

RESUME



Uttam Kumar Roy

Asst. Professor,


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Personal

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Date of Birth : 9th January, 1977

Citizenship : Indian

Sex/Status : Male/Double

Present Status : Asst. Professor, Department of Information Technology, Jadavpur University, Salt Lake Campus, Kolkata - 700 098

Educational Qualifications (in reverse chronological order)

Name of Degree/Examination	Name of University/Board/Council	Year of Passing	Div/ Class
Ph. D. (Engineering)	Jadavpur University, Kolkata, India	2008	--
M. Tech. (Computer Science & Engg.)	Jadavpur University, Kolkata, India	2002	1 st
B. Tech. (Computer Science & Engg.)	University of Calcutta, India	2000	1 st
Bachelor of Science (Hons. in Physics)	University of Calcutta, India	1997	1 st
Higher Secondary. (10+2)	West Bengal Council of Higher Secondary Education, India	1994	1 st
Secondary (10)	West Bengal Board of Secondary Education, India	1992	1 st

Text Books Published

Title	Publisher	No. of pages	Status
Web Technologies	Oxford University Press, New Delhi, India	800	Published in October 2010
Advanced Java Programming	Oxford University Press, New Delhi, India	1000 (approx.)	In press

Research Interest

Voice Processing, Mobile/Wireless Computing, Bio-Informatics, RFID, Distributed Computing, Cyber Physical Systems, Optimization, Machine Learning etc.

List of Publications

Mobile/Wireless Computing

1. Debabrato Giri, Uttam Kumar Roy, "Multi Channel Personal Area Network(MCPAN) Formation and Routing", International Conference on Industrial Engineering Science and Applications (IESA 2014), April 2-4, 2014, p 73-79, [m8]
2. Debabrato Giri, Uttam Kumar Roy, "WPAN Routing Using Huffman Technique", *International Journal of Engineering Sciences*, Vol (2), No (2), February, 2013 Pages 49-61. <http://waprogramming.com/index.php?action=paper&jid=5&iid=36&pid=167>, [m7]
3. Debabrato Giri, Uttam Kumar Roy, "Multilevel Address Reorganization Type 2 I N Wireless Personal Area Network", *International International Journal of Wireless & Mobile Networks (IJWMN)* Vol 05, No. 1 February 2013, 01, pages 47 - 64., <http://airccse.org/journal/jwmn/0213wmn04.pdf>, [m6]
4. Suman Kundu, Uttam Kumar Roy, "An Efficient Algorithm to Reconstruct a Minimum Spanning Tree in an Asynchronous Distributed Systems", 17th International Conference on Advanced Computing and Communications (ADCOM-09), December 14-17, 2009, Bangalore, India. P 118-124, http://www.accsindia.org/conferences/adcom_2009.php?procid=18&pageno=2, [m5]
5. Debabrato Giri, Uttam Kumar Roy, "Single Level Address Reorganization In Wireless Personal Area Network", 4th International Conference on Computers & Devices for Communication (CODEC-09), December 14-16, 2009, Calcutta University, India, p 1-4, ISBN- 978-1-4244-5073-2. http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?isnumber=5407062&arnumber=5407228&count=137&index=101, [m4]
6. Debabrato Giri, Uttam Kumar Roy, "Address Borrowing In Wireless Personal Area Network", Proc. of IEEE International Advanced Computing Conference, (IACC '09, March 6-7), Patiala, India, page no 181-186, http://ieeexplore.ieee.org/xpl/freeabs_all.jsp?isnumber=4808969&arnumber=4809003&count=300&index=33, [m3]
7. Uttam Kumar Roy, Debarshi Kumar Sanyal, Sudeepta Ray, "Analysis and Optimization of Routing Protocols in IEEE802.15.4", Proc. of the 4th Asian International Mobile Computing Conference (AMOC 2006), January 4-7, Jadavpur University, Kolkata, India, page no. 172-181, [m2]
8. Uttam Kumar Roy, Debarshi Kumar Sanyal, Sudeepta Ray, Samiran Chattopadhyay, "Analysis and Optimization Of Routing Protocols In Wireless Personal Area Networks", IASTED International Conference on Parallel and Distributed Computing and Systems (PDCS 2005), Phoenix, USA, Nov 14-16, 2005, [m1]

RFID

9. Indrajit Bhattacharya, Amit Kumar Gupta, Uttam Kumar Roy, "XRFID: Design of an XML Based Efficient Middleware for RFID Systems", *International Journal of Radio Frequency Identification and Wireless Sensor Networks*, Vol 1, No. 1, July 2011, ISSN:1847-9812, pp. 44-52, [rfid4]

10. Indrajit Bhattacharya, Uttam Kumar Roy, "*Tracking and monitoring of tagged objectse employing particle swarm optimization algorithm in a departmental store*", IJUM Engineering Journal, p 1-12, Vol. 12, No. 1, 2011, [rfid3]
11. Indrajit Bhattacharya, Uttam Kumar Roy, "*Optimal Placement of Readers in an RFID Network Using Particle Swarm Optimization*", International Journal of Computer Networks and Communication, Vol 2, No. 6, November 2010, ISSN:0975-2293, pp. 225-234, [rfid2]
12. Indrajit Bhattacharya, Uttam Kumar Roy, "*Performance Analysis Of Anti Collision Algorithms For Tracking Objects Containing Passive RFID Tags*", International Journal of Information Technology And Knowledge Management, July-December 2009, Vol-2, No-2, pp. 425-429, [rfid1]

Distributed Computing

13. Uttam Kumar Roy, Samiran Chattopadhyay, "*An Efficient Decentralized Middleware-based Load Balancing in state-full CORBA Object System*", Proc. of The 4th International Conference on Computer Science and Information Technology(CSIT 2006), April 5-7, 2006, Amman, Jordan, vol. 1, page 317-326, [dc5]
14. Uttam Kumar Roy, Samiran Chattopadhyay, "*Interceptor-based CORBA Object Proxy Caching System*", Proc. of the 1st IEEE International Conference of Computer Communications and Signal Processing (CCSP 2005, Nov 14-16), Kuala Lumpur, Malaysia, p 262-265, [dc4]
15. Uttam Kumar Roy, Samiran Chattopadhyay, "*Wrapper based Object Caching in CORBA*", Proc. of Computing, Communications and Control Technologies, CCCT '04, August 14-17, University of Texas, Austin, USA, Vol-1, page no. 211-216, [dc3]
16. Uttam Kumar Roy, Samiran Chattopadhyay, "*Some studies on Object Caching in CORBA*", Proc. of Distributed Processing and Networking, DPN '04, IIT Kharagpur, India, page no 18-22, [dc2]
17. Uttam Roy, Samiran Chattopadhyay and Amit Ranjan Gantait, "*Event Service Based Architecture for Object Caching in CORBA*", Proceedings of the 6th International Conference/Exhibition on High Performance Computing in Asia-Pacific Region (HiPC, December 18-21 2002, Bangalore, India), Tata McGraw Hill, Volume 2, page no. 583-584. <http://www.cdac.in/html/hpcasia/ps.asp>, [dc1]

Voice Processing

18. Banerjee P.S., Uttam Kumar Roy, Paper titled "Modified PSOLA-Genetic Algorithm based approach for Voice Re-Construction", Journal of Information Technology, Publishingindia Group, Volume 2: Issue 4, Page 1 – 9, Sep-Nov 2013, ISSN No. 2277-5110. URL: <http://www.imanagerpublications.com/Author/ArticleHTML.aspx?articleID=2538&issueid=493>, [vp1]

Research project completed/undertaken

Designation	Title of the Project	Funding Authority	Duration	Sanctioned Amount Rs.
Principal Investigator	A Middleware-based Approach to Design and Implement a Low-Latency Distributed Systems	Jadavpur University, Kolkata (Potential for Excellence Scheme)	1 year (30.08.05 to 30.08.06)	50,000/-
Principal Investigator	Developing and Improving Routing Protocols in IEEE802.15.4-based Sensor/Actuators Networks	Jadavpur University, Kolkata (JU Research Fund)	1 year (23.03.09-30.03.09)	50,000/-

Principal Investigator	Analysis and Improvement of different issues of WPAN for Sensor-based application	PURSE, DST, Govt. of India	3 years (01.01.2010-)	15,00,000/-
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Teaching Experience

M.C.K.V. Institute of Engineering, Kolkata, India
Asst. Professor
Department of Computer Science & Engineering
March 2002 – July 2002

Jadavpur University, Kolkata, India
Asst. Professor
Department of Information Technology
July 2002 – till date

Consultancy

Technical Consultant

Project: “Agro-Sense: Real Time Monitoring of the Climatological Conditions of Agricultural Field for Precision Agriculture using Sensor-based Wireless Mesh Networks”, conducted by Indian Institute of Management, Kolkata

1st June 2007 – 31st March 2008

Leadership in Professional Bodies

- Coordinator of “Induction Training for employees of Tech Mahindra (a global systems integrator and business transformation consulting firm)”, July-September, 2007.
- Coordinator of “Jadavpur University-Tata Consulting Services collaborative program on Software Engineering”, 2007-2012.
- Member of Faculty Council of Engineering & Technology, Jadavpur University, Kolkata, India, till date.

Fellowship/Award /Honor

- Obtained ‘National scholarship’ from UGC (India) based on performance of B.Sc. in 1997-2000
- Obtained ‘UGC Scholarship’ from Jadavpur University to pursue M. Tech course in 2000-2002
- Ranked 250th in the Country (India) in Graduate Aptitude Test in Engineering (GATE), 2000.
- Ranked 24th in the State (West Bengal, India) in B. Sc. (Hons. in Physics) Examination, 1997.
- Ranked 1st in the selection test for M. Tech admission. Dept. of Computer Technology, Bengal Engineering and Science University, Howrah, India in 2000
- My students Debarshi Kumar Sanyal and Sudepta Ray won the ‘Best project award’ from Tata Consultancy Services (TCS) for their project entitled “*Analysis and Optimization of Routing Protocols in IEEE802.15.4*” in 2006 under my supervision.

Teaching Assignments (At Jadavpur University)

		Theoretical	Sessional/Practical
৭	১০	Under Graduate ▶ Computer Networks	▶ Networking Lab

level	<ul style="list-style-type: none"> ▶ Web Technology ▶ Enterprise Networking ▶ Operating Systems ▶ Internetworking ▶ Object Oriented Programming ▶ Computer Graphics ▶ Digital Circuit and Logic Design ▶ Shell Programming ▶ Component Engineering 	<ul style="list-style-type: none"> ▶ Web Technology Lab ▶ Networking using OOP Lab ▶ Internet Lab ▶ Object Oriented Programming and Graphics Lab ▶ Software Lab-I (Linux Shell Programming) ▶ OS Application Lab
Post Graduate level	<ul style="list-style-type: none"> ▶ Wireless and Mobile Protocols ▶ OS & Kernel Programming ▶ Object Oriented Software Engineering (OOSE) ▶ Object Oriented Software Systems 	<ul style="list-style-type: none"> ▶ System Programming in Linux Lab ▶ Object Oriented Software Engineering (OOSE) Lab ▶ Distributed Software Systems (DSS) Lab

Participation in seminar/Conference/Symposia/Workshop

Title	Type	Year	Place	Role
International Conference on Distributed Processing and Networking(DPN)	International	2004	IIT, Kharagpur, India	Paper presentation
International Conference on Computer Communications and Signal Processing	International	2005	Kuala Lumpur, Malaysia	Paper presentation
Asian International Mobile Computing Conference	International	2006	Kolkata, India	Attend the lectures
Asian International Mobile Computing Conference	International	2007	Kolkata, India	Attend the lectures
Pedagogical Tools for Knowledge Management	National	2009	Hyatt Regency, Kolkata, India	Attend the lectures
International Conference on Distributed Computing and Networking (ICDCN 2010)	International	2010 (3-6 th Jan)	University of Calcutta, Kolkata, India	Attend the lectures
Energy Sectors in India: Prospectus and Challenges	National	21 th March 2014	Jadavpur University, Kolkata, India	Attend the lectures
Excellence in Tour	International	22-28 March, 2014	Science Auditorium, Kolkata, India	Attend the lectures
Nature Inspired Computing to be held at Electronics and Communication Sciences Unit (ECSU)	National	26-28 March, 2014	Indian Statistical Institute (ISI), Kolkata	Attend the lectures
International Conference on	International	2-4 April,	NIT, Durgapur,	Attend the lectures

Industrial Engineering Science and Applications (IESA-14)		2014	India	
Essence A Foundation for Software Development Games	National	04 June, 2014	Indian Statistical Institute (ISI), Kolkata	Attend the lectures

Skills

Operating Systems: AIX (Unix), Linux, Windows

Hardware Systems: IBM-P650, IBM-P690, IBM/HP PC

Languages: C/C++, Java, JavaScript, Shell Script, JSP/Servlet, SQL, HTML, XML, Oracle/MySQL,

Academic Course Completed

Type of Course	Title	Attended/ Organized	Place	Duration		Sponsor
				From	To	
Refresher	Disaster Management	Attended	UGC Academic Staff College, Jadavpur University, India	2 nd March, 2010	22 nd March, 2010	UGC
Retraining	Retraining of teachers on E-learning	Attended	UGC Academic Staff College, Jadavpur University, India	16 th November, 2007	17 th November, 2007	UGC
Orientation	17 th UGC sponsored Orientation Programme	Attended	UGC Academic Staff College, Jadavpur University, India	20 th August, 2007	17 th September, 2007	UGC

Post-graduate Level Dissertation Guided

- Debabrato Giri, "Routing in Wireless Personal Area Network", 2009
- Suman Kundu, "Reconstructing Minimum Weighted Spanning Tree after Topological Changes", 2009
- Saptarshi Sengupta, "Wireless Network Deployment and Optimization", 2009
- Ankur Biswas, "Hardware/Software Partitioning Using Genetic Algorithm", 2009
- Uddipan Das, "Connecting Network Partitions in Wireless Ad-Hoc Networks", 2008
- Amjad Khan, "Power Aware Hierarchical Clustering Algorithm for IEEE802.15.4/ZigBee LR-PAN", 2008
- Sourav Karan, "Digital Color Image Segmentation Using Fuzzy C-Means Clustering Algorithm", 2008
- Batsayan Mukherjee, "Performance Study of Open Office for Document Processing and Printing in SOA Architecture", 2007
- Raktim Kumar Laskar, "Performance Improvement in Global System for Mobile Communication (GSM)", 2007
- Moumita Chakraborty, "Implementing Wireless Sensor Network for Monitoring Agricultural Parameters", 2007
- Suwendu Mandal, "Face Recognition system using Morphological Techniques", 2006
- Mithun Sadhukhan, "Enhancement of ZigBee Tree Routing Protocol", 2006
- Tapashri Das, "Query Processing in Grid Computing", 2006

- Tuhin Subhra Jana, *“Load Balancing with caching in CORBA-based Distributed Systems”*, 2005
- Soumen Santra, *“An Updated Strategy for Resource and Load Sharing in Mobile Computing Environment using Tickets”*, 2005

Visiting Assignment

- Head examiner of West Bengal Council of Higher Secondary (10+2) Examinations (State Level Examination), 2006-07.
- Paper-setter of West Bengal Council of Higher Secondary (10+2) Examinations (State Level Examination), 2007-08.
- Acted as an External Examiner for evaluating Final year sessional exam. in the year 2008 at RCC Institute of Informational Technology, Kolkata, India
- Visiting Faculty, Gate Forum, India till date

Contribution to Continuing Education

- Delivered lectures on “HTML” in short-term evening course for school leaving students, organized by Project Impact, Jadavpur University, 2002.
- Delivered lectures on “Object Oriented Programming” in short-term evening course for school leaving students, organized by Project Impact, Jadavpur University, 2003.
- Delivered lectures in “Induction Training for employee of Wipro” organized by Project Impact, Jadavpur University, 2005
- Delivered lectures on “Object Oriented Programming” in “Induction Training for employee of Cognizant Technology Solutions (CTS) “Organized by Dept. of Computer Science & Engg, Calcutta University, 2006
- Delivered Lectures on “Advanced Java”, organized by “PervCom Consulting Pvt. Ltd. 195A, Jodhpur Park, Kolkata – 700068, West Bengal, India”, 2006
- Delivered lectures on “Wireless and Mobile Protocols” at Center for Mobile Computing and Communications, Jadavpur University, Kolkata, India, 2006
- Delivered lectures on “Operating Systems” in “Refresher Course” organized by “WEBEL” at Taratala complex, 2007
- Delivered lectures on “Java” in “Induction Training for employee of Tech Mahindra”, organized by Project Impact, Jadavpur University, 2007
- Delivered lectures on “Unix Shell programming” in “Induction Training for employee of Tech Mahindra”, organized by Project Impact, Jadavpur University, 2007
- Delivered lectures on Computer Networks at Department of Computer Science and Engineering, National Institute of Durgapur, West Bengal, India, 2007
- Delivered lectures on “Web Designing” in short term course “Short Term Course on Computational Tools & Open Source Software”, organized by UGC Academic Staff College, Burdwan University, West Bengal Kolkata, on 29-08-2013

Network Administrative Activities done

Working as a system administrator in the Dept. of Information Technology, Jadavpur University having excellent hands-on experience in installing, configuring and maintaining different Linux and/or Windows based systems:

- Network Information Service (NIS)

- Network File System (NFS)
- Dynamic Host Configuration Protocol (DHCP)
- Domain Name System (DNS)
- Web Server (Apache)
- JSP Engine (Tomcat)
- JRun (an application server)
- Oracle 9i
- Rational Rose
- Borland Enterprise Server
- Sun Java Application Server,
- PC²

Other Research Activities

Serving as referee

- 41st National Annual Convention Computer Society of India (CSI-2006).
- 5th Asian Mobile Computing Conference (AMOC-'07).
- ICIC '08 (International Conference on Intelligent Computing, 2008)
- ICIC '09 (International Conference on Intelligent Computing, 2009)
- IJCT '14 (Journal of Computers & Technology, 2014, Vol 12, Issue 9)

Member of Organizing Committee


- Seminar on Recent Trends in Information Technology: Architecture, Modeling, Environment and Application, March 25, 2006, Organized by Department of Information Technology, Jadavpur University.

List of Academic/Professional References

1. **Prof. Somprakash Bondopadhyay**

Dept. of Management Information Systems,
Indian Institute of Management (IIM)
Kolkata-700 104, India

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<http://www.iimcal.ac.in/faculty/facpage.asp?ID=somprakash&tab=1>

2. **Prof. Samiran Chattopadhyay**

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3. **Prof. Nabendu Chaki**

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The information provided and statements made above are true and correct to the best of my knowledge.


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(Uttam Kumar Roy)