RABAB KHAN RONGON

Dhaka-1360, Bangladesh || rababrongon@gmail.com || (+880) 1760 533424 || https://rababrongon.me ${\ensuremath{\boxtimes}}$

RESEARCH INTEREST

Human Computer Interaction, Artificial Intelligence, Machine Learning, Software Engineering.

ACADEMIC CREDENTIALS

M.Sc. Military Institute of Science and Technology, Dhaka, Bangladesh

April 2024 - Continuing
Department: Computer Science and Engineering || Major: Artificial Intelligence || CGPA: 3.50

Selected Course Work: Advanced AI, Advanced ML, Neural Networks, Data Mining, Fuzzy Logic, HCI

B.Sc. International University of Business Agriculture and Technology, Dhaka, Bangladesh

Department: Computer Science and Engineering || CGPA: 3.21 out of 4.00 *Graduation: Jan 2024 Selected Course Work:* OOP in C++, Data Structure & Algorithm, DBMS, Software Engineering, System Design, Theory of Computation, Computer Architecture, Operating Systems, Micro-processor.

PUBLICATIONS

Undergraduate Thesis

[1] Implementation of Energy Efficiency Cloud Data Center Architecture Model using Green Cloud Simulator for National Data Center of Bangladesh

Supervised by: Krishna Das

Journal Paper

- [2] Rabab Khan Rongon, Krishna Das, "An Energy Efficient Cloud Data Center Architectural Model for the National Data Center of Bangladesh" in "Journal of Discrete Mathematical Sciences and Cryptography", Volume 27, Issue 6, Page 1905-1917 (Scopus Indexed Q1 Quartile, Cite Score: 3.1)
- [3] M.A Eti, Rabab Khan Rongon, "Investigating tRNA-Derived Small RNA Expression Patterns and Bioinformatics Analysis in Epicardial Fat of Atrial Fibrillation Patients" in International Journal for Research in Applied Science and Engineering Technology (IF: 7.538)

Book Chapter

[4] A. Islam, S. Zaman, Rabab Khan Rongon, S.T. Sharif, H. Jahan, "An Attention-Driven Deep Learning Model for Predicting Human Life Expectancy" in 3rd International Conference on Big Data, IoT and Machine Learning (BIM 2025). (In Press)

Conference Paper

- [6] Rabab Khan Rongon, S.K. Prangon, K.Das, S.T. Sharif, A. Ashraf, "Evaluating the Accessibility of Online Pharmacies' Mobile Applications in Bangladesh using Heuristic and Semiotic Analysis" in 2025 IEEE International Conference on Quantum Photonics, Artificial Intelligence, and Networking
- [7] Rabab Khan Rongon, S.K. Prangon, K.Das, S.T. Sharif, A. Ashraf, "Improving CAPTCHA Systems for Better Usability and Accessibility in Mobile Applications" in IEEE 2nd International Conference on Computing, Applications, and Systems. (Accepted)
- [8] Rabab Khan Rongon, Krishna Das, "Obstacle for implementing sustainable computing in Bangladesh and approach to being sustainable through green cloud computing methodology" in 4th International Conference on Sustainable Computing and Management (SUSCOM-2022) Aug. 23-24, 2022.

MANUSCRIPTS UNDER REVIEW

- [8] Enhancing Maritime Fuel-use Efficiency and Reduction of Carbon Emission: An Experient with Deep Reinforcement Learning Agent under review Gazi University Journal of Science.
- [9] Energy-Aware Data Center Management: A Sustainable Approach to Reducing Carbon Footprint under review in Next Energy (Science Direct; Cite Score: 1.3).
- [10] A Real-Time Automated Traffic Violations Detection System for Motorcycles Using YOLOR under review for the 4th IEEE International Conference on Robotics, Automation, AI and Internet-of-Things.
- [11] Deep Learning-Based Recognition of Bangla Sign Language Gestures with CNN, VGG16, and MobileNet under review for the IEEE Conference on Biomedical Engineering, Computer and Information Technology for Health 2025
- [12] Predicting Renewable Energy Usage in Bangladesh Using Environmental and Climatic Indicators: A District-Level Analysis under review for the 28th IEEE International Conference on Computer and Information Technology

PROFESSIONAL EXPERIENCE

RESEARCH EXPERIENCE

Miyan Research Institute, IUBAT

Jan 2024 – Oct 2024

TEACHING EXPERIENCE

IUBAT- International University of Business Agriculture and Technology

Feb 2021 – July 2022

Department of Computer Science and Engineering

TA – Teaching Assistant of Fundamentals of Electronics

Solution Center of Science and Mathematics

Feb 2019 – Feb 2022

Founder and Senior Instructor of ICT

TECHNICAL SKILLS

- Programming & Scripting Languages: Python, C++, MATLAB, SQL
- Machine Learning & Data Mining: scikit-learn, pandas, NumPy, TensorFlow.
- Research & Simulation Tools: MATLAB, Green Cloud Simulator, CloudSim, NS2
- Data Visualization & Analytics: Power BI, Excel, Google Data Studio, Python Visualization Libraries
- UX & Accessibility Evaluation: Heuristic Evaluation, Semiotic Analysis, UX Audits, Figma.
- Automation & Quality Assurance: Selenium, Postman, REST Assured, Swagger.
- Cloud & Database Technologies: MySQL, MongoDB, AWS (basic)
- Version Control & DevOps: Git, GitHub, Jenkins (CI/CD)
- Academic Writing & Reference Tools: LaTeX, Overleaf, Microsoft Office

SCHOLARSHIPS

• **Professor Mahmuda Khanam Scholarship:** For Academic performance at IUBAT Fall 2020

• **RL** (**Bob**) **Southern Scholarship:** For Academic performance at IUBAT

Summer 2021

• Undergraduate Research Publication Grant from Miyan Research Institute, IUBAT Fall 2024

REFERENCES

Dr. Muhammad Hasibur Rashid Chayon

Associate Professor of Computer Science, International University of Business Agriculture & Technology

Email: chayon@iubat.edu

Letter of Recommendation □

Mr. Krishna Das

Assistant Professor of Computer Science, International University of Business Agriculture & Technology

Email: krishna.das@iubat.edu

Letter of Recommendation □

Lt Col Muhammad Nazrul Islam, PhD

Associate Professor of Computer Science and Engineering, Military Institute of Science and Technology Email: nazrul@cse.mist.ac.bd