Md Mahfuzur Rahman Chy

☎ +1 409 600 4960 | ✉ mchy1@lamar.edu

EDUCATION

Lamar University — Beaumont, TX, USA
Doctorate in ECE — *Aug 2024 – Present*

Shahjalal University of Science & Technology — Sylhet, Bangladesh
Bachelor of Science (BSc) in Electrical & Electronic Engineering — *Feb 2018 – May 2023*

RESEARCH INTERESTS

Power System fault detection, Mathematical modeling of electrical fault, Machine Learning,

PUBLICATIONS

Journal Proceedings

1. **"Characterization of 400 Volt High Impedance Faults with Current and Magnetic Field Measurements: Soil-based HIFs."** *A. I. Sifat, F. J. Stevens McFadden, R. Rayudu,* **M. M. R. Chy**, *and M. Imran. IEEE Transactions on Power Delivery*, July 29, 2024, current status: under review.

Conference Proceedings

1. **"Implementation of a Small-Scale Smart Energy Storage Scheme for Hybrid Renewable Power Sources."** *I. K. Amin, M. N. Islam, A. Jaman, M. K. Hasan, and* **M. M. R. Chy**. *2022 12th International Conference on Electrical and Computer Engineering (ICECE)*, Dhaka, Bangladesh, 2022, pp. 324-327, doi: 10.1109/ICECE57408.2022.1008858.

2. **"Finite Element Analysis of Different Coil Topologies for Wireless Power Transfer Based Applications."** *I. K. Amin,* **M. M. R. Chy**, *M. N. Islam, A. Jaman, Shanto M. A. R. 7th International Conference on Engineering Research, Innovation and Education (ICERIE)*, 2023.

RESEARCH EXPERIENCE

Graduate Research Assistant — Lamar University, TX
ECE department — *Aug 2024 – Present*

Undergraduate Research Assistant — Shahjalal University of Science & Technology
Electrical & Electronic Engineering Department, SUST — *Feb 2021 – Oct 2022*

PROJECTS

Implementation of a Pico-scale Renewable Energy storage scheme — SUST, Bangladesh
Feb 2021 – Oct 2022

- Developed a smart hybrid system that collects energy from Solar, Wind, and Hydro sources with a priority-based power management system to deliver energy to the required load and battery.
- Implemented a priority-based load distribution system classified into emergency, instantaneous, and general categories to meet the overall load demand.

SKILLS & INTERESTS

Simulation: MATLAB, Ansys, PSCAD
Programming: C, C++ Python, 8086 Assembly Language
Document Illustration: LaTeX, Adobe Illustrator, Office 365
Soft Skills: Time Management, Teamwork, Problem-solving, Documentation, Engaging Presentation
Interests: Reading books, Playing Badminton, Running