

Mosabber Uddin Ahmed



Personal Details

Date of Birth: 30th June, 1978

Address: Dept. of Electrical and Electronic Engineering, University of Dhaka,
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Publications <http://scholar.google.com/citations?user=-zPbFLMAAAAJ&hl=en>

Research Interests

Signal Processing, Brain Signal Modelling, Wind Modelling, Time-Frequency Analysis, Multivariate Time Series Analysis, Complexity Analysis, Multiscale Entropy Analysis. Embedded Systems Design

Education

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| Oct,2015 - Aug, 2016 | Post doctoral Fellowship at the Dept. of Electrical and Electronic Engineering, Imperial College London, UK |
| Oct, 2012 | Ph.D. in Signal Processing, Dept. of Electrical and Electronic Engineering, Imperial College London, UK |
| Nov, 2006 | M.Sc. in Communications and Signal Processing, Dept. of Electrical and Electronic Engineering, Imperial College London, UK |
| 1999 | M.Sc. in Applied Physics and Electronics, University of Dhaka, Bangladesh. First Class First Position |
| 1998 | B.Sc.(Hons) in Applied Physics and Electronics, University of Dhaka, Bangladesh. First Class First Position |

Work Experience

Associate Professor in Department of Electrical and Electronic Engineering Engineering, University of Dhaka, Dhaka-1000, Bangladesh.
Duration: Feb.2014-Present

Assistant Professor in Department of Applied Physics, Electronics and Communication Engineering, University of Dhaka, Dhaka-1000, Bangladesh.
Duration: Oct.2007-Jan. 2014

Lecturer in Department of Applied Physics, Electronics and Communication Engineering, University of Dhaka, Dhaka-1000, Bangladesh.
Duration: Aug.2004-Sep.2007

Lecturer in Department of Computer Science and Engineering, City University, 40 Kemal Attaturk Avenue, Banani, Dhaka-1213, Bangladesh.
Duration: Sep.2002-Jul.2004

Lecturer in Department of Computer Science, Dhaka City College, Dhanmondi, Dhaka-1205, Bangladesh. Duration: Jul.2002-Aug.2002

Honors and Awards

Commonwealth Academic Fellowship (October, 2015 to August, 2016)

The Charles Wallace Bangladesh Trust (CWBT) grant as a contribution towards the residual costs of doctoral studies.

Commonwealth Scholarship for pursuing PhD, Oct. 2008-Mar. 2012.

Commonwealth Scholarship for pursuing MSc, Oct. 2005-Sep. 2006.

Mirza Shamsul Huda memorial gold medal for MSc result.

Dhaka University (DU) Scholarship for undergraduate (Hons) result.

Dean's award (Faculty of Science, University of Dhaka) for undergraduate (Hons) result.

Research projects

Recently got a funding from University Grants Commission (UGC) of Bangladesh for a Project "Real-Time Drowsy Driver Detection System in the Highways of Bangladesh".

Supervised MSc Students for the following theses:

- Analyzing the performance of OSPF routing protocol in Redistributive and secured single area network
- Adaptive noise cancellation from speech signals using SUSC algorithm
- Characterization of human affective states using multichannel multiscale entropy analysis (MMSE)

Teaching

Taught the following courses:

- Advanced Signal Processing
- Digital Signal Processing
- Advanced Communication Theory
- Advanced Digital Communications
- Microprocessors and Assembly Language
- Network and Information Security

Computer Skills

Programming Language: Pascal, C/C++, Matlab

LATEX, common Windows Database, Spreadsheet, and Presentation Software

CCNA course completed

Mathematical Skills

Statistics: Time Series Analysis, Stochastic Processes, Statistical Estimation and Modelling, Auto Regressive Processes, Linear and Nonlinear Regression, Maximum Likelihood

Optimisation Techniques: Fixed Point Iteration, Natural Gradient, Steepest Descent, Lagrange Multipliers.

Language Skill

Bengali (native), English (fluent)

Professional Membership

- IEEE Professional Membership
- Member of IEEE Signal Processing Society.

List of Publications:

Journals

1. M. U. Ahmed, "Complexity Analysis of Brain Electrical Activity", International Journal of Enhanced Research in Science Technology & Engineering, vol. 2, no. 11, pp. 146-152, 2013.
2. M. U. Ahmed, N. Rehman, D. Looney, T. Rutkowski, and D. P. Mandic, "Dynamical Complexity of Human Responses: A Multivariate Data-Adaptive Framework", Bulletin of the Polish Academy of Sciences: Technical Sciences, vol. 60, no. 3, pp. 433-445, 2012.
3. D. Looney, M. U. Ahmed, and D. P. Mandic, "Human-Centred Multivariate Complexity Analysis", Natural Intelligence: the INNS Magazine, vol. 1, no. 3, pp. 40-43, 2012.
4. M. U. Ahmed and D. P. Mandic, "Multivariate Multiscale Entropy Analysis", IEEE Signal Processing Letters, vol. 19, no. 2, pp. 91-94, 2012.

5. M. U. Ahmed and D. P. Mandic, "Multivariate multiscale entropy: A tool for complexity analysis of multichannel data", *Physical Review E*, vol. 84, no. 6, pp. 061918-1 - 061918-10, 2011.
6. M. U. Ahmed, "Nonlinearity Analyses of Wind Signal", *The Dhaka University Journal of Science*, vol. 56, no. 2, pp. 195-200, 2008.
7. M. U. Ahmed, Md. Shafiu Alam, A.H.M. Asadul Huq, and Farruk Ahmed, "Adaptive noise cancellation from speech signals using SUSC algorithm", *The Dhaka University Journal of Science*, vol. 54, no. 2, pp. 181-186, 2006.

Conference Papers

1. F. A. Siddiky, S. H. Atik, M. U. Ahmed, "A Pilot decontamination approach using constrained optimization and subspace method for uplink multiuser MIMO system," In *Proceedings of the 2015 International Conference on Informatics, Electronics & Vision (ICIEV)*, 15-18 June 2015, Fukuoka, Japan.
2. A. C. Mugdha, F. S. Rawnaque, M. U. Ahmed, "A study of recursive least squares (RLS) adaptive filter algorithm in noise removal from ECG signals," In *Proceedings of the 2015 International Conference on Informatics, Electronics & Vision (ICIEV)*, 15-18 June 2015, Fukuoka, Japan.
3. M. U. Ahmed, N. Rehman, D. Looney, T. Rutkowski, P. Kidmose, and D. P. Mandic, "Multivariate Entropy Analysis with Data-Driven Scales," In *Proceedings of the IEEE International Conference on Acoustics, Speech, and Signal Processing (ICASSP'12)*, pp. 3901-3904, 2012.
4. M. U. Ahmed, L. Li, J. Cao, and D. P. Mandic, "Multivariate Multiscale Entropy for Brain Consciousness Analysis," In *Proceedings of the International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC'11)*, pp. 810-813, 2011.
5. M. U. Ahmed and D. P. Mandic, "Image Fusion Based on Fast and Adaptive Bidimensional Empirical Mode Decomposition," In *Proceedings of the 13th International Conference on Information Fusion*, 26-29 July 2010, Edinburgh, UK.