

# RABAB KHAN RONGON

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## RESEARCH INTEREST

Human Computer Interaction, Artificial Intelligence, Machine Learning, Software Test 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: 3.38  
*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, Microprocessor.

## 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 ☐

### *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). (Accepted)

### *Conference Paper*

[5] **Rabab Khan Rongon**, M. Akhteruzzaman, S.T. Sharif, K. Das, “***Analyzing Risk Level from RoI and VoI for Robust Data Privacy using Fuzzy Inference System***” in “IEEE 4th International Conference on Robotics, Electrical and Signal Processing Techniques 2025 ☐

- [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.T. Sharif, A. Ashraf, M.N Islam “*Improving CAPTCHA Systems for Better Usability and Accessibility in Mobile Applications*” in IEEE 2nd International Conference on Computing, Applications, and Systems ☐
- [8] **Rabab Khan Rongon**, MS Zaman, S.T. Sharif, S.K Prangon, K.Das “*Deep Learning-Based Recognition of Bangla Sign Language Gestures with CNN, VGG16, and MobileNetV2*” in 6th IEEE International Conference on Telecommunications and Photonics (ICTP) 2025. ☐
- [9] S.K. Prangon, **Rabab Khan Rongon**, K.Das, S.T. Sharif, A. Ashraf, “*A Real-Time Automated Traffic Violations Detection System for Motorcycles Using YOLOR*” in 4th IEEE International Conference on Robotics, Automation, Artificial-intelligence and Internet-of-Things. (Accepted)
- [10] A. Islam, M. Akhteruzzaman, S. Sultana, **Rabab Khan Rongon** “*Predicting Renewable Energy Usage in Bangladesh Using Environmental and Climatic Indicators: A District-Level Analysis*” in 2026 IEEE 2nd International Conference on Quantum Photonics, AI & Networking. (Accepted)
- [11] **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

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- [12] *Enhancing Maritime Fuel-use Efficiency and Reduction of Carbon Emission: An Experient with Deep Reinforcement Learning Agent* – under review Engineering Applications of Artificial Intelligence
- [13] *Energy-Aware Data Center Management: A Sustainable Approach to Reducing Carbon Footprint* – under review in Discrete Mathematics & Theoretical Computer Science
- [14] *Entropy-Based Profiling of Transcriptomic Organization in Antibiotic-Resistant and Susceptible Escherichia coli* – under review in International Journal of BioAutomation

## POSTER PRESENTATION

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- [1] M.A Eti, **Rabab Khan Rongon**, “*AI-Driven Early-Warning System for Building Community Health Resilience*” in 5th IEEE International Symposium on Social Implications of Sustainable Technology (SympSIST 2025) ☐
- [2] **Rabab Khan Rongon**, “*Implementation of Energy Efficiency Model for Cloud based Data Center in Bangladesh*” in IUBAT Innovative Idea Manifest (IIIM 2022) ☐

PROFESSIONAL EXPERIENCE

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|--------------------------------------------------------------------------------------|-----------------------------|
| Tixio Technologies AS<br><i>Senior Software Engineer (Head of QA and Automation)</i> | <i>Jan 2026 – Present</i>   |
| AskTuring AI Inc.<br><i>Software Engineer III, AI Model Testing</i>                  | <i>July 2025 – Dec 2025</i> |
| Agency Handy<br><i>Software Engineer II, QA</i>                                      | <i>Aug 2023 – July 2025</i> |
| Onethread Technologies Limited<br><i>Software Engineer, QA</i>                       | <i>Feb 2022 – July 2023</i> |

RESEARCH EXPERIENCE

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|-------------------------------------------------------------------|----------------------------|
| Miyan Research Institute, IUBAT<br><i>RA – Research Assistant</i> | <i>Jan 2024 – Oct 2024</i> |
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TEACHING EXPERIENCE

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| IUBAT- International University of Business Agriculture and Technology<br><i>Department of Computer Science and Engineering</i><br><i>TA – Teaching Assistant, CSC 231 - Fundamentals of Electronics</i> | <i>Feb 2021 – July 2022</i> |
| Solution Center of Science and Mathematics<br><i>Founder and Senior Instructor of ICT</i>                                                                                                                | <i>Feb 2019 – Feb 2022</i>  |

TECHNICAL SKILLS

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| <ul style="list-style-type: none"><li>• <b>Programming &amp; Scripting Languages:</b> Python, C++, MATLAB, SQL</li><li>• <b>Machine Learning &amp; Data Mining:</b> scikit-learn, pandas, NumPy, TensorFlow.</li><li>• <b>Research &amp; Simulation Tools:</b> MATLAB, Green Cloud Simulator, CloudSim, NS2</li><li>• <b>Data Visualization &amp; Analytics:</b> Power BI, Excel, Google Data Studio, Python Visualization Libraries</li><li>• <b>UX &amp; Accessibility Evaluation:</b> Heuristic Evaluation, Semiotic Analysis, UX Audits, Figma.</li><li>• <b>Automation &amp; Quality Assurance:</b> Selenium, Postman, REST Assured, Swagger.</li><li>• <b>Cloud &amp; Database Technologies:</b> MySQL, MongoDB, AWS (basic)</li><li>• <b>Version Control &amp; DevOps:</b> Git, GitHub, Jenkins (CI/CD)</li><li>• <b>Academic Writing &amp; Reference Tools:</b> LaTeX, Overleaf, Microsoft Office</li></ul> |  |
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SCHOLARSHIPS AND AWARDS

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| • <b>1st Runner Up at IEEE SympSIST 2025:</b> For Presenting Poster                  | <i>Dec 2025</i>    |
| • <b>Research Publication Grant:</b> Awarded by Miyan Research Institute, IUBAT      | <i>Dec 2024</i>    |
| • <b>SUSCOM 2022 Conference APC Grant:</b> Awarded by Miyan Research Institute IUBAT | <i>March 2022</i>  |
| • <b>Professor Mahmuda Khanam Scholarship:</b> For Academic performance at IUBAT     | <i>Fall 2020</i>   |
| • <b>RL (Bob) Southern Scholarship:</b> For Academic performance at IUBAT            | <i>Summer 2021</i> |

## REFERENCES

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**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