

Faisal Farhan

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Ahsanullah University of Science and Technology, Dhaka-1214, Bangladesh.

EDUCATION

M.Sc in Medical Imaging and Applications

Europe

Erasmus Mundus Joint Master's Degree

September 2023 - September 2025

Université de Bourgogne, France; University of Cassino, Italy; University of Girona, Spain;

B.Sc. in Electrical and Electronic Engineering

Dhaka, Bangladesh

Ahsanullah University of Science & Technology

April 2016 - January 2021

GPA: 3.936/4.0; Rank: 1/196

Undergraduate Thesis: Study of Pattern Recognition System through the development of a Raspberry Pi based speaker recognizer.

RESEARCH INTERESTS

Signal Processing, Medical Imaging, Image Processing, Machine Learning & Applied Artificial Intelligence

PROFESSIONAL EXPERIENCES

Lecturer

June 2021 - Present

Department of Electrical and Electronic Engineering, Ahsanullah University of Science & Technology

- Prepared and delivered lectures, tutorials, workshops and seminars.
- Developed different curriculum and course materials.
- Conducted research and writing papers, proposals, journal articles.
- Attended and participated in meetings, conferences, and other events in and outside institution.
- Supervised undergraduate students.

Faculty Member

May 2021 - July 2021

School of Science, Engineering & Technology, East Delta University

- Prepared and delivered lectures, tutorials, workshops and seminars.
- Attended and participated in meetings, conferences, and other events in and outside institution.
- Supervised undergraduate students.

PUBLICATIONS

1. Thahmidul I. Nafi, Erfanul Haque, **Faisal Farhan**, Asif Rahman "High Accuracy Swin Transformers for Image-based Wafer Map Defect Detection", International Journal of Engineering and Manufacturing. [\[Paper Link\]](#)
2. **F. Farhan** and T. I. Nafi, "ANN based approach to predict criminal trends in Bangladesh", 2nd International Conference on Artificial Intelligence and Signal Processing (AISP), 2022. [\[Paper Link\]](#)
3. T. H. Rafi, R. M. Shubair, **F. Farhan**, M. Z. Hoque and F. M. Quayyum, "Recent Advances in Computer-Aided Medical Diagnosis Using Machine Learning Algorithms with Optimization Techniques", in IEEE Access. [\[Paper Link\]](#)
4. T. H. Rafi, **F. Farhan** (2021), "A Performance Evaluation of Machine Learning Models on Human Activity Identification (HAI)", 12th International Conference on Soft Computing and Pattern Recognition, Springer. [\[Paper Link\]](#)
5. T. H. Rafi, **F. Farhan**, Z. Hoque, F. Quayyum. (2020). "Electroencephalogram (EEG) brainwave signal-based emotion recognition using extreme gradient boosting algorithm", Annals of Engineering, 1(1), 0005. [\[Paper Link\]](#)
6. "Effect of Input Channel Reduction on EEG Seizure Detection", Przegląd Elektrotechniczny. [Accepted]
7. "Revival of the Lost Glory of Muslin through Identification of Phuti Karpas Plant with an Effective Approach by Using Convolution Neural Network", Smart Agricultural Technology. [Under Review]

TECHNICAL SKILLS

- Programming Languages: C++, Python, Matlab, Verilog, HTML & CSS, LATEX.
- Libraries: Pandas, NumPy, Matplotlib, Tkinter.
- Tools: Google Colab, Git, Visual Studio, Codeblocks, MATLAB, Arduino.
- Simulators: Orcad Pspice, Quartus, Proteus, Cadence.
- Design Software: Adobe Photoshop, Adobe Illustrator, Figma
- OS: Windows, Linux, Raspbian.

ACADEMIC HONORS

- Erasmus+ Joint Masters Degree (2023)
- Dean's List of Honor in all four academic years.
- Khan Bahadur Ahsanullah award (highest CGPA among all department in the graduating class, to be conferred in Convocation'13)
- Nominee for Prime minister gold medal award (Academic year 2021)

TEACHING EXPERIENCES

EEE 2285 Analog and Digital Electronics	2022
Course Instructor, Ahsanullah University of Science & Technology, Bangladesh.	
EEE 1287 Basic Electrical Engineering	2021
Course Instructor, Ahsanullah University of Science & Technology, Bangladesh.	
EEE 213 Electronic Devices and Circuit	2021
Course Instructor, East Delta University, Bangladesh.	
EEE 313 Microprocessor and Interfacing	2021
Course Instructor, East Delta University, Bangladesh.	

CONFERENCE PRESENTATIONS

- ◆ 2nd IEEE International Conference on Artificial Intelligence and Signal Processing (AISP). 2022
- ◆ 12th International Conference on Soft Computing and Pattern Recognition (SOCPAR'20). 2020

LEADERSHIP EXPERIENCES

- **Treasurer**, AUST Career Development Club 2022-2023
- **Chittagong Division Representative**, Bangladesh Development Project 2021
- **Vice President**, Ahsanullah University of Science & Technology EEE Society 2020
- **Lead Volunteer**, Youth's Voice Bangladesh 2013-2015

PROFESSIONAL AFFILIATIONS

- ◆ Institute of Electrical and Electronics Engineers(IEEE)
- ◆ IEEE WIE Bangladesh Section
- ◆ AUST Innovation & Design Club

SYNERGISTIC ACTIVITIES

- Participated in Google Hashcode 2021 programming competition. 2021
- Participant in STUDENT PROFESSIONAL AWARENESS CONFERENCE, North South University SPAC. 2018
- Participant in North South University Power Buzz programming competition 2018
- Participant in North South University Electrathon technology competition 2018
- Participant in AUST Techfiesta technology competition 2017
- Interhouse Basketball competition champion at High School 2015
- Interhouse Volleyball competition champion at High School 2014,2015