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Biography

Riasat Khan is an Associate Professor in the Department of Electrical and Computer Engineering at North South University, Dhaka, Bangladesh. He earned his B.Sc. in Electrical and Electronic Engineering from the Islamic University of Technology (IUT), Bangladesh. He was appointed as a Lecturer at Green University of Bangladesh after graduation. He later pursued and completed his MSc and Ph.D. in Electrical and Computer Engineering at New Mexico State University, USA. During his doctoral studies, Khan worked as a Graduate Teaching Assistant and received the Outstanding Teaching Assistant Award. His research interests include Data Science, Artificial Intelligence, Power Electronics, and Electrical Engineering.

Research Areas

▪ Artificial Intelligence & Robotics

▪ Modeling and Simulation

Research Interests

Data Science, Artificial Intelligence, Power Electronics, and Electrical Engineering

Teaching

▪ CSE 445 Machine Learning

▪ EEE 111/ ETE 111 Analog Electronics-I

▪ EEE241/ETE241 Electrical Circuits II

▪ EEE 141 Electrical Circuits I

▪ CSE 542 Advanced VLSI Design

▪ CSE499A/EEE499A/ETE499A – Senior Design I

▪ CSE499B/EEE499B/ETE499B – Senior Design II

▪ EEE 312 Power Electronics

▪ EEE311/ ETE311 Analog Electronics II

Selected Publications

Journals

▪ Riasat Khan and Kwong T Ng, “DMD-Galerkin Model Order Reduction for Cardiac Propagation Modeling,” Applied Computational Electromagnetics Society Journal, 2018

▪ N. A. Mimma, T. Rahman, S. Ahmed and R. Khan, “Fruits Classification and Detection Application Using Deep Learning,” Scientific Reports, 2022

▪ M. N. I. Suvon, S. C. Siam, M. Ferdous, M. Alam and R. Khan, “MS and PhD Admission Prediction of Bangladeshi Students into Different Classes of Universities,” IAES International Journal of Artificial Intelligence, 2022

▪ M. T. Islam, S. T. Mashfu, A. Faisal, S. C. Siam, I. T. Naheen and R. Khan, “Deep Learning Based Glaucoma Detection with Cropped Optic Cup and Disc and Blood Vessel Segmentation,” IEEE Access, 2022

▪ N. H. Tasnim, S. Afrin, B. Biswas, A. A. Anye and R. Khan, “Automatic Classification of Textile Visual Pollutants using Deep Learning Networks,” Alexandria Engineering Journal, 2022

▪ A. Hossain, M. J. Anee, R. Faruqui, S. Bushra, P. Rahman and R. Khan, “A GPS Based Unmanned Drone Technology for Detecting and Analyzing Air Pollutants,” IEEE Instrumentation & Measurement Magazine, 2022

▪ I. Tasin, T. U. Nabil, S. Islam and Riasat Khan, “Diabetes prediction using machine learning and explainable AI techniques,” Healthcare Technology Letters, 2022

▪ M. M. Ratul, K. A. Rahman, J. Fazal, N. R. Abanto and R. Khan, “Face Mask and Social Distance Monitoring via Computer Vision and Deployable System Architecture,” Intelligent Automation & Soft Computing, 2023

▪ A. Rahman, M. B. H. Hriday and R. Khan, “Computer vision-based approach to detect fatigue driving and face mask for edge computing device,” Heliyon, 2022

▪ R. B. Islam, S. Akhter, F. Iqbal, M. S. U. Rahman and R. Khan, “Deep Learning Based Object Detection and Surrounding Environment Description for Visually Impaired People,” Heliyon, 2023

▪ S. Siddique, S. Islam, E. E. Neon, T. Sabbir, I. T. Naheen, and R. Khan, “Deep Learning based Bangla Sign Language Detection with an Edge Device,” Intelligent Systems with Applications, 2023

▪ S. Solayman, S. A. Aumi, C. S. Mery, M. Mubassir and R. Khan, “Automatic COVID-19 Prediction Using Explainable Machine Learning Techniques,” International Journal of Cognitive Computing in Engineering, 2023

Conference Papers

▪ Riasat Khan and Kwong T Ng, “Model Order Reduction for Finite Difference Modeling of Cardiac Propagation using DMD Modes,” IEEE International Applied Computational Electromagnetics Society Symposium, Denver, CO, 2018

▪ Riasat Khan and Kwong T Ng, “Model Order Reduction of Finite Difference Bidomain Modeling of Cardiac Propagation,” Biomedical Engineering Society Annual Meeting, Phoenix, AZ, 2018

▪ Riasat Khan and Kwong T Ng, “Higher Order Finite Difference Modeling of Cardiac Propagation,” IEEE International Conference on Bioinformatics and Biomedicine (BIBM), Kansas City, MO, 2017

Research Projects & Grants

1. “Automatic Smartphone-based Glaucoma and Diabetic Retinopathy Detection System Using Deep Learning Approaches,” North South University Research Grant, 2021.

2. “Investigation of Antenna Design Parameters with Machine Learning Techniques,” North South University Research Grant, 2022.