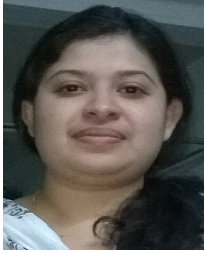Department of Electrical and Electronic Engineering
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Biography

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Dr. Monira Islam
Associate Professor
Research Area Multimedia Applications Signal and Image Processing Biomedical Engineering

Education

M.SC Eng.
  Khulna University of Enginnering & Technology,Bangladesh(2014-2016)
  Thesis Title: Classification and Mathematical Modeling of Human Emotions from EEG Signal
B.SC. Eng.
  Khulna University of Enginnering & Technology,Bangladesh(2008-2013)
HSC
  Khulna Govt. Girls College, Khulna,Bangladesh(2006-2008)
SSC
  Cantonment Public School, Jahanabad, Khulna,Bangladesh(1997-2006)

Service Records

- **Assistant Professor**
  Department/Section: EEE
  Khulna University of Engineering & Technology *From 01-01-1970 to 01-01-1970*
  Responsibility:Teaching, supervision of UG thesis and project, Related Works
- **Lecturer**
  Department/Section: EEE
  Khulna University of Engineering & Technology *From 01-01-1970 to 01-01-1970*
  Responsibility:Teaching, conducting UG thesis and project, Related Works

Research Interest

Multimedia Applications

Signal and Image Processing

Electrical Signal, Biomedical signal (EEG, ECG, PPG, EOG) Analysis, Feature Extraction, Pattern Recognition

Biomedical Engineering

Biomedical Signal Processing, Human Emotion Analysis and Modeling,Cognitive load analysis, Face Authentication, Biomedical Circuits and Sensors, Biomedical Instrumentation, Clinical Engineering, Development of Modern Health Care System

Publication

Books

Journals

9. Roy,S. , Islam,M. , Yusuf,M. S. U. and Jahan,N. (September 2022) , " EEG based stress analysis using rhythm specific spectral feature for video game play," *Computers in Biology and Medicine*, ELSEVIER, vol148, no.105849, pp.1-13

8. (February 2022) , " Faster R-CNN based Traffic Sign Detection and Classification," *WSEAS Transactions on Signal Processing*, vol18, no.1, pp.1-10

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5. Yusuf,M. S. U. and Islam,A. M. S. a. M. (2019) , " Analysis of Lightning Surge Phenomenon and Surge Arrester Performance of a 400kV Transmission System (Accepted) ," *WSEAS Transactions on Power Systems*, vol14

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Optimization," *International Journal of Electronics Communication and Computer Engineering*, vol6, no.6, pp.746-751

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1. Islam,M. , Ahmed,T. , Yusuf,M. S. U. and Ahmad,a. M. (February 2015) , " Cognitive State Estimation By Effective Feature Extraction And Proper Channel Selection of EEG Signal," *Journal of Circuits, Systems and Computers*, World Scientific Publishing Company, vol24, no.02

Conference

29. Islam,M. and Lee,T. (24-27 July, 2023) , "Functional Connectivity Analysis in Multi-channel EEG for Emotion Detection with Phase Locking Value and 3D CNN," *2023 45th Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC)* , EMB Conference Engineering in Medicine & Biology Society IEEE, pp.1-4

28. Islam,M. and Lee,T. (1-4 November, 2022.) , "Wavelet based Emotion Detection from Multi-channel EEG using a Hybrid CNN-LSTM Model," *TENCON 2022, TECH-BIZ INTELLIGENCE* , IEEE, pp.1-6

27. Mondal,S. K. , Islam,M. , Faruque,M. O. and Yusuf,M. S. T. a. M. S. U. (29-30 July, 2022.) , "Efficient Malaria Cell Image Classification using Deep Convolutional Neural Network," *1st International Conference on Information and Communication Technology for Development (ICICTD 2022)* , Springer

26. Islam,M. and Lee,T. (11-15 July, 2022.) , "Multivariate Empirical Mode Decomposition of EEG for Mental State Detection at Localized Brain Lobes," *2022 44th Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC)* , EMB Conference Engineering in Medicine & Biology Society IEEE, pp.3759-3762

25. Islam,M. and Lee,T. (11-15 July, 2022.) , "MEMD-HHT Based Emotion Detection from EEG Using 3D CNN," *2022 44th Annual International Conference of the IEEE Engineering in Medicine & Biology Society (EMBC)* , EMB Conference Engineering in Medicine & Biology Society IEEE, pp.294-297

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23. Ahmed,S. ,Walid,M. A. A. and Islam,M. (28-29 November, 2020) "EEG-based Cognitive Load assessment in MATLAB GUI and impact on Learning System," *2nd International Conference on Advanced Information and Communication Technology, ICAICT 2020* , IEEE

22. Rohan,T. I. , Yusuf,M. S. U. , Islam,M. and Roy,S. , "Efficient Approach to Detect Epileptic Seizure using Machine Learning Models for Modern Healthcare System," *IEEE Region 10 Symposium (TENSYMP)*

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20. Roy,S. , Yusuf,M. S. U. , Islam,M. and Rohan,T. I. (26-28 September, 2019) , "Age based Mood Swing Analysis and Brain Mapping for Music Genre ," *5th International Conference on Advances in Electrical Engineering (ICAEE 2019)* , IEEE

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18. Sagar,S. B. and Yusuf,M. I. a. M. S. U. (2019) , "Design and Implementation of a Hospital Based Modern Healthcare Monitoring System on Android Platform ," *International Conference on Computer, Communication, Chemical, Material and Electronic Engineering (IC4ME2-2019), Awarded as Best Paper*

17. Haque,C. A. ,Islam,M. and Saad,M. U. Y. a. A. M. (July 11~12, 2019) , "Music Evoked Brain Lobe Activation Using Spectral Features form EEG ," *International Conference on Computer, Communication, Chemical, Material and Electronic Engineering (IC4ME2-2019)*

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15. Haque,C. A. , Islam,M. , Yusuf,A. M. S. a. M. S. U. and ,(2019.) , " An Approach to Estimate the Activation of Different Bands of EEG Signal using Classified Songs," *2nd International Conference on Electrical, Computer and Communication* , (ECCE)

14. Islam,M. , Biswas,T. , Saad,A. M. and Yusuf,C. A. H. a. M. S. U. (2018.) , "A Non-Invasive Heart Rate Estimation Approach from Photoplethysmography," *International Joint Conference on Computational Intelligence (IJCCI 2018),* , Springer Nature

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3. Islam,M. , Ahmed,T. , Yusuf,M. S. U. and Ahmad,a. M. (Feb 19~21, 2014, Khulna, Bangladesh) , "Channel Selection and Feature Extraction for Cognitive State Estimation with the Variation of Brain Signal," *Proceedings of International Conference on Electrical Information and Communication Technology, EICT13*

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