

# Khondoker Mirazul Mumenin

Gollamari, Khulna, Bangladesh

01626279899 | k.mirazulmumenin@gmail.com | github.com/Mirazul29 | linkedin.com/in/khmirazul | Kh. Mirazul Mumenin

## Education

### Khulna University, Khulna-9208, Bangladesh

Bachelor of Science (B.Sc.) in Electronics and Communication Engineering Discipline.

• CGPA: 3.72 / 4.00

Khulna, Bangladesh

Jan 2018 - Feb 2023

## Work Experience

### Imperial College of Engineering, Affiliated by Rajshai University

Adjunct Lecturer

- Design and deliver course materials.
- Assess and evaluate student performance.
- Stay up-to-date with developments in the field.
- Collaborate with colleagues.

Khulna, Bangladesh

March 2023 - Ongoing

### Prime Net Limited

Engineering Intern

- Installation and manage of VMware WorkStation 16.
- Installation and manage of FortiGate Next Generation Firewall VM.

Dhaka, Bangladesh

January 2021 - February 2021

## Publications

- **KM Mumenin**, P. Biswas et al. "A Modified Aquila-Based Optimized XGBoost Framework for Detecting Probable Seizure Status in Neonates." Sensors 2023, 23(16), 7037; <https://doi.org/10.3390/s23167037>.
- T.Tahsin, **KM Mumenin**. et al. "GWO-XGB: Grey Wolf Optimization-based eXtreme Gradient Boosting for Hypertension Prediction in Bangladesh." Proceedings of International Conference on Electronics, Communications and Information Technology, ICECIT 2021. doi:10.1109/ICECIT54077.2021.9641256.
- **KM Mumenin**, K. M. et al. "COVID-19 Fake News Detection on social media." 6th International Conference on Computer, Communication, Chemical, Materials and Electronic Engineering, IC4ME2 2021 (2021) doi:10.1109/IC4ME253898.2021.9768523.
- MS Islam, MA Awal, JN Laboni, FT Pinki, S Karmokar, **KM Mumenin**. et al. "HGSORF: Henry Gas Solubility Optimization-based Random Forest for C-Section prediction and XAI-based cause analysis." Comput Biol Med 147, 105671 (2022).
- JA Faysal, ST Mostafa, JS Tamanna, **KM Mumenin** et al. "XGB-RF: A Hybrid Machine Learning Approach for IoT Intrusion Detection." Telecom 2022, Vol. 3, Pages 52-69 3, 52-69 (2022).
- MM Arifin, MA Based, **KM Mumenin**, A Imran. et al. "OLGBM: Optuna Optimized Light Gradient Boosting Machine for Intrusion Detection." 6th International Conference on Computer, Communication, Chemical, Materials and Electronic Engineering, IC4ME2 2021. doi:10.1109/IC4ME253898.2021.9768555.
- K Debjit, MS Islam, MA Rahman, FT Pinki, **KM Mumenin**, Md Abdul Awal. "An Improved Machine-Learning Approach for COVID-19 Prediction Using Harris Hawks Optimization and Feature Analysis Using SHAP." Diagnostics 2022, Vol. 12, Page 1023 12, 1023 (2022).

## Undergrad Thesis

**Thesis Topic:** A Modified Aquila-Based Optimized XGB Framework for Detecting Probable Seizure in Neonates.

**Area:** Biomedical, Optimization, Machine Learning, Artificial intelligence.

**Publications:** 1 [Under development].

**Supervisor:** Dr. Abdullah Al Nahid, and Dr. Abdul Awal.

**Period:** April 2022 – February 2023.

## Skills

**Programming** Python (Pandas, PyTorch, NumPy, Scikit-learn, klearn, tensorflow. etc.), R (ggplot2), MATLAB, C/C++, HTML/CSS, JavaScript.

**Miscellaneous** Linux, Windows OS, Shell (Bash/Zsh), Latex, Mail Merging, Microsoft Office, Git.

**software** MATLAB, Arduino IDE, Anaconda, COMSOL 5.a, Porteus, Simulink, Electronics Work Bench

**Hardware** Embedded Circuits Design, FPGA, Raspberry pi, and Arduino.

**Soft Skills** Time Management, Teamwork, Problem-solving, Documentation, Engaging Presentation.

## Research Interests

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- Machine learning
- Deep learning
- Robotics
- Data Science
- Reinforcement Learning
- Computer Vision

## Honors and Awards

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- **Board Scholarship**, Barisal Board -2017
- **Winner**, Amrita Lal Dey College Quiz Competition -2016

## Affiliations

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- **Vice President**, ROUTER, Club of ECE,2021 – 2022 (1 year)
- **Student Member**, IEEE, 2020-2022 (2 years)
- **Volunteer**, International Conference on STEM and the Fourth Industrial Revolution (ICSTEM4IR 2022)
- **Joint Secretary**, Barisal Associations, Khulna University, 2021-2022 (1 year)
- **Member**, BADHON, A Blood Donation Organization,2018-Present)

## Core Courses

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<b>Programming</b>	4.5 credits of C.
<b>Electronics</b>	23.25 credits of Electronics and Circuits, 10.5 credits on DLD, 3.75 credits on Micro-processor.
<b>Mathematics</b>	16 credits (Calculus, Differential Equation, Probability and Stochastic, Geometry and Vector Analysis, Matrix and complex variable.
<b>Communication</b>	23.75 credits (Communication Theory, Optical Fiber Communication, Radar and Satellite Communication, Antenna, Telecommunication, Mobile Communication).
<b>Computational</b>	3 credits on DSP, 3.75 credits on Numerical analysis, 6 credits on Linear system and Control theory.

## IELTS Academic Scores

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**7.5/9.0** Listening – 7.5/9.0, Writing – 6.5/9.0, Reading - 8.5/9.0, Speaking -6.5/9.0, CEFR Level: C1.

## References

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Dr. Abdullah-AL Nahid,  
Professor, Electronics and Communication Engineering Discipline,  
Khulna University, Khulna-9208, Bangladesh.  
Email: nahid.ece.ku@gmail.com,nahid@ece.ku.ac.bd

Dr. Md. Abdul Awal  
Professor, Electronics and Communication Engineering Discipline,  
Khulna University, Khulna-9208, Bangladesh.  
Email: m.awal@ece.ku.bd