DR. S. M. KAMRUZZAMAN

A. CONTACT DETAILS
Assistant Professor
Department of Software Engineering
College of Computer and Information Sciences
King Saud University, Kingdom of Saudi Arabia
Address: Room No. 2078, Building No. 31
P. O. Box. 51178, Riyadh 11543
Phone: +966-11-4696252 (off)
E-mail: smzaman@ksu.edu.sa, smzaman@gmail.com

B. CAREER OBJECTIVE

To acquire and spread knowledge for the welfare of the mankind.

C. EDUCATION

Aug. 2007 – Feb. 2012	Ph.D. in Electronics and Information Engineering Hankuk University of Foreign Studies (HUFS), South Korea Dissertation Title: *Design of a Routing Protocol for Cognitive Radio Ad Hoc Networks* Advisor: Prof. Dong Geun Jeong, Ph.D. Date of Graduation: February 24, 2012.
Apr. 2000 – Mar. 2005 (Part-time)	M. S. in Computer Science and Engineering Bangladesh University of Engineering and Technology (BUET) Thesis Title: *An Algorithm to Extract Rules from Artificial Neural Networks* Advisor: Prof. Md. Monirul Islam, Ph.D. Date of Graduation: March 29, 2005.
Sept. 1993 – Jul. 1997	B. S. in Electrical and Electronic Engineering Dhaka University of Engineering and Technology (DUET), Bangladesh (Formerly, Bangladesh Institute of Technology Dhaka, Bangladesh) Thesis Title: *Computer Aided Optimal Generation Scheduling by Lagrangian Method* Advisor: Prof. Md. Shahid Ullah, Ph.D. Date of Graduation: July 31, 1997.

D. RESEARCH INTERESTS

- Wireless communications systems/protocols
- Radio resource management
- MAC and Routing protocols for wireless networks
- Cognitive radio ad-hoc and sensor networks
- Performance evaluation of wireless communications protocols
- Rule extraction from neural networks
- Artificial intelligence and data mining

E. TEACHING AND RESEARCH EXPERIENCE

May 1, 2013 – Present	Assistant Professor, Department of Software Engineering, College of Computer and Information Sciences, King Saud University, Riyadh 11543, Kingdom of Saudi Arabia.
Nov. 2012 – Apr. 2013	Associate Professor, Department of Information & Communication Engineering, University of Rajshahi, Rajshahi-6205, Bangladesh.
Aug. 2006 – Nov. 2012	Assistant Professor, Department of Information & Communication Engineering, University of Rajshahi, Rajshahi-6205, Bangladesh.
Aug. 2007 – Dec. 2011	Teaching and Research Assistant, Department of Electronics Engineering, Hankuk University of Foreign Studies, Yongin-si, Gyonggi-do, 449-791, Korea.
Jan. 2005 – Jul. 2006	Assistant Professor, Department of Computer Science & Engineering, Manarat International University, Gulshan-2, Dhaka-1212, Bangladesh.
May 2002 – Dec. 2004	Assistant Professor, Department of Computer Science & Engineering, International Islamic University Chittagong, Chittagong-4203, Bangladesh.
Mar. 1998 – May 2002	Lecturer, Department of Computer Science & Engineering, International Islamic University Chittagong, Chittagong-4203, Bangladesh.

May 2012 – June 2012	Chairman (in-charge), Department of Information & Communication Engineering, University of Rajshahi, Rajshahi-6205, Bangladesh.
Mar. 2012 – Oct. 2012	Chairman, M.Sc. (Final Year) Examination Committee 2010, Department of Information & Communication Engineering, University of Rajshahi.
Jan. 2005 – Jul. 2006	Head, Department of Computer Science & Engineering, Manarat International University, Gulshan-2, Dhaka-1212, Bangladesh.
Jan. 2005 – Jul. 2006	Member, Academic Council, Manarat International University, Bangladesh.
Jan. 2005 – Jul. 2006	Convener, Curriculum Development Committee for Electronics & Communications Engineering and Curriculum Revise Committee for Computer Science & Engineering, Manarat International University, Bangladesh.
Jan. 2005 – Jul. 2006	Examiner, National University, Gazipur, Bangladesh.
May 2003 – Dec. 2004	Convener, Students Thesis Committee, Department of Computer Science & Engineering, International Islamic University Chittagong, Bangladesh.
Oct. 2000 – Apr. 2003	Head, Department of Computer Science & Engineering, International Islamic University Chittagong, Dhaka Campus, Bangladesh.
Mar. 1999 – Apr. 2000	Warden, Hostel-2, International Islamic University Chittagong, Bangladesh.
Mar. 1998 – Apr. 2000	Member Secretary, Curriculum Development Committee for Electronics & Communications Engineering, and Curriculum Revise Committee for Computer Science & Engineering, International Islamic University Chittagong.

G. PUBLICATIONS

International Journal Articles

1. **S. M. Kamruzzaman**, Abdullah Alghamdi, Abdulhameed Alelaiwi, and Mohammad Mehedi Hassan, "Channel-slot aggregation diversity based slot reservation scheme for cognitive radio ad hoc networks," *International Journal of Distributed Sensor Networks*, vol. 2014 (2014), Article ID 382414, 13 pages, February 2014. **ISI** Journal, Impact Factor: 0.727, 2012.

2. **S. M. Kamruzzaman**, Eunhee Kim, Dong Geun Jeong, and Wha Sook Jeon, "Energy-aware routing protocol for cognitive radio ad hoc networks," *IET Communications*, vol. 6, no. 14, pp. 2159–2168, September 2012. **ISI** Journal, Impact Factor: 0.829, 2012.

3. **S. M. Kamruzzaman**, Md. Abdul Hamid, and A. M. Jehad Sarkar, "ERANN: An algorithm to extract symbolic rules from trained artificial neural networks," *IETE Journal of Research*, vol. 58, no. 2, pp. 138–154, March-April 2012. **ISI** Journal, Impact Factor: 0.2, 2012.

4. **S. M. Kamruzzaman**, and Md. Abdul Hamid, "An energy efficient multichannel MAC protocol for QoS provisioning in MANETs," *KSII Transactions on Internet and Information Systems (TIIS)*, vol. 5, no. 4, pp. 684–702, April 2011. **ISI** Journal, Impact Factor: 0.37, 2012.

5. **S. M. Kamruzzaman**, Md. Abdul Hamid, and M. Abdullah-Al-Wadud "An energy efficient MAC protocol for QoS provisioning in cognitive radio ad hoc networks," *Radioengineering* (special issue on cognitive radio communications and software defined radio), vol. 19, no. 4, pp. 567–578, December 2010. **ISI** Journal, Impact Factor: 0.739, 2012.

6. **S. M. Kamruzzaman**, and A. M. Jehad Sarkar "A new data mining scheme using artificial neural networks," *Sensors*, vol. 11, no. 5, pp. 4622–4647, May 2011. **ISI** Journal, Impact Factor: 1.739, 2012.

7. **S. M. Kamruzzaman**, "Dynamic TDMA slot reservation protocol for QoS provisioning in cognitive radio ad hoc networks," *World Academy of Science, Engineering and Technology*, vol. 70, pp. 481–488, October 2010.

8. **S. M. Kamruzzaman**, "CR-MAC: A multichannel MAC protocol for cognitive radio ad hoc networks" *International Journal of Computer Networks & Communications (IJCNC)*, vol. 2, no. 5, pp. 1–14, September 2010.

9. **S. M. Kamruzzaman**, "An energy efficient multichannel MAC protocol for cognitive radio ad hoc networks," *International Journal of Communication Networks and Information Security (IJCNIS)*, vol. 2, no. 2, pp. 112–118, August 2010.

10. **S. M. Kamruzzaman**, and Md. Monirul Islam, "An algorithm to extract rules from artificial neural networks for medical diagnosis problems," *International Journal of Information Technology (IJIT)*, vol. 12, no. 8, pp. 41–59, 2006.

11. **S. M. Kamruzzaman,** and Md. Monirul Islam, "Extraction of symbolic rules from artificial neural networks," *World Academy of Science, Engineering and Technology*, vol. 10, pp. 271–277, October 2005.

12. **S. M. Kamruzzaman,** and Chowdhury Mofizur Rahman, "Text categorization using association rule and naïve bayes classifier," *Asian Journal of Information Technology (AJIT)*, vol. 3, no. 9, pp. 657–665, September 2004.

Domestic/Other Journal Articles

1. **S. M. Kamruzzaman,** and Dong Geun Jeong, "Routing protocols for cognitive radio networks: A survey," *Journal of Information Industrial Engineering (JIIE)*, Hankuk University of Foreign Studies, Korea, vol. 16, pp. 153−169, August 2010.

2. Abdul Kadar Muhammad Masum, Mohammad Mahadi Hassan, and **S. M. Kamruzzaman,** "The most advantageous bangla keyboard layout using data mining technique," *Journal of Computer Science (JCS)*, IBAIS University, Bangladesh, vol. 1, no. 2, December 2007.

3. **S. M. Kamruzzaman,** "RGANN: An efficient algorithm to extract rules from ANNs", *Journal of Electronics and Computer Science (JECS)*, Jahangirnagar University, Bangladesh, vol. 8, pp. 19−30, June 2007.

4. **S. M. Kamruzzaman,** A. N. M. Rezaul Karim, Md. Saiful Islam, and Md. Emdadul Haque, "Speaker identification using MFCC-domain support vector machine," *International Journal of Electrical and Power Engineering (IJEPE)*, vol. 1, no. 3, pp. 274−278, 2007.

5. **S. M. Kamruzzaman**, Rashedur Rashid, and Mahfuz-Ur-Rahman, "A hardware-software co-method for low cost EPROM programmer," *International Journal of Soft Computing (IJSC)*, vol. 1, no. 2, pp. 121−127, April-June 2006.

6. **S. M. Kamruzzaman,** "Text classification using artificial intelligence," *Journal of Electrical Engineering (JEE)*, The Institution of Engineers Bangladesh, vol. EE 33, no. I & II, December 2006.

International Conference Articles (Selected)

1. **S. M. Kamruzzaman**, and Abdullah Alghamdi, "A resource reservation scheme in cognitive radio ad hoc networks for C4I systems," to be published in *Proceedings of the 28th IEEE International Conference on Advanced Information Networking and Applications (AINA-2014), Victoria, Canada, 13-16 May 2014*.

2. **S. M. Kamruzzaman**, Eunhee Kim, and Dong Geun Jeong, "Spectrum and energy aware routing protocol for cognitive radio ad hoc networks," in *Proceedings of the IEEE International Conference on Communications (ICC-2011)*, Kyoto, Japan, pp. 1−5, 5-9 June 2011.

3. **S. M. Kamruzzaman**, Eunhee Kim, and Dong Geun Jeong, "An energy efficient QoS routing protocol for cognitive radio ad hoc networks," in *Proceedings of the 13th IEEE International Conference on Advanced Communication Technology (ICACT-2011)*, Phoenix Park, Korea, pp. 344−349, 13-16 February 2011.

4. **S. M. Kamruzzaman**, and Mohammad Shamsul Alam, "Dynamic TDMA slot reservation protocol for cognitive radio ad hoc networks," in *Proceedings of the 13th IEEE International Conference on Computer and Information Technology (ICCIT-2010)*, Dhaka, Bangladesh, pp. 142−147, 23-25 December 2010.

5. **S. M. Kamruzzaman**, "Dynamic resource allocation in multiuser OFDM wireless systems: cross-layer optimization perspective," in *Proceedings of the 10th International Conference on Computer and Information Technology (ICCIT-2007)*, Dhaka, Bangladesh, 27-29 December 2007.

6. **S. M. Kamruzzaman,** and Md. Anisur Rahman, "Performance analysis of pulse shaping technique for OFDM peak to average power ratio reduction," in *Proceedings of the 12th International Conference on Human Computer Interaction (HCI International-2007)*, Beijing, China, vol. 18, pp. 73−77, 22-27 July 2007.

7. **S. M. Kamruzzaman**, Firoz Ahmed Siddiqi, Md. Saiful Islam, and Md. Emdadul Haque, "Rotation invariant face detection using wavelet, PCA, and radial basis function networks," in *Proceedings of the 12th International Conference on Human Computer Interaction (HCI International-2007)*, Beijing, China, vol. 18, 22-27 July 2007.

8. Md. Arafatur Rahman, Md. Saiful Azad, **S. M. Kamruzzaman**, and Md. Jahidur Rahman, "A performance comparison of proactive and reactive routing protocols of mobile ad hoc network (MANET)," in *Proceedings of the 9th International Conference on Computer and Information Technology (ICCIT-2006)*, Dhaka, Bangladesh, 21-23 December 2006.

9. **S. M. Kamruzzaman**, "REx: An efficient rule generator", in *Proceedings of the 4th International Conference on Electrical Engineering (ICEE-2006)*, The Institution of Engineers Bangladesh, pp. 79−82, 26-28 January 2006.

10. **S. M. Kamruzzaman**, "Extracting symbolic rules for medical diagnosis problem," in *Proceedings of the 8th International Conference on Computer and Information Technology (ICCIT-2005)*, Dhaka, Bangladesh, pp. 602−607, 28-30 December 2005.

11. **S. M. Kamruzzaman**, Farhana Haider, and Ahmed Ryadh Hasan, "Text classification using data mining," in *Proceedings of the International Conference on Information and Communication Technology in Management (ICTM-2005)*, Multimedia University, Melaka, Malaysia, 23-25 May 2005.

12. **S. M. Kamruzzaman**, and Farhana Haider, "A hybrid learning algorithm for text classification," in *Proceedings of the 3rd International Conference on Electrical and Computer Engineering (ICECE-2004)*, Dhaka, Bangladesh, pp. 577−580, 28-30 December 2004.

13. **S. M. Kamruzzaman**, Ahmed Ryadh Hasan, Abu Bakar Siddiquee, and Md. Ehsanul Hoque Mazumder, "Medical diagnosis using neural network," in *Proceedings of the 3rd International Conference on Electrical and Computer Engineering (ICECE-2004)*, BUET, Dhaka, Bangladesh, pp. 537−540, 28-30 December 2004.

14. **S. M. Kamruzzaman**, Farhana Haider, and Ahmed Ryadh Hasan, "Text classification using association rule with a hybrid concept of naive bayes classifier and genetic algorithm," in *Proceedings of the 7th International Conference on Computer and Information Technology (ICCIT-2004)*, Dhaka, Bangladesh, pp. 682−687, 26-28 December 2004.

H. SUPERVISED M. SC. ENGINEERING THESIS

1. **Md. Anisur Rahman**, "*Performance Analysis of Pulse Shaping Technique for OFDM Peak to Average Power Ratio (PAPR) Reduction*," M.Sc. Engineering Thesis, Department of Information & Communication Engineering, University of Rajshahi, Bangladesh, June 2007.

I. INTERNATIONAL CONFERENCES ATTENDED

- IEEE International Conference on Communications (ICC-2011), Kyoto, Japan, 5-9 June 2011.
- 13th IEEE International Conference on Advanced Communication Technology (ICACT-2011), Phoenix Park, Korea, 13-16 February 2011.
- 4th International Conference on Electrical Engineering (ICEE-2005), The Institution of Engineers Bangladesh, Dhaka, 26-28 January 2006.
- 8th International Conference on Computer and Information Technology (ICCIT-2005), Islamic University of Technology, Dhaka, Bangladesh, 28-30 December 2005.
- 3rd International Conference on Electrical and Computer Engineering (ICECE-2004), BUET, Dhaka, Bangladesh, 28-30 December 2004.
- 7th International Conference on Computer and Information Technology (ICCIT-2004), Brac University, Dhaka, Bangladesh, 26-28 December 2004.
- MMU International Symposium on Information and Communication Technology (M2USIC-2004), Multimedia University, Putrajaya, Malaysia, 7-8 October 2004.
- 6th International Conference on Computer and Information Technology (ICCIT-2003), Jahangirnagar University, Dhaka, Bangladesh, 19-21 December 2003.
- 4th International Conference on Computer and Information Technology (ICCIT-2001), Dhaka University, Bangladesh, 28-29 December 2001.

J. PROFESSIONAL MEMBERSHIP

- Life Fellow, The Institution of Engineers Bangladesh (IEB) F-9946
- Member, Korean Society for Internet Information (KSII)
- Member, Bangladesh Academy for Advancement of Science (BAAS)
- Member, Bangladesh Computer Society (BCS)

K. PROFESSIONAL SERVICES

Journal Reviewer:
- IEEE Communications Letters, *ISI Journal.*
- Elsevier Computer Communications, *ISI Journal.*
- KSII Transactions on Internet and Information Systems, *ISI Journal*
- Computer Science and Information Systems, *ISI Journal*
- China Communications, *ISI Journal*
- IET Networks
- WSEAS Transaction on Signal Processing

Conference Reviewer:
- IEEE Wireless Communications and Networking Conference (IEEE WCNC'13)
- The 20th International Conference on Software, Telecommunications and Computer Networks (SoftCOM'12)
- The First International Conference on Communications, Signal Processing, and their Applications (ICCSPA'13)

Member, International Program Committee:
- International Conference on Informatics, Electronics & Vision (ICIEV' 12, '13 and '14), *co-sponsored by the IEEE*

L. PERSONAL DETAILS

- Sex: Male
- Date of Birth: October 15, 1974
- Marital Status: Married (having 2 daughters)
- Permanent Resident: Canada
- Nationality: Bangladeshi