

Curriculum Vitae

Name: Md. Abdur Rahman

Current Status: Ph.D Candidate, Dept. of Electrical Engineering, University of Ottawa,
Network Administrator, MCRLab, University of Ottawa &
Student Researcher, National Research Council (NRC), Canada.

Contact Address: MCRLab, CBY-B505, 800 King Edward Avenue, Ottawa, ON
Phone: +1(613)562-5800X6248 (Office)
+1(613)884-9306 (Mobile)

Email: rahman@mcrlab.uottawa.ca, mdrahman@site.uottawa.ca

Thesis Supervisor: Dr. Abdulmotaleb El Saddik [<http://www.site.uottawa.ca/~elsaddik>]
And Dr. Wail Gueaieb [<http://www.site.uottawa.ca/~wgueaieb>]

Research Interest: Multimedia Communication, Sensor Networks, Social Networks, Tele-Surveillance.

Current Research Project:

1. SynergiC³ in co-operation with National Research Council (NRC),
Canada
[<http://synergic3.com/>]

Previous Research Projects:

1. Learning Objects Repositories Network (LORNET)
[<http://www.lornet.org>]
2. Banc d'Essai de Services de liaisons optiques pour un environnement de
Téléformation doctorale (BEST)
[<http://www.risq.qc.ca/baraque/projetsview.php?key=16>]

Education:

Degree and Discipline	University	Date Completed/ In Progress
Ph.D, Electrical Engineering	University of Ottawa	In Progress
M.A.Sc, Electrical Engineering	University of Ottawa	September 2005
B. Sc, Electrical & Electronic Engineering	Bangladesh University of Engineering & Technology (BUET), Bangladesh	June 2000

Tentative Ph.D Thesis Topic:

Design and Development of Distributed Multimedia Tele-Surveillance System

Courses Taken during Ph.D Study:

Course Name	Course Code	Session	Grade
Dev./Real-Time & Dist. Software	ELG6178I	Fall 2005	A
Virtual Environments	ELG5124	Winter 2006	A+
Ph.D. Comprehensive Examination	ELG9998 S	Winter 2006	P
Directed Studies	ELG7199 T	Spring/Summer 2006	A+

M.A.Sc. Thesis Topic:

My Master's thesis with the title "*Design and Development of P2P Multilingual Collaborative Multimedia Tool*" was nominated as the "**BEST THESIS**" from the School of Information Technology and Engineering (SITE) of University of Ottawa.

Courses Taken during Masters Study:

Course Name	Course Code	Session	Grade
Distr. Data. & Transac. Proce.	CSI5311	Winter 2004	A
Sys. & Architec. For Elect. Comm.	CSI5380	Winter 2004	A
Adv. Top. In Computer Systems	CSI7163	Winter 2004	A
Multimedia Communications	ELG5121	Fall 2004	A+
Design Multim. Dist. Data. Sys.	ELG5199	Fall 2004	A+
Data Encryption	ELG5373	Winter 2005	A+

Undergraduate CGPA: 9.475 out of 10.

Master's CGPA: 9.5 out of 10.

Ph.D CGPA: 9.67 out of 10.

Academic Experience:

Type of Employment	Session	Description
Research Assistant	Winter 2004 till to date	Assist supervisor in publishing journals, working for the projects
Lab Administrator	Winter 2004 till to date	Manage computer network of Multimedia Communications Research Laboratory (MCRLab)
Graduate TA	Fall 2005	ELG5121 (Multimedia Communications)
Undergraduate TA	Winter 2006	ELG4132A (Principles & Application of VLSI Design)
Undergraduate TA	Fall 2006	ELG 4174 (Wireless Communications Fundamentals)
Undergraduate TA	Fall 2006	ELG 4171 (Communication Systems)
Undergraduate TA	Fall 2007	ELG 4171 (Communication Systems)
Undergraduate TA	Winter 2008	ELG4132A (Principles & Application of VLSI Design)
Lecturer	Fall 2001-Fall 2003	Department of Computer Science and Engineering of Khulna University of Engineering and Technology, Bangladesh

List of awards:

1. **NSERC PGS-D2** scholarship from Fall 2007 to Fall 2009.
2. University of Ottawa **Excellence Scholarship** from Fall 2007 to Fall 2009.
3. **Ontario Graduate Scholarship (OGS)** for the session 2008-2009 (Declined to continue NSERC)
4. **Ontario Graduate Scholarship (OGS)** for the session 2007-2008 (Tenured for only 4 months and then declined to accept NSERC PGS-D2).
5. **Ontario Graduate Scholarship (OGS)** for the session 2006-2007.
6. University of Ottawa **Excellence Scholarship** for the session 2006-2007.

7. **Admission Scholarship** for Ph.D study awarded by the Faculty of Graduate and Postdoctoral Studies (FGPS) of University of Ottawa from Fall 2005 to Fall 2009.
8. **Admission Scholarship** during Master's study period awarded by the FGPS of University of Ottawa.
9. Bangladesh University of Engineering and Technology (BUET) **Merit Scholarship** from year 1995 to 2000.

List of Publications:

Book Chapter:

1. **Md. Abdur Rahman**, Abdulmotaleb El Saddik, and Wail Gueaieb, "Wireless Sensor Network Transport Layer: State of the Art". In Subhas Mukhopadhyay and Ray Huang, editors, *Sensors: Advancement In Modeling, Design Issues, Fabrication And Practical Applications*, LECTURE NOTES IN ELECTRICAL ENGINEERING. Springer-Verlag, April 2008.

Refereed Journals:

1. **Md. Abdur Rahman**, Wail Gueaieb, and Abdulmotaleb El Saddik, "Design and Development of a framework to connect Sensor Network with Social Networks," MULTIMEDIA SYSTEMS JOURNAL (in process).
2. **Md. Abdur Rahman**, Suruz Miah, Wail Gueaieb, and Abdulmotaleb El Saddik, "SENORA: A P2P Service Oriented Framework for Collaborative Multi-robot Sensor Network", IEEE SENSORS JOURNAL, VOL. 7, NO. 5, MAY 2007.
3. **Md. Abdur Rahman** and Abdulmotaleb El Saddik, "Modified Syntactic Method to Recognize Bengali Handwritten Characters", IEEE TRANSACTION ON INSTRUMENTATION AND MEASUREMENT, VOL. 56, NO. 6, DECEMBER 2007.
4. Abdulmotaleb El Saddik, **Md. Abdur Rahman**, Souhail Abdala, and Bogdan Solomon, "PECOLE: P2P Multimedia Collaborative Environment", INTERNATIONAL JOURNAL OF MULTIMEDIA TOOLS AND APPLICATIONS, Springer, August 08, 2007.

Conference Papers:

1. **Md. Abdur Rahman**, Reza GhasemAghaei, Abdulmotaleb El Saddik, and Wail Gueaieb, "M-IAR: Biologically Inspired Routing Protocol for Wireless Multimedia Sensor Networks", *IEEE International*

- Instrumentation and Measurement Technology Conference (I2MTC 2008)*, Victoria, British Columbia, Canada, October 12--15 2008.
2. **Md. Abdur Rahman**, Reza GhasemAghaei, Abdulmotaleb El Saddik, and Wail Gueaieb, "Ant Colony-Based Many-to-One Sensory Data Routing in Wireless Sensor Networks", In *Proceedings of the ACS/IEEE International Workshop on Wireless Internet Services (WISe'08)*, Doha, Qatar, April 1-4 2008.
 3. Reza Ghasemaghahi, **Md. Abdur Rahman**, Wail Gueaieb, and Abdulmotaleb El Saddik. Ant Colony-Based Reinforcement Learning Algorithm for Routing in Wireless Sensor Networks. In *Proceedings of the IEEE Instrumentation and Measurement Technology Conference (IMTC2007)*, Warsaw, Poland, May 1-3 2007.
 4. Md. Suruz Miah, Wail Gueaieb, **Md. Abdur Rahman**, and Abdulmotaleb El Saddik. Autonomous Dead-Reckoning Mobile Robot Navigation System With Intelligent Precision Calibration. In *Proceedings of the IEEE Instrumentation and Measurement Technology Conference (IMTC2007)*, Warsaw, Poland, May 1--3 2007.
 5. **Md. Abdur Rahman**, Md. Suruz Miah, Wail Gueaieb, and Abdulmotaleb El Saddik. A Framework for Sensory-based P2P Collaborative Environment. In *Proceedings of the IEEE Instrumentation and Measurement Technology Conference (IMTC2007)*, Warsaw, Poland, May 1--3 2007.
 6. **Md. Abdur Rahman**, Md. Suruz Miah, Wail Gueaieb, and Abdulmotaleb El Saddik. A P2P Sensor Framework for Collaborative Robots Manipulation. In *Proceedings of the Second International Conference on Systems (ICONS 2007)*, Martinique, French Caribbean, April 22--28 2007.
 7. Abdulmotaleb El Saddik, **Md. Abdur Rahman**, and M. Anwar Hossain, "Authoring Multimedia Objects in Collaborative Ambient Intelligent Virtual Environment", In *Proceedings of the 4th IEEE International Workshop on Haptic Virtual Environments and their Applications (HAVE2005)*, pp. 159 – 165, Ottawa, Canada, October 1-2, 2005.
 8. **Md. Abdur Rahman**, Souhail Abdala and Abdulmotaleb El Saddik, "A Framework for Two Phase Reconciliation in Mobile Databases", In *Proceedings of the NOUvelles TEchnologies de la R^spartition (NOTERE 2005)*, pp. 11–17, Montreal, Canada, August 30-September 1, 2005.

9. Mohammad Badiul Islam, Mollah Masum Billah Azadi, **Md. Abdur Rahman** and M. M. A. Hashem, "Bengali Handwritten Character Recognition Using Modified Syntactic Method", In *Proceedings of 2nd National Conference on Computer Processing of Bangla (NCCPB-2005)*. pp. 264-275, Dhaka, Bangladesh, February 18, 2005.
10. M. Anwar Hossain, **Md. Abdur Rahman**, Abdulmotaleb El Saddik and Pierre Lévy, "Architecture for 3D Navigation and Authoring of Distributed Learning Object Repositories", In *Proceedings of the 3rd IEEE International Workshop on Haptic Virtual Environments and their Applications (HAVE2004)*, pp. 117–123, Ottawa, Canada, October 2-3, 2004.
11. **Md. Abdur Rahman**, M. Anwar Hossain, Abdulmotaleb El Saddik, "LORNAV: A Demo of a Virtual Reality Tool for Navigation and Authoring of Learning Object Repositories", In *Proceedings of the 8th IEEE International Symposium on Distributed Simulation and Real Time Applications (DS-RT 2004)*, pp. 240-243, Budapest, Hungary, October 21-23, 2004.
12. Md. Shamim Hossain, **Md. Abdur Rahman**, and Abdulmotaleb El Saddik "A Framework for Repurposing Multimedia Content". In *Proceedings of the Canadian Conference on Electrical and Computer Engineering (CCECE)*, pp. 971 – 975, Niagara, Ontario, Canada, May 2-5, 2004.
13. Md. Monirul Islam, M. A. H. Akhand, **Md. Abdur Rahman** and K. Murase, "Weight Freezing to Reduce Training Time in Designing Artificial Neural Network," In *Proceedings of the International Conference on Computer and Information Technology (ICCIT 2002)* pp. 132-136, Dhaka, Bangladesh, June 2002.

Demo and posters:

1. **Md. Abdur Rahman**, M. Anwar Hossain, and Abdulmotaleb El Saddik, "PECOLE: A P2P-based collaborative multimedia authoring tool", **Poster** submitted to the *2nd Annual Scientific Conference of the I2LOR-05*, Simon Fraser University, Vancouver, Nov. 14-18, 2005.
2. M. Anwar Hossain, **Md. Abdur Rahman**, Jianming Ke, Kai Wang, and Abdulmotaleb El Saddik, "UbiLearn: Framework for Web Service based Collaborative Learning Portal", **Poster** submitted to the *2nd Annual Scientific Conference of the I2LOR-05*, Simon Fraser University, Vancouver, Nov. 14-18, 2005.
3. M. Anwar Hossain, Abu Saleh Md. Mahfujur Rahman, Jamil Melhem, **Md. Abdur Rahman**, and Abdulmotaleb El Saddik, "Interactive

Navigation of Distributed Learning Objects in 3D Game Environment”, Demo submitted to the *2nd Annual Scientific Conference of the I2LOR-05*, Simon Fraser University, Vancouver, Nov. 14-18, 2005.

4. M. Anwar Hossain, **Md. Abdur Rahman**, Abdulmotaleb El Saddik and Pierre Lévy, "3D Authoring of Learning Objects in Distributed LORs", Poster Presentation in the *1st Annual Scientific Conference of the LORNET Research Network (I2LOR-04)*, Montreal, Canada, Nov 18-19, 2004.

Developed Demos:

I was one of the leading members during the development of the following projects.

1. <http://www.mcrlab.uottawa.ca/lornet/demo/pecole/pecole.html>
2. <http://www.mcrlab.uottawa.ca/lornet/demo/pecole/Browser.rar>

Language Skill:

Programming

Basic:

1. Fortran, Java, C, C++, J2ME, and Visual Studio.NET.

Scripts:

2. DOS Batch and UNIX shell programming, PHP, Perl, CGI, JavaScript, Adobe ActionScript 3.0, ASP, and JSP.

IDE:

3. Eclipse, JBuilder, NetBeans, BEA WebLogic, and WebSphere, Adobe Flex.

Technologies:

4. Internet, Web Services, XML, and Tele-Virtual Collaboration.

Databases:

5. Oracle, Microsoft SQL Server, MySQL, PostgreSQL, and IBM DB2.

OS:

6. Windows, Symbian, UNIX, and Linux

Conversational

English: Fluent in Writing, Reading and Speaking.

Membership in Organizations:

1. Student member IEEE.
2. Student member ACM.
2. Member of Institution of Engineers, Bangladesh (IEB).

Nationality Status:

Citizen of Bangladesh (by birth) and Canada.