

CURRICULUM VITAE

PERSONAL AND SERVICE PARTICULAR

Name : Dr. Sharmin Parveen
Position : Associate Professor & Dean and Head
Faculty : Faculty of Allied Health Sciences
Department : Department of Health Informatics
University : Bangladesh University of Health Sciences

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ACADEMIC QUALIFICATIONS OBTAINED

(Qualification), (Institute), (Year).

Ph. D., Applied Physics, Electronics & Communication Engineering, University of Dhaka, Bangladesh (Registered with) & **Jadavpur University, India** (jointly worked with), **March 2008..**

M. Phil., Applied Physics, Electronics & Communication Engineering, University of Dhaka, Bangladesh, **2000.**

M. Sc., Applied Physics & Electronics, University of Dhaka, Bangladesh, 1992 (Result 1996).

B. Sc., Applied Physics & Electronics, University of Dhaka, Bangladesh, 1991 (Result 1994).

CAREER HISTORY

(Post), (Organization), (Period).

Associate Professor, Dean, Faculty of Allied Health Sciences, Bangladesh University of Health Sciences, 2 September 2018 till date.

Associate Professor, HOD, Department of Health Informatics, Faculty of Allied Health Sciences, Bangladesh University of Health Sciences, 1 July 2015 till August 2018.

Visiting Faculty, Computer System & Technology, Faculty of Computer Science & Information Technology(FSKTM), **University of Malaya, Malaysia**, 21 December 2010 till 31 March 2013.

Visiting Scholar, Faculty of Computer Science, University of Indonesia, 01 September, 2008 until 30 September 2009.

Research Scholar, Department of Electronics & Telecommunication Engineering, Faculty of Engineering, Jadavpur University, West Bengal, India, June 2003 until November 2007.

Assistant Professor, Department of Computer Science, Institute of Science & Technology, Bangladesh National University, June 2001 until June 2005.

Lecturer, Department of Computer Science, Institute of Science & Technology, Bangladesh National University, 15th July 1996 to June 2001.

AREA OF RESEARCH

Telemedicine, mHealth, Healthcare Management Information System, eHealth, Electronic Medical Record (EMR), Medical Image and Video Processing for Telemedicine Network, Green Computing, VANET, Big Data Analytics, Machine Learning, Multimedia Traffic for High-speed Networking.

SUPERVISION

Ph.D. Program, Establishment of ICT Based Renal Registry System for Clinical Practice and Research in Bangladesh (ongoing)

Ph.D. Program, Realistic Radio Propagation Model to Provide Communication Infrastructure for mHealth Services in the Presence of Obstacles in VANETs, 2015.

Masters Program, Depression Counselor: A Mobile App to Create Awareness among Parents for Preventing Depression in Adolescent (completed)

Masters Program, Effective Utilization of ICT based Tracking System for Maternal and Child Health Services in Rural Community of Bangladesh. (Completed)

Masters Program, Cause –Specific Mortality Fractions Among Hospital Deaths: Assessing The Data Quality of International Form of Medical Certificate of Cause of Death in Bangladesh. (Completed)

Masters Program, Factors Affecting Data Consistency between International Form of Medical Certificate of Cause of Death and DHIS2 based e-Reporting in Selected Tertiary Hospitals in Bangladesh (Completed)

Masters Program, Design Prototype of a Mobile App on Obesity Mangement. (Completed)

Masters Program, Finding out the patient needs for developing a self-management app in the context of Bangladeshi diabetic patients. (Completed)

Master's Program, Determinations of Utilization of Health Management Information System for Decision Making among the Health Manager in Bangladesh (Completed)

Master's Program, Knowledge, Attitude and Practice Of eHealth among the Doctors in Tertiary Level of Government Hospitals In Bangladesh (Completed)

Masters Program, Design and Development of a mobile App to create lifestyle Awareness and Provide Voice Remainder for Exercise and Medicine among the Diabetic Patents of Nepal (Completed)

Masters Program, Design and Development of an Effective ETL (Extract, Transform, Load) System to Increase The Interoperability Among Fragmented Digital Health Management Information System in Bangladesh (Completed)

Masters Program, Prototype Design of Web Based Electronic Application Management Software (Completed)

Masters Program, Design and Development of a mobile App to Create Lifestyle Awareness and Provide Voice Remainder for Exercise and Medicine among the Hypertension Patients of Nepal (completed).

Masters Program, Factors Affecting Provider's Satisfaction Regarding the Newly Introduced Laboratory Information System (LIS) in Armed Forces Institute of Pathology (AFIP), Dhaka (completed)

Masters Program, Utilization of Postnatal Care Services among Mother of Infant in Rural Area of Dhanusha District, Nepal (completed)

Master's Program, Knowledge and Practice of Exclusive Breastfeeding in Dhading District of Nepal and Readiness of Mobile App for awareness (completed).

Master's Program, Haemodialysis Registry for Clinical Practice and Research in Bangladesh: A Study into its Design Methodology and Baseline Characteristics.(completed)

Masters Program, Private Dental Practitioners' Readiness to Implement Electronic Oral Health Record System in Bangladesh, (completed).

Masters Program, An Improved Image Denoising and Segmentation Approach for Detecting Tumor from 2-D MRI Brain Images, Completed, 2013.

Master's Program, Applicability of RC4 Algorithm in Bluetooth Data Encryption method for achieving better Security and Energy Efficiency of Mobile Devices, Completed, 2012.

RESEARCHPROJECT

Medical Outdoor Patient Appointment System using Emerging Technology.

Funding Source: Aspire to Innovate - a2i, Ministry of Science & Technology, Government of the People's Republic of Bangladesh.

Study of Awareness, Attitude, Anxiety, Depression and Perceived Mental Healthcare needs in Bangladesh due to COVID-19 Pandemic.

Funding Source: Capacity Institutionalization Programme Proposal under Special Allocation for Science and Technology, **Ministry of Science and Technology**, Government of the People's Republic of Bangladesh.

Impact of COVID-19 on Essential Health Services in Bangladesh: A Rapid Assessment.
Funding Source: BRAC Health, Nutrition and Population Program. (Completed)

Investigating Policy Gap Related to Tobacco Advertising, Promotion and Sponsorship (TAPS) Ban in Tobacco Industry in Bangladesh (Completed)

Funding Source: Bangladesh Tobacco Control Policy Research Grant Program 2020,

Development of Novel Low Cost Technology for Screening Microvascular Complications in Diabetic Population in Bangladesh (Completed)

Funding Source: United International University Research Grant

University of Malaya Research Grant (RG071-11ICT), AN IMPROVED RATE CONTROL SCHEME FOR H.264 VIDEO CODING BASED ON REGION-OF-INTEREST WITH MEDICAL VIDEO COMPRESSION CONCERN, Completed (01/09/11- 30/11/12)

SELECTED PUBLICATIONS

M. G. Morshed, M. A. Mukit, K. Ahmed, R. Mostafa, **S. Parveen**, and A. H. Khandoker, "Heart rate variability analysis for diagnosis of diabetic peripheral neuropathy," in *IEEE TENSYP 2020*, June, 2020, Bangladesh. (IEEE Explore Digital Library)

T. A. Ahmed, M. A. Mukit, K. Ahmed, R. Mostafa, **S. Parveen**, and A. H. Khandoker, "Effective segmentation on 24-hour holter recording for classifying microvascular complications of T2DM," in *IEEE TENSYP 2020*, June, 2020, Bangladesh.

Shamim-Ara-Sarkar, HabiburRahman, Israt Jahan, **Sharmin Parveen**, Md Ranzu Ahmed, "Assessment of serum zinc level in childhood epilepsy treated with long-term Anti Epileptic Drug (AED)", *International Medical Science Research Journal*, Vol. 1(1), pp., 1-9, May 2019,

Muhammad Ahsan Qureshi, Rafidah Md Noor, Shahabuddin Shamsirand, **Sharmin Parveen**, Muhammad Shiraz, Abdullah Gani, "A Survey on Obstacle Modeling Patterns in Radio Propagation Models for Vehicular Ad Hoc Networks", *Arabian Journal for Science and Engineering*, May 2015, Volume 40, Issue 5, pp 1385-1407. (*ISI-Cited Publication*)

Mostofa Kamal Nasir, Syed Adeel Ali Shah, Rafidah Md Noor and **Sharmin Parveen**, "A Comparative Study and Stepwise Approach for Routing In Vanets", *Advances in Natural and Applied Sciences*, 8(4) April 2014, Pages: 244-253. ISSN:1995-0772 (*SCOPUS-Cited Publication*).

Ahmed Faisal, **Sharmin Parveen**, ShahriarBadsha, Hasan Sarwar, Ahmed Wasif Reza, Computer Assisted Diagnosis System in Tumor Radiography, *Journal of Medical Systems*, vol. 37, DOI: 10.1007/s10916-013- 9938-3, 2013 (published) (*ISI-Cited Publication*), March 2013.

Sharmin NaharSharwardy, **Sharmin Parveen**, Hasan Sarwar and Zahidur Rahman, "An Analysis of a Video-conference based Tele-consultation System in Bangladesh", *Journal of Telemedicine & Telecare (ISI indexed)*, 2012.

Ahmed Faisal, **Sharmin Parveen**, ShahriarBadsha and Hasan Sarwar, An Improved Image Denoising and Segmentation Approach for Detecting Tumor from 2-D MRI Brain Images, Proceedings, International Conference on Advanced Computer Science Applications and Technologies- – *ACSAT2012*, Malaysia, 2012, published in *IEEE Xplore Digital Library (ISI indexed)*.

Rajibul Alam Joarder, **S. Parveen**, H. Sarwar, S. K. Sanyal, S. Rafique, "Analysis of Real-Time Multimedia Traffic in the Context of Self-Similarity", Published in the proceedings of ICECE, International Conference on Electrical and Computer Engineering, 2009 published in **IEEE Xplore Digital Library (ISI indexed)**.

Hasan Sarwar, Sharmin Nahar Sharwardy, Zahidur Rahman, **Sharmin Parveen**, Md Sharifuzzaman, Md Nurul Akhter Hasan, "Monitoring and Prediction of ICU Patient with Pediatric Congenital Heart Disease Using Data Mining approach", Proceedings of International Conference on Computer Assisted Systems in Health, 1-2 September, 2016, Malaysia.

MdRanzu Ahmed, Dilruba Sharmin Ruma, Israt Jahan, Farzana Akter, **Sharmin Parveen**, "Assessment of the knowledge, attitude and practice of diabetes mellitus among the diabetes patients in Bangladesh", Abstract No: BU-04027 Abstract is accepted to present in **IDF Congress 2019** in Busan, South Korea 02-06 December 2019

Fatema Uddin, **Sharmin Parveen**, Effective Utilization of ICT Based Maternal & Child Health Tracking System in Community Clinic of Bangladesh, published in Proceedings of 7th International CME, Workshop & Conference CEUTEH-2017 on 'Cost Effective Use of Technology in e-Healthcare' from 11th - 13th Sep 2017 at AIIMS, New Delhi, India.

Shamim Jubayer, Kalpana Bhandari, Md. Abdullah Al Jobair, Aminul Islam, **Sharmin Parveen**, "Telemedicine in Bangladesh: An Effective Intervention for Rural Community", published in Proceedings of 7th International CME, Workshop & Conference CEUTEH -2017 on 'Cost Effective Use of Technology in e-Healthcare' from 11th - 13th Sep 2017 at AIIMS, New Delhi, India.

Md. Nazrul Islam, **Sharmin Parveen**, A M A Bhuiyan, "Haemodialysis Registry for Clinical Practice and Research in Bangladesh: A Study into its Design Methodology and Baseline Characteristics", Proceedings of 7th Regional Public Health Conference, 6-7 December 2016, Bangladesh.

M Bashidul Islam, MA Islam, **Sharmin Parveen**, Liaqut Ali, "Designing a Process Model of a Web-based Inventory Management System for the Procurement of Drugs and Medical Equipment in Bangladesh Armed Forces" in Proceedings of 7th Regional Public Health Conference, 6-7 December 2016, Bangladesh.

Sharmin Nahar Sharwardy, Zahidur Rahman, **Sharmin Parveen**, Hasan Sarwar, ASM Mobarak Hossain, "A Cost-effective Web-based Teleconsultation System", Proceedings of International Conference on Information Technology in Asia (CITA '13), 2nd to 4th July 2013 Kuching, Sarawak, Malaysia. Pp 87-90.

Sivalingham Latchmanan, **Sharmin Parveen**, "Applicability of RC4 Algorithm in Bluetooth Data Encryption Method for Achieving Better Energy Efficiency of Mobile Devices", Proceedings, 4th International Conference on Informatics and Technology, University of Malaya, 2011.

Shahida Rafique, Hasan Khaled Rouf, Hasan Mahmud, **Sharmin Parveen**, Hasan Sarwar, "Towards the Improvement of Data Rate through DMARP in FDDI Network," Published in the Dhaka University **Journal of Science, Vol. 54 (1), pp 67-69, January, 2006**.

Sharmin Parveen, R. A. Joarder, Afreen Azhari, Hasan Sarwar, Dr Shahida Rafique, "A Congestion Control Algorithm for Multimedia Traffic," pp.160-163 Lecture Notes in Computer Science, **Publisher: Springer-Verlag GmbH, ISSN: 0302-9743, Volume 3320 / 2004**, Title: Parallel and Distributed Computing: Applications and Technologies: 5th International Conference, PDCAT 2004, Singapore, December 8-10, 2004. Proceedings, ISBN: 3-540-24013-6, 2004 (**ISI indexed**).

M. Sirajul Islam, Sk.Md.Mizanur Rahman, Salahuddin M. Masum, Sharmin Parveen, Shahida Rafique, "DWDM Technology: Implementation of a Unidirectional System through Algorithmic Approach," Published in **Journal of Electrical Engineering The Institution of Engineers**, Bangladesh. Vol. EE 29, No. 2, Dec. 2001 & vol. EE 30, No. 1, June 2002.

Hasan Sarwar, **Sharmin Parveen**, and Shahida Rafique, "Wireless solutions: Rural and urban approach present and future," Proceedings of Golden Jubilee Symposium on Radio Science, INCURSI 2007, Feb 20-24, NPL, New Delhi. (**Best Paper Award**), 2007.

Sharmin Parveen, S. K. Sanyal, Shahida Rafique, "Analysis of Self-Similarity of Multimedia Traffic in a Broadband Network," published in the Proceedings of The 3rd International Conference on Computers and Devices for Communication" (CODEC-06), Kolkata, India, Dec 2006, pp. 210-213.

H. Sarwar, R.A. Joarder, A. Azhari, **S. Parveen**, S.K, Sanyal, S. Rafique, "Performance study of Wired, Wireless and Combined Approach LAN & WAN," Published in the Proceedings of the XXVIIIth General Assembly of International Union of Radio Science (URSI), 23-29 October, 2005.

H. Sarwar, R.A. Joarder, A. Azhari, **S. Parveen**, S.K, Sanyal, S. Rafique, "A Hybrid Algorithm for SATELLITE-TERRESTRIAL Network," in the XXVIIIth General Assembly of International Union of Radio Science (URSI), 23-29 October, 2005.

Shahida Rafique, Hasan Sarwar, Runa Rukhsana Khan, and **Sharmin Parveen**, "Radio Frequency Technology in Telecommunication System: Bangladesh Scenario," Published in the proceedings of the XXVIIIth General Assembly of International Union of Radio Science (URSI), 23-29 October, 2005.

Shahida Rafique, M. Anisuzzaman, Hasan Sarwar, **Sharmin Parveen**, "WiMax: The Emerging Broadband Technology for Distributing Bits from Wire line to Wireless," Presented in the Calcutta Conference (CALCON '05), December 2005.

Sharmin Parveen, Hasan Sarwar, P.Venkateswaran, S. K. Sanyal, S. Rafique, R. Nandi, "A Shortest Path Routing Algorithm for Reliable Spanning Cost Minimization," Proceedings of The 2nd International Conference on Computers and Devices for Communication", CODEC-04 January 1-3, 2004, Kolkata, India. **Won the 3rd prize among the papers presented.** 2004.

R. A. Joarder, **Sharmin Parveen**, Hasan Sarwar, Shahida Rafique, "A Satellite Based Shortest Path Routing Algorithm," Proceedings of International Conference on Physics for Understanding and Application", Dhaka, 22-24th Feb, 2004, Dhaka, Bangladesh, 2004.

M. Sirajul Islam, Sk. Md. MizanurRahman, Salahuddin M. Masum, **Sharmin Parveen**, Shahida Rafique, "DWDM Technology: Implemented on a Unidirectional System Through Algorithmic Approach," Proceedings of The Fourth International Conference on Parallel and Distributed Computing, Applications and Technologies, 2003, Chengdu, China, 2003.

S. Rafique, **S. Parveen**, A. Azhari, H Sarwar, "Mobile Communication System Engineering: Evolution toward 4G and Next," Calcutta Section, IEEE SILVER JUBILEE Celebration Program, Nov 6-7, 2003, Kolkata, India, 2003.

Sharmin Parveen, Hasan Sarwar, P.Venkateswaran, S. K. Sanyal, S. Rafique, R. Nandi, "Performance Analysis of Existing Routing Algorithm Leading to Alternate Path," Presented in the National Conference on Radio Science, organized by National Physical Laboratory, New Delhi, India, Nov 27- 29, 2003.

H. A. AnupamaRupama, **Sharmin Parveen**, Hasan Sarwar, P.Venkateswaran, S. K. Sanyal, S. Rafique, R. Nandi, "Effects of Cell Phone on Human Body: Engineering and Biological Perspective," Presenting in the National Conference on Radio Science, organized by National Physical Laboratory, New Delhi, India, Nov 27- 29, 2003.

Md. RajibulAlamJoarder, **Sharmin Parveen**, Hasan Sarwar, Shahida Rafique, "An Alternative Approach for Quick Data Transmission by Modifying OSI Layers," Proceedings of the national conference organized by Bangladesh Electronic Society, 2002.

Sharmin Parveen, Hasan Sarwar, Shahida Rafique, "A Proposed Model for a Campus LAN Using Optical Communication Link," 21st Bangladesh Science Conference of Bangladesh Association for the Advancement of Science", 2001.

Sharmin Parveen, Hasan Sarwar, Shahida Rafique, "Telecommunication at the Beginning of The New Millennium: Present Scenario and Future Trend - A model for Community LAN", proceedings of International Conference on Electrical and Computer Engineering, ICECE-2001, Jan 5-6 2001, Dhaka, Bangladesh, 2001.

LIST OF ATTENDED WORKSHOPS & SCHOOLS

7th International CME, Workshop & Conference CEUTEH-2017 on 'Cost Effective Use of Technology in e-Healthcare' from 11th - 13th Sep 2017 at AIIMS, New Delhi, India.

International Conference on Data for Decision (D4D) in Health in Bangladesh on 1-3 April, 2017.

Regional Workshop on Routine Health Information Systems: Basic Concepts and Practice, June 6 – 17, 2016, New Delhi, India.

Workshop on eHealth for Universal Coverage, 16-19 January, 2017, ICDDR,B, Dhaka , Bangladesh.

Workshop on a2i Women's Innovation Camp 2017 24th August in Prime Minister's Office.

Workshop on Ethical Issues and Practices in Implementation Research James P. Grant School of Public Health (JPGSPH), BRAC University and icddr,b (Technical Training Unit), August 1-2, 2017.

International Conference on Medical Engineering, Health Informatics and Technology (MediTec 2016) in Dhaka, Bangladesh on 17-18 December 2016.

7th Regional Public Health Conference and Rockefeller Foundation Symposium on DHIS2 for Strengthening Routine Health Information System in Bangladesh, December 2016.

Research Postgraduate Workshop: **RESEARCH SUPERVISOR TRAINING PROGRAM**, Jointly Organized by **Monash University Sunway campus & Institute of Graduate Studies (IGS)**, University of Malaya (UM), Wednesday, **20 July 2011**: 8.30am - 5.00pm, Venue: Seminar Rooms A & B, IGS, UM

WORKSHOP: **Teaching Small Group & Large Group**, organized by Academic Development Centre (ADeC), Wisma R & D, UM, **21 July 2011**.

Academicians, organized by Academic Development Centre (ADeC), **1 December 2011**.

WORKSHOP: **Xilinx FPGA with SIMULINK Training, Hands on Workshop**, organized by Activemedia Innovation SdnBhd, Unit C712, Level 7, Block C, Kelana Square, 17, Jalan SS7/26, Kelana Jaya, 47301 Petaling Jaya Selangor Malaysia, **15 December, 2011**.

Workshop on Wireless ICT in Developing Countries and 2nd Awareness Workshop on the Relevance of Wireless ICT Solutions organized **by ICTP in Trieste, Italy** from 16/02/2009 to 06/03/2009.

Workshop on IMT Advanced: Towards 4G in **University of Calcutta, India** on 07/12/2007.

Summer School on Mobile Distributed Computing in **Jadavpur University, Kolkata, India** from 17/07/2006 to 28/07/2006

Workshop on Wireless Technologies for South Asian Countries in International Institute of Information Technology, **Pune, India** from 10/10/2005 to 21/10/2005.

IEEE One-day Workshop on Managing Next Generation Networks (MNGN 2005) in **Jadavpur University, Kolkata, India** on 12/11/2005.

XXVIIIth General Assembly of International Union of Radio Science (URSI) in **New Delhi, India** from 23/10/2005 to 29/10/2005.

PROFESSIONAL AFFILIATION/MEMBERSHIP

(Organization), (Role), (Year), (Level).

OWSD (Organization for Women in Science for the Developing Country), Full Individual member, since 2005 (International)

OWSD BD National Chapter, Secretary, Since 2015

OWSD BD National Chapter, President for 2018-2022

IEEE, Member, Since 2003 (International)

IEEE COMSOC, Member, Since 2003 (International)

IEEE WIE (Women in Engineering) Affinity group, Since 2008

Bangladesh Association of Women Scientists, EC-member, since 2008 (National)

REFERENCES

Prof. Dr. Faridul Alam
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Vice-Chancellor
Bangladesh University of Health Sciences (BUHS)
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and Electronic Engineering,
University of Dhaka
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CERTIFICATION

I certify that all information stated in this CV is true and complete to the best of my knowledge. I authorize the concerned authority to verify the information provide in this CV.



(Sharmin Parveen)