

MD. ARIFUL ISLAM

Lecturer, Department of Electrical and Electronic Engineering
Pabna University of Science and Technology (a public university), Bangladesh
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Job profile: https://www.pust.ac.bd/academic/departments/dept_teachers/dept_teachers_profile/100207

PROFESSIONAL EXPERIENCES

Lecturer of Electrical and Electronic Engineering **Mar. 2021 to till now**
Pabna University of Science & Technology, Pabna, Bangladesh. (a public financed university)

Lecturer of Electrical and Electronic Engineering **Jan. 2019 -Mar. 2021**
Pundra University of Science & Technology, Bogura, Bangladesh. (a private university)

Lecturer of Electrical and Electronic Engineering **Oct. 2015 -Feb. 2019**
Rajshahi Science & Technology University (RSTU), Natore, Bangladesh. (a private university)

Membership / Fellowship of Learned Societies, Professional Institutions and Other Noteworthy Affiliations, etc: IEEE student member with Member number: 93801743

Professional Awards / Honours Received: Received an appreciation certificate for presenting seminar on “Indoor Positioning and Navigation System using Inertial Measurement Unit” from Rajshahi Science & Technology University (RSTU), Natore.

Workshop Attended: Workshop on basic bioinformatics and hands-on Training organized by Pabna University of Science and Technology.

Supervision Thesis/Design Project at undergraduate Level since the last appointment:

Thesis title: Deep learning based Parasitic eggs detection and classification using microscopic images
No. of Students=02 **Feb. 2022-till now**

Thesis title: Mental stress analysis from EEG signal using deep learning
No. of Students=02 **Feb. 2022-till now**

Project title: Blind people assistive stick, Smart cabinet security system, Laser based security system, Earthquake detection, Automatic irrigation system, Fire alarm and intercom circuits, Automatic traffic control system, Automatic water tank control, Smart solar tracker, Performance analysis of PV Solar panel etc.
No. of Students=28 **Feb. 2017-Mar. 2022**

Contribution to the University Administration during the period the under review (last five years):

- Member of Committees formed by University Authority:
 - a) Member of Exam committee for spring 20017 semester, Fall 20019 semester.
 - b) Member of disciplinary committee for 2020-2021 session and 2021-2022 varsity admission test at Pabna University of Science and Technology.
 - c) Member of seat planning committee for 2020-2021 session varsity admission test at Pabna University of Science and Technology.
 - d) Member of pre-supply inspection committee of 1000 KVA (KVA 500x2KVA) Generator for Substation, PUST, November, 2021.
 - e) Assistant Proctor from 1st September, 2021 to 31st September at Pabna University of Science and Technology.

EDUCATION

Masters of Science (M.Sc.) in Electrical and Electronic Engineering **2023**
Rajshahi University of Engineering & Technology (RUET), Rajshahi, Bangladesh. **CGPA=3.50 (80% to below 90%) out of 4.0(=90% and above marks).**

Studies focused in Biomedical Engineering, Engineering Mathematics, Cellular Communication, Renewable Energy.

Bachelor of Science (B.Sc.) in Electrical and Electronic Engineering Mar. 2009- Mar. 2015
Pabna University of Science and Technology (PUST), Pabna-6600, Bangladesh. **CGPA 3.62 (Marks=70% to 75%) out of 4 (Position: 5th of the batch)**

Studies focused in Biomedical Engineering, Machine-I, II and III, Electronics-I, II and III Communication- I, II and III, Fundamental of Mechanical Engineering, Microwave Engineering, Microprocessor and Microcontroller System, Analog Electronics Electronic Measurements & Instrumentations, Electronic Devices & Circuits, Programming in C, MATLAB etc.

Pre-Engineering, Higher Secondary School Certificate Jun. 2006- Sep. 2008
Ahammad Uddin Shah Shishu Niketon School & College, Gaibandha, Bangladesh. **GPA 5.00 out of 5.0 (Marks=80%-100%)**

Learned basic engineering subjects such as Calculus, trigonometry, Algebra, Physics, Chemistry along with practical applications and performed a number of sciences practicals.

Academic Awards/Scholarship: Received an academic merit scholarship in Bachelor of Science (B.Sc.) in Engineering level from 2010 to 2013.

Membership: IEEE Graduate Student Member (RUET branch) of Bangladesh Section. (Member # 93801743).

RESEARCH EXPERIENCES

Conference papers and Proceedings

- i. A. Islam, A. K. Sarkar, and T. Ghosh, "EEG signal classification for mental stress during arithmetic task using wavelet transformation and statistical features," *2021 Int. Conf. Autom. Control Mechatronics Ind. 4.0, ACMI 2021*, Jul. 2021, doi: 10.1109/ACMI53878.2021.9528230.
- ii. A. Islam, A. K. Sarkar, and T. Ghosh, "Comparative Study of the Effect of Various Color Models on Classification of Parasitic Eggs," *4th Int. Conf. Electr. Comput. Telecommun. Eng. ICECTE 2022, 2022*, doi: 10.1109/ICECTE57896.2022.10114481.

Journal paper

- i. **Md. Ariful Islam**^{1*}, Ajay Krishno Sarkar¹, Md. Imran Hossain², Md. Tofail Ahmed³, A. H. M. Iftekharul Ferdous⁴, "Prediction of Attention and Short-Term Memory Loss by EEG Workload Estimation," *J. Biosci. Med.*, vol. 11, no. 4, pp. 304–318, Apr. 2023, doi: 10.4236/JBM.2023.114022. (Web of Science Index).
- ii. A. Al. Mamun¹, M. S. Hossain², P. P. Em³, A. Tahabilder⁴, R. Sultana⁵, **M. A. Islam**⁶, "Small intestine bleeding detection using color threshold and morphological operation in WCE images," *Int. J. Electr. Comput. Eng.*, vol. 11, no. 4, pp. 3040–3048, 2021. (SJR Scimago Ranked Q3)
- iii. Md. Imran Hossain^{1*}, **Md. Ariful Islam**², Md. Tofail Ahmed³, Md. Humaun Kabir⁴, "Design of a High-Gain 2×1 Array Antenna for S-Band Applications," *World J. Eng. Technol.*, vol. 11, no. 2, pp. 293–302, Mar. 2023, doi: 10.4236/WJET.2023.112021. (Web of Science Index)
- iv. A. H. M. Iftekharul Ferdous, Mittamidi Madhusudhan Reddy, Twana Mohammed Kak Anwer, Md. Shamim Anower, Prince Jain, Ahmmad Musha, Md. Ariful Islam, Shaik Hasane Ahammad, Md. Amzad Hossain*, Ahmed Nabih Zaki Rashed* and Hassan Ibrahim, "Optical communications with guided wave fibers with rectangular cladding for fuel adulteration detection," *J. Opt. Commun.*, Apr. 2023, doi: 10.1515/JOC-2023-0058/XML. (SJR Scimago Ranked Q3)
- v. **Md. Ariful Islam**^{1*}, Md. Tofail Ahmed², Md. Imran Hossain³, Md. Humaun Kabir⁴, Sujit Roy⁵, "Face Recognition Based Physical Layer Security System for Next-Generation Wireless Communication," *World Journal of advanced Research and Reviews*, Vol. 18, Issue 3, June 2023.
- vi. A. H. M. Iftekharul Ferdous, Pretom Sarker, Md. Galib Hasan, Md. Ariful Islam, Ahmmad Musha, Twana Mohammed Kak Anwer, Shaik Hasane Ahammad, Ahmed Nabih Zaki Rashed, Mahmoud M. A. Eid & Md. Amzad Hossain, "Design of a Terahertz Regime-Based Surface Plasmon Hybrid Photonic Crystal Fiber Edible Oil Biosensor". *Plasmonics* (2023). <https://doi.org/10.1007/s11468-023-01917-7>. (SJR Scimago Ranked Q3).

- vii. **Md. Ariful Islam**^{1*}, Md. Imran Hossain², Md. Tofail Ahmed³, Md. Humaun Kabir⁴, Sujit Roy⁵, “EEG Workload Estimation for Simultaneous Task Using Deep Learning Algorithm,” World Journal of advanced Research and Reviews, 2023-1142.pdf, 18, 3, 6 2023.

Consecutive research and teaching experience

- viii. Current research supervisor at Bachelor of Science in Engineering level **Feb. 2022-till now**
ix. One-year active research student at Bachelor of Science in Engineering level **Feb. 2014-Mar. 2015**
x. More than seven years teaching experience in university level **Oct. 2015-till now**

SKILLS AND EXPERTISE

- Moderate knowledge on Programming language C/C++, Python, MATLAB coding as well as HTML along with WordPress web page design.
- Extensive knowledge on Signal Processing, Feature Extraction, Machine Learning by MATLAB classifiers learners and GUI along with Circuit Simulator MATLAB/Simulink and Proteus.
- Engineering drawing by Microsoft Visio, AutoCAD.
- Clear designing ideas of circuit and PCB schematics and layouts over SPICE.
- Skilled at single layer PCB fabrication and soldering.
- Strong Communication Skill, Problem Solving Skill, Ability to work with cross a sectional team.
- Professional experiences in project management, time management, and quality management along with adopting the easiest way to deliver my class lectures.

ENGLISH LANGUAGE PROFICIENCY

- English is the medium of my lecturing, student’s continuous assessment and examining answer scripts. **Oct. 2015- till now**
- Medium of instruction at Masters of Science in Engineering level **Mar. 2017- Mar. 2021**
- Medium of instruction at Bachelor of Science in Engineering level **Mar. 2009- Mar. 2015**

RESEARCH INTERESTS

Electroencephalogram (EEG) and Human Brain Interface, Biomedical Signal Processing, Artificial Intelligence (AI), Machine Learning and Deep Learning, Data Analysis, Photonics and Biomedical Image Processing, .

Name and Address of Three References with contact number:

a) Name: Dr. Ajay Krishno Sarkar

Position: Professor, Department of Electrical and Electronic Engineering

Relationship: Academic Relationship (M.Sc. Supervisor),

Institute: Rajshahi University of Engineering & Technology (RUET)

E-mail: aksarkar@eee.ruet.ac.bd (Office); sarkarajay139@gmail.com (Personal).

Contact No: +880 1792202808

(b) Name: Dilip Kumar Sarker

Position: Professor, Department of Electrical and Electronic Engineering

Relationship: Academic and professional Relationship

Institute: Pabna University of Science and Technology (PUST)

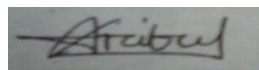
Contact No +8801712102477 (Personal)

E-mail ID dks_ms.eee@pust.ac.bd (Office); dks_ms@yahoo.com (Personal)

Address: Rajapur. Pabna, Bangladesh

Any other extra curriculum activities: Playing cricket, football, badminton, swimming, singing and debating.

I certify that the statements made above are correct.



Applicant's signature