

1. DST PURSE Programme based on research activities of Production Engg. Dept.

2. Prof. Bijan Sarkar has been invited to deliver lecture at a workshop organised by MCKV Institute of Engineering, Lilulah, Howrah-711 204 on 21st July 2012.

3. Prof. Bijan Sarkar has been invited to deliver lecture at a workshop organised by St.Thomas’ College of Engineering and Technology, Kolkata on 19th June 2012.

4. Prof. Bijan Sarkar has organized 3-week Refresher Course on "Inner Engineering: Opportunities & Challenges " during 18th June 2012 – 7th July,2012. Prof.S.Dutta , Pro Vice-Chancellor, JU, presided over the inaugural function. Prof.Subir Choudhury, Former Director, IIM, Kolkata, delivered address as the Chief Guest. Total twenty eight participants from different parts of India attended the course. Resource persons from IIT, Kharagpur, NITIE, Mumbai, TELCO, Jamshedpur, as well as, from our university addressed the gathering.

5. Prof. Bijan Sarkar has been invited to conduct the viva-voce examination of M.Tech Dissertation at NITTTR, Salt Lake on 11th June 2012.

6. Prof. Bijan Sarkar has been invited to conduct M.Tech (P.E.) viva-voce Examination at Kalyani Government Engineering College, Kalyani, Nadia-741 235, on 6th June 2012.

7. Prof. Bijan Sarkar has been invited to conduct the viva-voce examination of Dual-Degree M.Tech (final year students) of Industrial Engineering & Management Department at I.I.T., Kharagpur, on 4th May 2012.

8. Prof. Bijan Sarkar was invited by West Bengal University of Technology (WBUT), Salt Lake, to conduct the viva-voce examination of Ph.D degree on 11th April 2012.

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