Md. Kamrul Hasan
Assistant Professor, Department of Electrical and Electronic Engineering
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I am Md. Kamrul Hasan, working as an assistant professor in the department of EEE, CUET. I want to enrich my knowledge in my respective field through intensive research.

Academic Credentials:

- Master of Science in Electrical and Electronic Engineering
  Chittagong University of Engineering and Technology (CUET) CGPA: 4.00/4.00
  September, 2018- June, 2023

- Bachelor of Science in Electrical and Electronic Engineering
  Chittagong University of Engineering and Technology (CUET) CGPA: 3.86/4.00 (4th in 135)
  May, 2012- February, 2017

Teaching Experience:

Assistant Professor Chittagong University of Engineering and Technology (CUET) Chattogram, Bangladesh	01-11-2023 to Present
Lecturer	
• Chittagong University of Engineering and Technology (CUET) Chattogram, Bangladesh	06-03-2018 to 31-10-2023
• Bangladesh Army International University of Science and Technology (BAIUST), Comilla, Bangladesh.	12-01-2018 to 03-03-2018
• Port City International University (PCIU) Chattogram, Bangladesh.	04-05-2017 to 11-01-2018

Research Experience:

- BSc Thesis (December, 2015- January, 2017)
  "Modelling and Simulation of Highly Efficient Amorphous Silicon Solar Cells".

- MSc Thesis (February, 2021- March, 2023)
  "Voltage Quality Management using Minimal Number of Transformers in CUET Distribution Network".

Language Proficiency Test:

IELTS Overall Band: 7 (Listening: 6, Writing: 7, Reading: 7, Speaking: 7)

Research Interest:

- Optimization in Power System, Load Scheduling.
- Power System Economics, Demand Response.
- Smart Grids and Microgrid system.
- Renewable and Sustainable Energy System and Technology
- Solar cells, Optoelectronics & Photonics.
- Machine Learning and Deep Learning

Project:

- Intelligent Object Load switching using Microcontroller.
- Low Budget DC Voltmeter by Microcontroller.
- Basic Gate Design using Microcontroller.
- Electronic Voting Machine (EVM) by Arduino.
- Fundamental Frequency and Pitch Detection from Speech.
- VLSI design in CADENCE: A General-Purpose Shift Register.

Training, Workshop and Attachments:

- Visiting the G.E.M. Plant, Chattogram, Bangladesh in 2015.
- Industrial Training in the Training Institute for Chemical Industries (TICI), Narsingdi, Bangladesh in 2016.
- **Web Development** Training for 6 Months under LICT Project run by Bangladesh Computer Council.

Technical Skill:

- Software: OpenDSS, PSSE, wx-AMPS, Cadence, PSpice, Proteus, MultiSim, Emu8086.
- Programming Language: C, MATLAB, Arduino IDE, MikroC, Assembly Language.
- Data Analysis Software: Microsoft Excel.
- Framework and Libraries: TensorFlow, Keras, PyTorch.
- Writing & Editing Software: Microsoft Word, Microsoft PowerPoint.
- Reference Tool: Grammarly, Mendeley Desktop.

Publications:

Journal

- "A Comparative Evaluation of CNN and Vision Transformer for Jute Leaf Disease Detection through Image Processing", Submitted to Elseiver Journal for Smart Agriculture Technology (Under Review).
- "Intelligent Object Detection And Load Switching", Md. Asif Siddique, **Md. Kamrul Hasan**, Md. Mamunur Rahman, Nahid Nasrin, Swarup Chakraborty, Subrata Bhowmik (IJOAR)

Conference

- Md. Forkan, **M. K. Hasan**, Md Tohidul Khan, Adnan Sarkar, Md Manjurul Gani "A Feasibility Study of Hybrid Hydrokinetic and Solar Power Generation at Bandarban Hill Tracts for Off-Grid Communities" *2025 International Conference on Electrical, Computer and Communication Engineering (ECCE)*, Chattogram, Bangladesh,
- **M. K. Hasan** and N. Mohammad, "Different Scenario Analysis of PJM 5-Bus Test System by Changing Load Demand," *2022 International Conference on Innovations in Science, Engineering and Technology (ICISET)*, Chittagong, Bangladesh, 2022, pp. 163-168, doi: 10.1109/ICISET54810.2022.9775892.
- **M. K. Hasan** and N. Mohammad, "An Outlook over Electrical Energy Generation and Mixing Policies of Bangladesh to Achieve Sustainable Energy Targets -Vision 2041," *2019 International Conference on Electrical, Computer and Communication Engineering (ECCE)*, Cox's'azar, Bangladesh, 2019, pp. 1-5, doi: 10.1109/ECACE.2019.8679446.
- M. A. Siddique, **M. K. Hasan**, M. A. Matin, Nowshad Amin and M. M. Rahman, "Modeling and Simulation of Highly Efficient Amorphous Silicon Single Junction Solar Cell," *2017 International Conference on Mechanical Engineering and Renewable Energy (ICMERE)*, Chittagong, Bangladesh, 2017, PI-228.

Leadership Skill:

- **Organizing Secretary** for Greater Noakhali Student Forum (Ex-Com 2015-2016)
- **Vice President** for Andromeda Space and Robotic Research Organization (Ex-Com 2015-2016)

Awards and Scholarship:

- University Scholarship (Merit) for undergraduate Students, Department of EEE, CUET, Bangladesh (2012-2016)
- Canada Alumni Association CUET Scholarship (2013, 2015)
- Exim Bank Merit Scholarship (2013-2016)
- Higher Secondary Board Scholarship (Merit), Comilla Education Board, Bangladesh (2011-2015).
- Secondary Board Scholarship (Merit), Comilla Education Board, Bangladesh (2009-2011).

Referees:

- Dr. Mahmud Abdul Matin Bhuiyan
  Professor,
  Department of Electrical and Electronic Engineering, CUET, Bangladesh
  Email: mamatin@cuet.ac.bd

- Dr. Nur Mohammad
  Professor and Head,
  Department of Electrical and Electronic Engineering, CUET, Bangladesh
  Email: nur.mohammad@cuet.ac.bd

- Dr. Rashed Md Murad Hasan
  Professor,
  Department of Electrical and Electronic Engineering, CUET, Bangladesh
  Email: murad_eee@cuet.ac.bd