


Mohammad Ehteshaam

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EDUCATION

Concordia University

Master of Engineering in Electrical and Computer Engineering

Montreal, QC, Canada

2023 – August 2025

Jamia Millia Islamia

Bachelor of Technology in Electrical Engineering

New Delhi, India

2019 – 2023

SKILLS SUMMARY

Programming & Tools: Python, MATLAB, AutoCAD, MATLAB Simulink, ETAP, Homer

Certifications & Licenses: EIT (APEGA), Electric Power Systems (University of Buffalo), Power Distribution & Automation Specialization (L&T EduTech)

EXPERIENCE

The Expert MEP Solutions

Junior Electrical EIT

April 2024 – Present

- **Electrical Design Support:** Assisted in designing electrical systems for residential/commercial MEP projects, ensuring NEC code compliance and drawing approval.
- **Cross-Disciplinary Coordination:** Collaborated with HVAC, plumbing, and ELV teams to streamline installation workflows.
- **Procurement Optimization:** Prepared BOQs and supported procurement planning, contributing to a **12% reduction** in material cost overruns.

Harcomp Airflex Ltd

New Delhi

Electrical Engineering Intern

Jan 2023 – Aug 2023

- **System Reliability Testing:** Tested HVAC/electrical systems and performed troubleshooting to enhance operational stability.
- **Multi-System Inspections:** Conducted field inspections across Fire Alarm, Lighting, Protection, BMS, Grounding, and Telecom systems.
- **Installation Oversight:** Oversaw installation and commissioning across **6 industrial sites**, ensuring quality compliance and timely handover.

Central Public Works Department (CPWD)

New Delhi, India

Electrical Engineer Intern

June 2022 – Dec 2022

- **Power Distribution:** Assisted in HT/LT panel installations and solar generation systems (1MW) at Thyagraj Stadium.
- **Pumping Systems:** Supported installation of bidirectional pumps for rainwater dewatering systems.

PUBLICATIONS

Battery Health Monitoring System Using IoT: Presented at IEEE SmartTechCon 2023, August 2023. View

A Dynamic Framework of Solar Based Electric Vehicle Charging Station with Artificial Neural Network and Genetic Algorithm Techniques: Under review for Journal of Engineering and International Management.

PROJECTS

Power System Optimization under Uncertainty using GAMS & MATLAB Simulink

Concordia University

- **Optimization Modeling:** Built a cost-minimization model using GAMS under uncertainty in demand, solar irradiance, and energy prices.
- **Simulation Tools:** Simulated system dynamics in MATLAB Simulink with time-series data over a 24-hour load profile.
- **Statistical Analysis:** Applied Monte Carlo Simulation (1000 iterations) to assess parameter variability. Integrated stochastic optimization to improve reliability across 5 demand-supply scenarios.

Design of a Grid-Connected Photovoltaic (PV) System for a House

Concordia University

- **System Design:** Designed a residential grid-connected PV system, performing detailed load analysis, PV sizing, inverter selection, and wiring design using real-world data and simulation tools such as HOMER and PSIM.
- **Sizing and Components:** Applied Global Horizontal Irradiation (GHI) data; selected 12 LONGi 370W panels to match annual load. Designed 6-series, 2-parallel rooftop layout optimized for tilt and azimuth.
- **Simulation and Validation:** Simulated output performance, verified inverter compatibility, and ensured compliance with grid integration standards.