MR. MD. ISHAN AREFIN HOSSAIN [IAH]

Lecturer

MSc

in

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Biography

UK

Md. Ishan Arefin Hossain started his academic journey in the capital of Bangladesh; Dhaka. He attended the SSC exam from a local school in Dhaka and the HSC exam from Dhaka College and passed both exams with the highest GPA. After that, Md. Ishan Arefin Hossain graduated in CSE from BRAC University back in 2018 with the Highest Distinction award. During his undergrad period, he received multiple VC List and Dean's List awards for his excellent academic performance and published a few international research papers. After his graduation, he served at several universities in Bangladesh as a Lecturer and continued his research work.

He was awarded the prestigious "British Council GREAT Scholarship" award for pursuing his master's in the UK in 2021. During his post-graduation period, he also served as a Software Developer at Quorum Development Ltd in the Uk. After completing his master's degree in the UK with Distinction, he returned to Bangladesh and he is now passionately serving as a Lecturer at the ECE Department of NSU from 2023.

### Research Areas

- Embedded Systems and Internet of Things (IoT)
- Artificial Intelligence & Robotics

### Research Interests

- Edge Intelligence
- Smart Cyber-Physical Systems
- IoT-based Intelligent Systems

# Teaching

- CSE 311 Database Systems
- CSE 311L Database Systems Lab
- CSE 215 Programming Language II
- CSE 215L Programming Language II Lab
- CSE 299 Junior Design Course
- CSE 225 Data Structures and Algorithms
- CSE 225L Data Structures and Algorithms Lab

### **Selected Publications**

## **Journals**

- Md. Ishan Arefin Hossain, Anika Tabassum, Zia Ush Shamszaman, "Deep edge intelligence-based solution for heart failure prediction in ambient assisted living," Discover Internet of Things, 2023
- Dipta Neogi, Mahirul Alam Chowdhury, Mst. Moriom Akter, Md. Ishan Arefin
  Hossain, "Mobile detection of cataracts with an optimised lightweight deep Edge
  Intelligent technique," IET Cyber-Physical Systems: Theory & Applications, 2024
- Rashik Iram Chowdhury, Jareen Anjom, Md. Ishan Arefin Hossain, "A novel edge intelligence-based solution for safer footpath navigation of visually impaired using computer vision," Journal of King Saud University Computer and Information Sciences, 2024
- Tahiya Tasneem Oishee, Jareen Anjom, Uzma Mohammed, Md. Ishan Arefin Hossain, "Leveraging Deep Edge Intelligence for Real-time Respiratory Disease

Detection," Clinical eHealth, 2025

**Conference Papers** 

- Md. Ishan Arefin Hossain, Ahmed Kiser, Israt Jahan Mitu, Syeda Mahin Binta
  Haque, "Intelligent IoT-based Combined Crop-type and Disease Prediction System
  with Different Machine Learning & Deep Learning Techniques," 10th International
  Conference on Electrical Engineering, Computer Science and Informatics (EECSI), 2023
- S.M. Shahidur Harun Rumy, Md. Ishan Arefin Hossain, forji Jahan, Tanijna Tanvin, "An IoT based System with Edge Intelligence for Rice Leaf Disease Detection using Machine Learning," IEEE International IOT, Electronics and Mechatronics Conference (IEMTRONICS), 2021
- Mariha Afroz, Nazia Hasan, Md. Ishan Arefin Hossain, "IoT Based Two Way Safety Enabled Intelligent Stove with Age Verication Using Machine Learning," International Conference on Computer Communication and Informatics (ICCCI), 2021
- Md. Ishan Arefin Hossain, Mridul Banik, Ismail Hossain, Md. Ashraful Alam, "IOT based Autonomous Class Attendance System using Non-Biometric Identification," Joint 7th International Conference on Informatics, Electronics & Vision (ICIEV) and 2nd International Conference on Imaging, Vision & Pattern Recognition (icIVPR), 2019
- Md. Yousuf Hossain, Ismail Hossain, Mridul Banik, Md. Ishan Arefin Hossain, Amitabha Chakrabarty, "Embedded System based Bangla Intelligent Social Virtual Robot with Sentiment Analysis," Joint 7th International Conference on Informatics, Electronics & Vision (ICIEV) and 2nd International Conference on Imaging, Vision & Pattern Recognition (icIVPR), 2019

**Research Projects & Grants** 

North South University Conference Travel and Research Grant (CTRG) 2023 – 2024 Professional Activity

- Juror, Bangladesh Blockchain Olympiad (Artificial Intelligence Category)
- Invited Speaker, EdgeTech Forum: Exploring Intelligence at the Edge and Shaping
  Technology Transfer and Policy, IEEE NSU Student Branch