



DR. MD. SHAHJAHAN ALI

CURRICULUM VITAE

PERSONAL INFORMATION

Name : Md. Shahjahan Ali
Birth Place and Date : Sirajgong (Bangladesh) March 31, 1967
Citizenship : Bangladeshi
Personal Address : House No. 94, Block- D, Housing Estate Kushtia,
Bangladesh
Professional Address : Professor, Department of Applied Physics, Electronics
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INTRODUCTION

My responsibility in Islamic University is Teaching and Research. Currently I am giving the following courses- Data Communication and Computer Networks, Wireless and Broadband Networking (wireless Ad Hoc network, wireless sensor network) and Digital Image Processing in undergraduate and postgraduate level. I take active participation in Curriculum Development of my department and many other academic & policy making forums in the

university. Also I do research in the field of Applications of Remote Sensing in Energy & Environment; Computer Communication; and Wireless Networking.

RESEARCH INTEREST

1. Satellite Image Processing (Retrieval of environmental and surface parameters from remote sensing data)
2. Data and Computer Communication
3. Computer Networking
4. Wireless communication

EDUCATION

- **PhD** in Engineering and Technology, 2011, from Dhaka University, Bangladesh. Field- Processing of Satellite Digital Images for Applications in Energy and Environment.
- **Master of Science (M.Sc. with thesis):**1989 (held in 1993) with First Class-Third Position.
Major: Applied Physics and Electronics.
- **Bachelor of Science (B.Sc. Hons.):**1988 (held in 1991) with First Class – ThirdPosition.
Major: Applied Physics and Electronics.
- **Higher Secondary Certificate (HSC- Science):**1985 with First Division.
- **Secondary School Certificate (SSC- Science):** 1983 with First Division.

TEACHING EXPERIENCE

- (1) Professor, Department of Applied Physics, Electronics and Communication Engineering, Islamic University, Bangladesh from May 2013 to continue.
- (2) Associate Professor, Department of Applied Physics, Electronics and Communication Engineering, Islamic University, Bangladesh from May 2008 to April 2013.
- (3) Assistant Professor, Department of Applied Physics, Electronics and Communication Engineering, Islamic University, Bangladesh from February 2000 to May 2008.
- (4) Lecturer, Department of Applied Physics, Electronics and Communication Engineering, Islamic University, Bangladesh from February 1997 to February 2000.
- (5) Assistant Director (Assistant Curator), National Museum of Science and Technology, Agargaon, Dhaka- from August 1995 to February 1997.

(6) Lecturer, Holy Child Public School and College, Uttara, Dhaka from July 1994 to August 1995.

TEACHING AREA - MODULES TAUGHT

- ❖ (i) Data Communication and Computer Networks (ii) Wireless and Broadband Networks (iii) Digital Image Processing. Islamic University, Bangladesh from 2008 to Continue.
- ❖ (i) Digital Electronics (ii) Computer Organization (iii) Advanced Electronic Circuits. Islamic University, Bangladesh from 2005 to 2008.
- ❖ (i) Computer Programming in C and C++ (ii) Telecommunication (iii) Communication Engineering (iv) Mathematical Methods in Physics. Islamic University, Bangladesh from 1997 to 2005.

EXPERIENCE IN PRIVATE UNIVERSITY

CSE Department, Dhaka City College from July 2005 to December 2006

EXPERIENCE IN EDUCATIONAL ADMINISTRATION

- (1) Chair, Department of Applied Physics, Electronics and Communication Engineering, Islamic University, Kushtia, Bangladesh from April 2003 to September 2004.
- (2) Chair, Department of Information and Communication Engineering, Islamic University, Kushtia, Bangladesh from May 2002 to December 2003.
- (3) Assistant Provost, S. H. Hall, Islamic University, Kushtia, from August 2001 to August 2002.

OTHER PROFESSIONAL EXPERIENCES

- ❖ **Board of Examiner of PhD Thesis** : Number of Thesis Examined- 03
Country- India
- ❖ **Reviewer** : Elsevier- Computers and Electrical Engineering
- ❖ **Technical Program Committee** : IEEE INMIC Conference 2014, Pakistan
- ❖ **Advisory Board Member** : WARSE Journals (www.warse.org)
- ❖ **Deputy Chief Editor** : NPA Journals (www.npajournals.org)

- ❖ **Reviewer** : Asian Journal of Geoinformatics
(www.geoinfo.ait.ac.th/ajg)
- ❖ **Reviewer** : Journal of Teaching and Teacher Education,
University of Bahrain
- ❖ **Editorial Board Member:** Journal of Applied Science and Technology,
Islamic University, Kushtia (for two years)
- ❖ **Reviewer** : Asian Journal of Multidisciplinary Studies
(www.ajms.co.in)

And many other international journals.

LIST OF PUBLICATIONS:

1. Eshita Afrin, Md Shahjahan Ali, 2015. Implementation of Neuron Models Using MATLAB- An Brain Inspired Artificial Intelligence. *Intl. J. Engineering and Technical Research (IJETR)*, Vol-3(10), 67-73.
2. Md Salim Raja, Md. Imran Hossain, Md. Khalid Hossain Jewel, **Md Shahjahan Ali**, 2015. PAPR Reduction of OFDM Signal Using Sequential Phase Sequence SLM Based Transceiver without Side Information. *I.J. Wireless and Microwave Technologies*, 2015 V-1, 34-42. Published online March 2015 in MECS (<http://www.mecspress.net>) DOI: 10.5815/ijwmt.2015.01.03
3. Md Khalid Hossain Jewel, **Md Shahjahan Ali**, Rahat Hossain Faisal, Md Khalilur Rahman, 2014. Implementation and Performance Evaluation of a Modified AODV Routing Protocol for wireless Ad-hoc Network. *J. Multidisciplinary Engineering Science and Technology*, Vol-1, Issue-5, pp 342-347.
4. **M. Shahjahan Ali**, H. Rahman, S.K. Aditya and R.K. Mazumder, 2013. Accuracy Assessment of a Satellite Based Method for Solar Radiation Estimation. *Dhaka Univ. J. Sci.* Vol-61, No-1, pp 71-74. DOI: <http://dx.doi.org/10.3329/dujs.v61i1.15099>
5. Mst. Ashrafunnahan Hena, **M. Shahjahan Ali** and M. Muntasir Rahman, 2013. A Simple Statistical Model to Estimate Incident Solar Radiation at the Surface from NOAA AVHRR Satellite Data. *Intl. J. Information Technology and Computer Science*, Vol-5, No-2, pp. 36-41. DOI: 10.5815/ijitcs.2013.02.04.
6. Shaikh Habiba Sultana, **M. Shahjahan Ali**, Mst. Ashrafunnahar Hena and M. Muntasir Rahman, 2013. A Simple Method of Mapping of Land Surface Temperature from Satellite Digital Images in Bangladesh. *Intl. J. Information Technology and Computer Science*, Vol-5, No-1, pp 51-57, 2013. DOI: 10.5815/ijitcs.2013.01.05.
7. **M. Shahjahan Ali**, 2013. Processing of Satellite Digital Images for Mapping Atmospheric Transmissivity in Bangladesh. *Intl. J. Information Technology and Computer Science*, Vol-5. No.4, pp 14-22. DOI: 10.5815/ijitcs.2013.04.02.

8. Radha Rani Ghosh, **Md Shahjahan Ali**, Ashrafunnahar Hena and H. Rahman, 2012. A Simple Cloud Detection Algorithm Using NOAA-AVHRR Satellite Data. *Intl. J. Sci. Engg. Res.*. Vol-3, Issue-6, pp1-5.
9. K. Fida Hasan, **M.S.Ali**, Meherun-Nessa, S.K. Aditya and R.K. Mazumder, 2011. Retrieval of Surface Reflectance from NOAA-AVHRR Satellite Data. *Dhaka University J. App. Sci. Engg.* Vol-1, No-2, pp 121-124.
10. Khondokar Fida Hasan, **Md Shahjahan Ali** and Md. Saifur Rahman, 2011. A Digital Approach of Satellite Image Processing for Retrieving Surface Parameters. *Intl. J. Engg. Res. and Appl.* Vol-1, Issue-3, pp1242-1246.
11. Md. Ariful Islam, A.K.M Fazlul Haque, **Md Shahjahan Ali**, Moheuddin Ahmed, 2011. Design and Development of a Cost Effective Laser Ray Touch Screen Technology. *J. Bangladesh Electron. Soc.*, Vol 11, No 1&2, pp51-56.
12. K. Fida Hasan, M. Maruf Morshed and **M.S.Ali**, 2010. A Satellite Based Method to Determine Land Surface Temperature from NOAA-AVHRR Digital Data. *J. Bangladesh Electron. Soc.* Vol-10, No -2, June-December 2010.
13. M. A Momin, M.A. Islam, M.A.A. Azad, **M.S. Ali** and M.R.A. Bhuiyan, 2010. Influence of Thickness on the Electrical Properties of CdS Thin Films. *J. App. Sci. Tech.*, Vol-7, No –1, pp 49-53.
14. **M.S. Ali**, H. Rahman and R.K. Mazumder, 2008. Estimation of Solar Radiation from Satellite Images for a Tropical Environment. *Intl.J. App. Environ. Sci.* Vol-3, No-3, pp 281-289.
15. M.S.Islam, M.R.A. Bhuiyan, M.M.Alam, **M.S.Ali** and S.M.Firoz Hasan, 2008. Optical Properties of Transparent Zinc Oxide Thin Films. *J. App. Sci. Tech.*, Vol 5, No 2, pp 101-105.
16. **M.S. Ali**, H. Rahman and R.K. Mazumder, 2007. Geometric Correction of NOAA-AVHRR Satellite Images for Solar Radiation Applications. *J. Bangladesh Electron. Soc.*, Vol-7, N0:1-2, pp 87-90.
17. M.A. Momin and **M.S.Ali**, 2007. Properties of Lead Sulphide Thin Films Prepared by a Low Cost Technique. *J. Bangladesh Electron. Soc.* Vol-7, N. 1-2, pp 23-26.
18. **M. S. Ali**, S.K. Aditya, A. H. Howlader and R.K. Mazumder, 2005. Performances of Statistical Model for Measuring Solar Radiation from Satellite Data. *J. Bangladesh Electron. Soc.* Vol-5, N0-1, pp 101-106.
19. M. Mehedi Hasan, M.R.A. Bhuiyan, **M.S. Ali** and S.M. Firoz Hasan, 2005. Effect of Substrate Temperature on the Optical Properties of Tellurium Thin Films. *Nuclear Science and Applications*, Vol-14, No-2, pp 83-86.
20. M.R.A.Bhuiyan, K.M.A.Sobahan, **M. S .Ali** and K.A.Khan, 2000. Temperature Effect on the Electrical Properties of Tellurium Thin films. *J. App. Sci. Tech.*, Vol-1, No-1, pp 57-60.

21. **M. S. Ali**, K.A.Khan and M.S.R.Khan, 1995. Temperature Effect on the Electrical Properties of Lead Selenide (PbSe) Thin Films. *Phys. Stat. Sol.(a)*, Vol-149, No-2, pp 611-618.
22. **Md Shahjahan Ali**, H. Rahman, S.K. Aditya and R.K. Mazumder. Environmental Characteristics of Land Surfaces from Digital Satellite Images. In Proc. International Conference on Physics for Energy and Environment, Dhaka, Bangladesh, 06-08 March 2014 (abstract published).
23. **M.S.Ali**, H. Rahman and R.K. Mazumder, Mapping of Solar Radiation for Bangladesh Using Meteorological Satellite Data. Proc. 4th Environmental Physics Conference (EPC -10) Hurghada, Egypt, 10-14 March, 2010 (abstract published).
24. **M.S. Ali**, H. Rahman, S.K. Aditya and R.K. Mazumder, Solar Resource Assessment Using Satellite Based Technique. Proc. National Seminar on Renewable Energy, Dhaka, 3 April, 2010 (abstract published).
25. **M.S. Ali**, Development of a Satellite Based Model for Solar Radiation Estimation. Proc. International Conference on 'Physics for Sustainable Development', 15-17 May, 2009, Bangladesh University of Engineering and Technology (BUET), Dhaka (abstract published).
26. **M.S. Ali**, Application of Satellite Remote Sensing Technology for Sustainable Development of Bangladesh. In Proc. International Conference on 'Physics for Sustainable Development, 15-17 May, 2009, Bangladesh University of Engineering and Technology (BUET), Dhaka (abstract published).
27. **M.S. Ali**, H. Rahman and R.K. Mazumder, Estimation of Solar Radiation in Bangladesh From NOAA-AVHRR Time Series Digital Images. In: e-Proceedings of Asian Association on Remote Sensing, 29th Asian Conference on remote sensing (ACRS-2008), 10-14 November, Colombo, Srilanka (full paper published).
28. **M.S. Ali**, H. Rahman and R.K. Mazumder, A Method to Derive Broadband Surface Irradiance from AVHRR Satellite Digital Image. Proc. National Conference of Electronics, Information and Telecommunication, Rajshahi, Bangladesh, 29-30 June, 2007 (extended abstract published).
29. M.M. Hoque and **M.S. Ali**, Solar Energy Utilization for Ironing Clothes and Dresses. Proc. (RETRUD-2003) 2nd International Conference on Renewable Energy Technology for Rural Development, Kathmandu, Nepal, 12-14 October 2003 (full paper published).
30. **M.S. Ali**, K.A. Khan and M.R. Talukder, Electrical Properties of Lead Selenide Thin Films for Selective Surface Applications, Proc. (7APPC) 7th Asia Pacific Physics Conference, Beising, China, Aug. 19-23, 1997.

Other Papers Presented in the Seminar

- **Paper Title: "State of Science and Technology in the Muslim World : Causes of Backwardness and Our Obligation"**

Date: February 10, 2011

Venue: Central Auditorium, Islamic University, Bangladesh.
Organized jointly by Islamic University and Bangladesh Institute of Islamic Thought (BIIT)

- **Paper Title: "Applications of Satellites"**
Date: April 8, 2012
Venue: App. Sc. and Tech Faculty, Islamic University
Organized by Department of Applied Physics, Electronics and Communication Engineering, Islamic University, Kushtia, Bangladesh.
- **Paper Title: "Applications of Earth Observation Satellites"**
Date: 19 June 2014
Venue: Science Auditorium
Organized by the Department of ETE, University of Liberal Arts Bangladesh (ULAB)
- **Training Course On Research Methodology**
Paper Title: "Data Collection, Processing and Analysis"
Date: 23-24 JULY, 2011
Venue: Department of Al Quran and Islamic Studies, I.U.
Organized By: Islamic University and and BIIT
- **Workshop On Epistemology And Curriculum Reform**
Paper Title: " Some Thoughts On Science, Qur'an And Curriculum Reforms"
Date: 2-3 May 2008
Venue: Islamic University, Kushtia, Bangladesh
Organized By: Islamic University and BIIT

EXPERIENCE IN RESEARCH SUPERVISION

1. PhD
Number of Students Guided: One (ongoing)
2. MPhil
Number of Students Guided: One (ongoing)
3. Master of Science (M.Sc) Thesis
Number of Students Guided: Twelve (12)
4. Bachelor of Science (B.Sc. Hons) Projects
Number of Students Guided: Twenty (30)

COMPUTER SKIL

ERDAS IMAGINE®, HDF Explorer®, GIS ArcView®, inSSIDer, NS2,
FORTRAN, Java, MATLAB, C, C++, MS-Office.

INVOLVEMENT IN IU

1. Field visit

Involved in Field Surveying visit at different Govt. and Non-government organizations and Institutes for 4th Year and MSc APECE Students.

2. Development of courses

- Prepared and updated course contents for Data Communication and Computer Networking, High Speed Wireless and Broadband Networks, and Satellite Image Processing for Environmental Applications.
- Prepared and update Laboratory manual for MSc Final Year Lab (Wired and Wireless Data Communication).

3. Development of Laboratories:

Working as Laboratory in-charge for MSC Final Year Lab. The responsibility includes Development, Operations and Maintenance of the laboratory.

4. Involvement in Islamic University Committees:

Member – Academic Council, Islamic University

Member –Executive member of Applied Science and Technology Faculty

Member- Board of Advanced Studies, Islamic University

Member- Planning and Development Committee of the Department of Applied Physics, Electronics and Communication Engineering

Member – Purchase Committee of the department of Applied Physics, Electronics and Communication Engineering

5. Other Duties Assigned by the University:

Invigilator of the examination hall

Scrutinizer for semester examination scripts

Tabulator for semester examination

SCHOLARSHIP / AWARDS

Chancellor's Scholarship for PhD Program

MEMBERSHIP IN SCIENTIFIC SOCIETIES

- Member- Bangladesh Solar Energy Society (BSES)

- Member- Bangladesh Remote Sensing Society
- Member- Bangladesh Astronomical Association
- Life Member - Bangladesh Electronics Society
- Life Member - Bangladesh Physical Society
- Senior Member- IRED

Md. Shahjahan Ali.

(Dr. Md. Shahjahan Ali)