

Md. Mehedi Hassan

Portfolio: www.mhashiq.me

Location: Home 291, Phase-2, Road 4, Sonadanga, Khulna 9100, Bangladesh

Email: mehedihassan@ieee.org

Mobile: +880 1902 624 501



BIOGRAPHY

Md. Mehedi Hassan is current student of M.Sc. in Computer Science and Engineering, Khulna University, Khulna, Bangladesh. Mehedi conducts research in the disciplines of biomedical engineering and data science. His research interests are predictive analysis and expert system development. He has 22 publications and he is working as peer reviewers to 10 prestigious journals. Mehedi collaborates with internal researchers because he believes that without research, innovation is impossible. He is a trainer for the course platform VCourse. In the past two years, he has trained more than 200 students.

EDUCATION

- **Khulna University, Khulna, Bangladesh** Khulna 9208, Bangladesh
Masters of Science - Computer Science and Engineering January 2023 - Now
Courses: Advance probability and Statistics, Advance Software Engineering, Research Methodology
- **North Western University** Khulna 9000, Bangladesh
Bachelor of Science - Computer Science and Engineering; GPA: 3.48 (Out of 4.00) January 2018 - July 2022
Courses: Operating Systems, Data Structures, Digital Logic Circuit Design, Artificial Intelligence, Machine Learning, Networking, Databases
- **Cantonment College, Jessore** Cantonment College Rd, Jashore 7400, Bangladesh
Science; GPA: 4.67 (Out of 5.00) May 2014 - July 2016
- **Akij Collegiate School** Jessore - Benapole Hwy, Navaron 7432, Bangladesh
Science; GPA: 5.00 (Out of 5.00)* Jan 2012 - March 2014

SKILLS SUMMARY

- **Languages:** Python, R, PHP, C, C++
- **Frameworks:** ShinyApp, Flask
- **Tools:** MySQL, SQLite
- **Platforms:** Web, Windows, Arduino
- **Soft Skills:** Leadership, Project Management, Event Management, Writing, Public Speaking, Time Management

EXPERIENCE

- **VRD Research Lab** Khulna, Bangladesh
Founder & Lab Head July 2022 - Present
 - **Supervisor:** Supervising international students and researchers in the preparation of research manuscripts using the correct methodology.
 - **Lab Management:** Facilitating essential maintenance, establishing equipment for researchers, and maintaining the research workflow so that deadlines and benchmarks are met.
- **The Virtual BD IT Firm** Khulna, Bangladesh
Founder & Chief Executive Officer(CEO) May 2019 - Present
 - **Making Important Business Decisions:** Working with the board of directors and other executives to establish short-term objectives and long-range goals, and related plans and policies.
 - **Discussion Forum:** Evaluating the work of other executive leaders within the company, including directors, vice presidents, and presidents
- **Vcourse** Khulna, Bangladesh
Founder & Trainer October 2021 - Present
 - **Course Topic:** Data Science, R, Python
 - **Total Student's Trained:** 200+
 - **Total Student's Publications:** 11

PROJECTS

- **NeedNow: Android Application for Khulna Blood Donors and Seekers:** Android Application for blood seekers. Seekers can easily track location and donors contact information from this application. Tech: Java, Android Application, API. (August '19)
- **DiabTest (Online Diabetic Predict by Web & Android Application) :** Research oriented, open source, for classifying diabetic penitent . Tech: R, ShinyApp, Android Studio, Java, (March '20)
- **MSP Depression Scale (MSPDS): Analysis, Development and validation of a self-rating depression scale from human cognitive self-statements in depression:** Using data from a number of universities, this study was able to identify the most important student outcomes. Depression's negative impacts can be observed in the patient's daily life, at school, at work, and in their personal relationships. We developed the depression measurement scale based on Cognitive Science.

PUBLICATIONS

Journal Articles

- **Computational Intelligence and Neuroscience, Hindawi (Impact Factor: 3.120):** S. Aung, M. Hassan, M. Brady, Z. Mannan, S. Azam, A. Karim, S. Zaman and Y. Wongsawat, "Entropy-Based Emotion Recognition from Multichannel EEG Signals Using Artificial Neural Network", Computational Intelligence and Neuroscience, vol. 2022, pp. 1-13, 2022. (Scopus Indexed)
- **Innovations in Systems and Software Engineering, Springer (Impact Factor: 1.073):** M. Hassan, S. Zaman; S. Mollick; Md. Hasan; M. Raihan; C. Kaushal, "An efficient Apriori algorithm for frequent pattern in human intoxication data", Innovations in Systems and Software Engineering (Scopus Indexed)
- **Computation, MDPI (Impact Factor: 2.55):** F. Yasmin, M. Hassan, S. Zaman, S. Aung, A. Karim and S. Azam, "A Forecasting Prognosis of the Monkeypox Outbreak Based on a Comprehensive Statistical and Regression Analysis", Computation, vol. 10, no. 10, p. 177, 2022. (Scopus Indexed)
- **Bioengineering, MDPI (Impact Factor: 5.046):** M. Raihan, M. Hassan, T. Hasan, A. Bulbul, M. Hasan, M. Hossain, D. Roy and M. Awal, "Development of a Smartphone-Based Expert System for COVID-19 Risk Prediction at Early Stage", vol. 9, no. 7, p. 281, 2022. (Scopus Indexed)
- **Healthcare Analytics, Elsevier:** M. Hassan, S. Mollick and F. Yasmin, "An unsupervised cluster-based feature grouping model for early diabetes detection", Healthcare Analytics, vol. 2, p. 100112, 2022. (Scopus Indexed)
- **Human-Centric Intelligent Systems, Springer:** M. Hassan, Hassan M, Akter L et al. (2021) Efficient Prediction of Water Quality Index (WQI) Using Machine Learning Algorithms. Human-Centric Intelligent Systems 1:86. doi: 10.2991/hcis.k.211203.001 (Scopus Indexed) (**Best paper Award, 2022**)

Book Chapter

- **Springer (LNNS, volume 371):** P. Ghosh, M. Raihan, M. Hassan, L. Akter, S. Zaman and M. Awal, "Fake News Detection of COVID-19 Using Machine Learning Techniques", Intelligent Computing & Optimization, pp. 467-476, 2022 (Scopus Indexed).
- **Springer (LNDECT, volume 132):** S. Rahman, M. Raihan, T. Hasan, S. Mithila, M. Hassan, L. Akter and M. Sarker Raihan, "Efficient Machine Learning Approaches to Detect Fake News of Covid-19", in International Conference on Machine Intelligence and Data Science Applications (MIDAS) 2021, 2022.

IEEE Digital Library

- **IEEE Xplore: Hassan M, Peya Z, Zaman S et al. (2020)** A Machine Learning Approach to Identify the Correlation and Association among the Students' Drug Addict Behavior. 2020 11th International Conference on Computing, Communication and Networking Technologies (ICCCNT). doi: 10.1109/iccant49239.2020.9225355 (Scopus Indexed)
- **IEEE Xplore: Hassan M, Mamun Billah M, Rahman M et al. (2021)** Early Predictive Analytics in Healthcare for Diabetes Prediction Using Machine Learning Approach. 2021 12th International Conference on Computing Communication and Networking Technologies (ICCCNT). doi: 10.1109/iccant51525.2021.9579799 (Scopus Indexed)
- **IEEE Xplore: Hassan M, Khan M, Islam K et al. (2021)** Depression Detection system with Statistical Analysis and Data Mining Approaches. 2021 International Conference on Science & Contemporary Technologies (ICSCT). doi: 10.1109/icsct53883.2021.9642550 (Scopus Indexed)
- **IEEE Xplore: Hassan M, Peya Z, Mollick S et al. (2021)** Diabetes Prediction in Healthcare at Early Stage Using Machine Learning Approach. 2021 12th International Conference on Computing Communication and Networking Technologies (ICCCNT). doi: 10.1109/iccant51525.2021.9579869 (Scopus Indexed)
- **IEEE Xplore: Rony M, Hassan M, Ahmed E et al. (2021)** Identifying Long-Term Deposit Customers: A Machine Learning Approach. 2021 2nd International Informatics and Software Engineering Conference (IISEC). doi: 10.1109/iisec54230.2021.9672452 (Scopus Indexed)
- **IEEE Xplore: Billah M, Hassan M, Raihan M et al. (2021)** A Data Mining Approach to Identify Human Behavior on Different Activities of Student. 2021 12th International Conference on Computing Communication and Networking Technologies (ICCCNT). doi: 10.1109/iccant51525.2021.9579811 (Scopus Indexed)
- **IEEE Xplore: L. Hu, A. Yadav, H. Liu, M. Hassan and S. Mollick,** "Construction of Reverse Logistics Network of Waste Electrical Appliances", 2021 Fourth International Conference on Electrical, Computer and Communication Technologies (ICECCT), 2021(Scopus Indexed).

- **IEEE Xplore:** M. Raihan, M. Islam, P. Ghosh, **M. Hassan**, J. Angon and S. Kabiraj, “Human Behavior Analysis using Association Rule Mining Techniques”, 2020 11th International Conference on Computing, Communication and Networking Technologies (ICCCNT), 2020(Scopus Indexed).
- **IEEE Xplore:** S. Kabiraj, L. Akter, M. Raihan, N. Diba, E. Podder and **M. Hassan**, “Prediction of Recurrence and Non-recurrence Events of Breast Cancer using Bagging Algorithm”, 2020 11th International Conference on Computing, Communication and Networking Technologies (ICCCNT), 2020 (Scopus Indexed).
- **IEEE Xplore:** M. Raihan, E. Ahmed, A. Karim, S. Azam, M. Raihan, L. Akter and **M. Hassan**, “Chronic Renal Disease Prediction using Clinical Data and Different Machine Learning Techniques”, 2021 2nd International Informatics and Software Engineering Conference (IISEC), 2021. (Scopus Indexed)
- **IEEE Xplore:** K. Mumenin, K. Reza, S. Shathi, H. Akter, M. Raihan, **M. Hassan**, S. Rahman and M. Awal, ”COVID-19 Fake News Detection on Social Media”, 2021 International Conference on Computer, Communication, Chemical, Materials and Electronic Engineering (IC4ME2), 2021.

ACM Digital Library

- **ACM Digital Library:** **M. Hassan**, M. Raihan, M. Abir, T. Dhali, Md. Rahman, Z. Sneha “A Hybrid Machine Learning Approach to Predict the Risk of Having Stroke”, Proceedings of the International Conference on Computing Advancements, 2022.
- **ACM Digital Library :** A. Sarder , M. Raihan, **M. Hassan** N, Alvi, M. Rabbi, M. Mirja “Human Activity Recognition using Time Series and Machine Learning Techniques”, Proceedings of the International Conference on Computing Advancements, 2022.
- **ACM Digital Library:** M. Raihan, M. Islam, P. Ghosh, J. Angon, **M. Hassan** and F. Farzana, “A Machine Learning Approach to Identify the Correlation and Association among the Students’ Educational Behavior”, Proceedings of the International Conference on Computing Advancements, 2020.

Accepted Articles

- **Procedia Computer Science, Elsevier:** **M. Hassan**, A. Karim, S. Mollick, S. Azam, E. Ignatious, A.Haque “An Apriori Algorithm-Based Association Rule Analysis to detect Human Suicidal Behaviour”, HCist – International Conference on Health and Social Care Information Systems and Technologies 2022.(Scopus Indexed)
- **Procedia Computer Science, Elsevier:** L. Ava, Asif Karim, **M. Hassan**, F. Faisal, S. Azam, A. Haque, S. Zaman “Intelligent Identification of Hate Speeches to address the increased rate of Individual Mental Degeneration ”, HCist – International Conference on Health and Social Care Information Systems and Technologies 2022.(Scopus Indexed)

Under Review Articles

- **Computational Intelligence and Neuroscience, Hindawi (Impact Factor: 3.120):** F. Yasmin, **M. Hassan**, M. Hasan, S. Zaman, J. Angon, A. Bairagi, Y. Chun ”ANN-LSTM: A Hybrid Model for High Precision Time Specific Forecasting ”, Computational Intelligence and Neuroscience, (Scopus Indexed)
- **Information, MDPI:** **M. Hassan**, P. Ghosh, A. Karim, M. Hasib, S. Azam, M. Jonkman, A. Dulla, ”DiabNet-5: A Deep Learning based proposition for the effective diagnosis of Diabetes” (Scopus Indexed)
- **CAAI Transactions on Intelligence Technology, Wiley (Impact Factor: 7.98):** Zin, Kyawt Kyawt; Oo, Aung Cho ; Tun, Thura; Zara Lwin, Nei Rin; Oo, Kyaw Kyaw ; Aung, Si Thu ; Zaman, Sadika; Hassan, **M. Mehedi**, ”Automatic segmented brain tumor based on deep learning using 2D U-Net Model” (Scopus Indexed)
- **Journal of Healthcare Engineering , Hindwai (Impact Factor: 3.822:** K. Htut, M. Khat, K. thapa, k. Oo, S. Thu **M. hassan**, ”Severe and Shock Heart Attack with Early Detection by Key Feature Impact based Machine Learning Approach” (Scopus Indexed)
- **Biomedical Signal Processing and Control, Elsevier (Impact factor: 5.076):** K. Htun, M. Kyaw, H. Htun, K. Oo, S. Aung, **M. Hassan**, ”Intelligent Movement-Controlled Brain-Computer Interface System based on EEG Signal”
- **Information Systems, Elsevier (Impact Factor: 3.17):** M. Raihan; S. Azam; L. Akter; **M. Hassan**; R. Quadir; S. Mondal; A. More, ”Risk Factors Categorizations of Ischemic Heart Disease in South-Western Area of Bangladesh”

MEMBERSHIP OF SCIENTIFIC SOCIETIES

-
- **Institute of Electrical and Electronics Engineers (IEEE)** - Professional Member (From 2020 - Now)

REVIEWER

- IEEE Access
- Human-Centric Intelligent Systems (Springer Journal)
- Informatics in Medicine Unlocked (Springer Journal)
- Applied artificial intelligence (Taylor & Francis)
- Applied sciences (MDPI)
- Big data and cognitive computing (MDPI)
- Bioengineering (MDPI)
- Cogent engineering (Taylor & Francis)
- Electronics (MDPI)
- International Journal of Water (IJW) (Inderscience Publishers)
- IEEE International Conference on Advanced Computational and Communication Paradigms (ICACCP)

HONORS AND AWARDS

- Best Paper Award 2022, Human-Centric Intelligent Systems, Springer (Journal)
- Bangabandhu Digital Social Innovation Award 2020
- Project of Honor, YESIST12 (IEEE) 2021
- Best Paper Award, Machine Intelligence & Data Science Applications (MIDAS 2021)

VOLUNTEER EXPERIENCE

- **Dinghy Foundation** Bangladesh
As a founder, I am leading for working on social problem and children abuses. *March 2020 - Present*
- **My Body Is My Body Program** USA
I am working as a ambassador and volunteering to this organization. *Jan 2019 - Present*
- **Global Peace Chain** USA
Working as a ambassador from Bangladesh and volunteering to this organization. *May 2019 - Present*
- **Asia World Model United Nations** Bangladesh
Delegate of Model United Nations. *May 2020*

REFERENCES

Dr. Anupam Kumar Bairagi
Professor, Computer Science and Engineering, Khulna University, Bangladesh
Email: anupam@cse.ku.ac.bd

M. Raihan
Senior Lecturer, North western University, Khulna, Bangladesh
Email: mraihan@nwu.edu.bd

Dr. Asif Karim
Lecturer (Discipline of IT) - Charles Darwin University, Australia
Email: asif.karim@cdu.edu.au

DECLARATION

I hereby declare that all the details mentioned above are in accordance with the truth and fact as per my knowledge and I hold the responsibility for the correctness of the above-mentioned particulars.

Md. Mehedi Hassan