

Atanu Roy Chowdhury

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Rm 238, Maxwell Dworkin, Department of Computer Science,
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Date of Birth: 10th December, 1980

Sex: Male

Visa: F1

Research Interests: Wireless Sensor Networks, Pervasive and Ubiquitous Computing Environments.

Academic Record:

2007-2009 SM in Computer Science
Harvard University, Cambridge, MA, USA.

2003-2005 MTech in Computer Science and Engineering
Indian Institute of Technology Guwahati, India.

1999-2003 BTech in Computer Science and Engineering
B P Poddar Institute of Technology and Management,
University of Kalyani, India.

1986-1999 Calcutta Boys' School, Kolkata, India.

Awards:

2008-09 John A. and Elizabeth S. Armstrong Fellowship

2007-2008 Harvard Graduate Student Fellowship

2004 Selection for DAAD fellowship to pursue research at the Technical University of Munich, Germany

2003-2005 Scholarship from the Ministry of Human Resource and Development

1999-2003 Academic excellence scholarship from Calcutta Port Trust

1999 Merit award from the Calcutta Port Trust for excellence in high school.

Past Employment:

June2009- Aug2009 Graduate Intern
Applied Research, Advanced Technology Solution Labs
Telcordia Technologies
One Telcordia Drive, Piscataway, NJ, USA.

Jan2009-June2009 Research Assistant
School of Engineering and Applied Sciences
Harvard University, Cambridge, MA, USA 02138.

Sept2008-Dec2008	Teaching Assistant School of Engineering and Applied Sciences Harvard University, Cambridge, MA, USA, 02138.
July2005-July2007	Junior Research Associate [July 2005-July 2007], Convergence Group [Wireless, Mobile & Sensor Networking Research], Software Engineering and Technology Laboratory, Infosys Technologies Limited [NASDAQ: INFY], 44 Electronic City, Bangalore-560100, INDIA;
Mar2001-Mar2003	Partner XPRZ Computers, Kolkata 700097, INDIA.

Publications:

1. Konrad Lorincz, Bor-rong Chen, Geoff Werner-Allen, Atanu Roy Chowdhury, Shyamal Patel, Paolo Bonato, Matt Welsh, "*Mercury: A Wearable Sensor Network Platform for High-Fidelity Motion Analysis*" NSDI Poster session, Boston, MA, April 22-24, 2009.
 2. Rohan Narayana Murty, Geoffrey Mainland, Ian Rose, Atanu Roy Chowdhury, Abhimanyu Gosain, Josh Bers, and Matt Welsh, "*CitySense: An Urban-Scale Wireless Sensor Network and Testbed*," In Proceedings of the 2008 IEEE International Conference on Technologies for Homeland Security, Waltham, MA, May 2008.
 3. Kartik Muralidharan, Karthikeyan Balaji Dhanpal, Atanu Roy Chowdhury, "*BOWL: Design and Implementation of a (Connectionless) Broadcasting system Over Wireless LAN*", in proceedings of 9th IEEE International Symposium on a World of Wireless, Mobile and Multimedia Networks, WOWMOM 2008, Newport Beach, CA, USA, 23-26 June, 2008.
 4. Kartik Muralidharan, Karthik GV, Puneet Gupta, Atanu Roy Chowdhury, "*mConnect: A Context Aware Mobile Transaction Middleware*," in Proceedings of the Third International Conference Communication Systems software and middleware (COMSWARE 08), January 5-10, 2008, Bangalore, India. IEEE 2008.
 5. Atanu Roy Chowdhury, Somnath Tripathy and Sukumar Nandi, "*Securing Wireless Sensor Networks Against Spurious Injections*" in IEEE Second International conference for Communication Systems software and middleware (COMSWARE 07), Bangalore, January 7-12, 2007.
 6. Mantha V S Deekshitulu, Sukumar Nandi, Atanu Roy Chowdhury, "*Improving MAC Layer Fairness in Multi-Hop 802.11 Networks*" accepted in IEEE 2nd International conference for Communication Systems Software and Middleware (COMSWARE 07), Bangalore, January 7-12, 2007.
 7. Puneet Gupta, Zalak Dehdia, Karthik Muralidharan, Atanu Roy Chowdhury "*A pervasive Synchronization Middleware for Mobile Devices*", invited in International Conference on Mobile, Ubiquitous and Pervasive Computing (ObCom-2006), Vellore, India, Dec 18-19, 2006
 8. Puneet Gupta, Rajat Gogri, Karthik Muralidharan Atanu Roy Chowdhury "*Location Based Services for the Pervasive World*" invited in International Conference on Mobile, Ubiquitous and Pervasive Computing (ObCom-2006), Vellore, India, Dec 18-19, 2006.
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9. Somnath Tripathy, Sukumar Nandi, Atanu Roy Chowdhury, "*CARMA: Cellular Automata-based Remote Mutual Authentication*" accepted in the 9th International Conference of Information Technology (ICIT 2006), Bhubaneshwar, - India, 18-21 December 2006.
10. Sumeet Parmar, Atanu Roy Chowdhury, Sukumar Nandi, "*Power Efficient and Low Latency MAC for Wireless Sensor Networks*" 2006 IEEE International Workshop on Wireless Ad-hoc and Sensor Networks (IWWAN 2006), New York, June 28-30, 2006.
11. Sumeet Parmar, Atanu Roy Chowdhury, Sukumar Nandi, "*LLM: Low Latency MAC Protocol for Wireless Sensor Networks*" 2006 IEEE International Workshop on Wireless Ad-hoc and Sensor Networks (IWWAN 2006), New York, June 28-30, 2006.
12. Atanu Roy Chowdhury, Sukumar Nandi, "*Received Signal Based Minimization of Broadcast Storm in Multi-hop MANET*" in proceedings of 2006 IFIP International Conference on Wireless and Optical Communications Networks (WOCN' 06), Bangalore - India, 11-13 April 2006.
13. Atanu Roy Chowdhury, Sukumar Nandi, "*Survey of Broadcasting Techniques for Dense Wireless Computing Devices*" in proceedings of 2006 IFIP International Conference on Wireless and Optical Communications Networks (WOCN' 06), Bangalore - India, 11-13 April 2006.
14. Somnath Tripathy, Atanu Roy Chowdhury, Sukumar Nandi, "*CARA: Cellular Automata Based Remote-User Authentication Scheme,*" in IEEE First International conference for Communication Systems software and middleware (COMSWARE 06), New Delhi, January 8-12, 2006.
15. Mantha V S Deekshitulu, Sukumar Nandi, Atanu Roy Chowdhury, "*MAC Layer Fairness Issues in Multi-Hop Wireless Ad hoc Networks*" in Asian Applied Computing Conference (AACC 2005), Kathmandu, Nepal, December 10-12, 2005.
16. Vinod Kone, Atanu Roy Chowdhury, Sukumar Nandi, "*A Caching Mechanism To Improve The Reliability Of Multicasting In Multihop MANET,*" in proceedings of Thirteenth International Conference on Advanced Computing & Communications- ADCOM 2005, Coimbatore, India, December 14-17, 2005.

Patents:

Kumar Padmanabh, Atanu Roy Chowdhury, Tarun Bansal and Puneet Gupta, "A method of transmitting information reliably from the motes", filed for US and Indian Patents (no 1432/CHE/2008)

Dissertations:

"*Reliable Broadcast Issues in Multi-hop Mobile Adhoc Networks*", M Tech dissertation, Department of computer Science & Engineering, Indian Institute of Technology Guwahati, 2005.

"*Fringe Analysis Based Surface Measurement*", B Tech dissertation, Department of computer Science & Engineering, University of Kalyani, 2003.

Business cases and Tutorial material:

1. Atanu Roy Chowdhury, Puneet Gupta, "Building Invisible Castles: Resilient Fortifications for Differentiating Advantages in Business", SETLabs Briefings, Infosys.
 2. Atanu Roy Chowdhury, "WSN: Introductory Concepts & Business Cases", Infosys Training Material.
 3. Atanu Roy Chowdhury, "Programming in the TinyOS environment", Infosys Training Material.
 4. Atanu Roy Chowdhury, Kartik Muralidharan, "the P2P Computing Paradigm- Impact and opportunities", Infosys Technology Review Summit 2006-07.
 5. Atanu Roy Chowdhury, Sukumar Nandi, "*Non-Cryptographic Security Issues in Wireless Sensor Networks*" invited in National Conference on Trends in Advanced Computing, Tezpur, 22-23 March 2007.
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Academic Projects [prior to joining Infosys]:

- Design and implementation of A Speech Recognizer using HTK, at IIT Guwahati (Sept-Nov 2003)
- Design and implementation a Library Automation tool using MS Access/VB6.0, at the University of Calcutta, (July-Aug 2002)

- At Infosys, I conduct regular courses on Wireless Sensor Networks as well as the TinyOS environment. Prior to this I have conducted the following seminars

Place	Date	Theme
IIT Guwahati	April2005	Glomosim Tutorial
IIT Guwahati	March2005	Wireless Body Area Networks
IIT Guwahati	Nov 2004	Fairness Issues in MANET
IIT Guwahati	Nov 2004	Broadcast Issues in MANET
Tezpur University	June 2004	Broadcasting mechanisms in MANET
IIT Guwahati	April 2004	Broadcasting using Unicasting: A Preferred link based approach
IIT Guwahati	April 2004	Model Verification using SMV
IIT Guwahati	March2004	Use of Higher Order Logic in Formal Verification using Isabelle/HOL
IIT Guwahati	Dec 2003	Statistical testing of Random Number Sequences

ATANU ROY CHOWDHURY
April 17, 2009
Cambridge, USA
