Mahmud Omer

Personal website: https://momer25.com/#about

I am a passionate Electrical Engineer with a background in electric power engineering and computer science, offering over 3+ years of experience in electric power utility as well as renewable energy optimization research and development. I bring expertise in T&D power system analysis, protection, control and automation with hands-on experience using ADMS, EMS, SCADA Systems, as well as protective relay programs.

TECHNICAL SKILLS

ELECTRICAL ENGINEERING	COMPUTER SCIENCE
Power System Analysis, supervision and control (ADMS, EMS, ETAP, ETAP, MATLAB/Simulink), Renewables Energy Integration, Power system protection and control (SEL and GE Relays, ASPEN Relay DB, GE Enervista, SEL_AcSELerator Quickset, Doble ProtectionSuite)	Programing languages (Python, c++), Systems Optimization, Data Analytics (Power BI, SQL), AI & ML, Automation and Scripting (Python)

EDUCATION

- **MSCS**, San Francisco Bay University (WASC Accredited), Fremont, CA, 2023
- **BSEE**, Khalifa University (ABET Accredited), Abu Dhabi, UAE, Dec 2020

CERTIFICATIONS AND LICENSES

- California Engineer In Training (EIT) license (License # 182919)

EXPERIENCE

Southern California Edison, Pomona, CA

Relay programs Ops Engineer **Nov 2023 – Ongoing**

- Built over 250 test plans for both existing and new substation protective relay including GE F60, C60, D60, F35, T60, L90, SEL 351, 351S, 311C, 311L, 411L,411C, 387 as well as Beckwith Electric M-3425A generation relays.
- Performed detailed engineering analysis of protection relay failures and associated issues
- Provided continuous technical support to substation construction and maintenance technician's group and contractors, focusing on protective relays, substation automation (PLC & HMI), and control equipment
- Built Power BI dashboard to track daily work orders
- Worked on training material development for new hires and interns

Electrical System Engineer /IT Specialist (contractor) **May – Nov 2023**

- Ensured precision in substation one-line accuracy within the Advanced Distribution Management System (ADMS) and collaborated with database and display groups to address EMS one-line issues.
- Conducted thorough reviews of network topology on distribution circuits and collaborated with the client small world database team to rectify data issues.
- Run DSSE on more than 200 substations and examined the DSSE results. Identified and addressed issues encompassing inaccurate model data, meter errors, or software defects and coordinated with the model team to rectify model-related issues and liaised with vendors to address software defects.

- Compiled comprehensive reports detailing findings from DSSE results, as well as created Jirra workorder to resolve issues, thereby contributing to the continuous improvement of system accuracy, efficiency, and reliability.

Khalifa University, Abu Dhabi, UAE

Research Associate **Jan 2021 -May 2022**

- **Novel Optimized Global Maximum Power Point Tracking (GMPPT) technique for Single Stage Grid connected PV Array**

  Developed a novel PSO based optimized Global Maximum Power Point Tracking (GMPPT) technique with 100% GMPPT accuracy and 99% efficiency for single stage grid connected PV Array operating under partial shading conditions.

AWARDS AND AFFILIATIONS

Awarded by	**Award Description**	**Date**
San Francisco Bay University, CA, USA	President's scholarship to study MSCS at SFBU	Jan 2022
Khalifa University, Abu Dhabi, UAE	Awarded Golden Key international honor society Membership.	Dec 2020
	Listed on President's List	2019&2020
	listed on Dean's List	2016&2017
	Awarded Fully Funded International Student Scholarship	Jan 2016

VOLUNTEERING

Volunteered at	Role	Date
Sun Work, SF Bay Area, CA, USA	Volunteer solar PV installer	Oct 2022 – Ongoing

MEMBERSHIPS

- Member of Golden Key International Honor Society
- Toastmasters International
- IEEE