# MAHER ALTABBAKH



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# Power Electrical Engineer with a Master's in Renewable Energy

# **Career Objective**

**Experienced Energy Systems Operator** with robust expertise in Power Systems, Renewable Energy, Control Systems, Telecommunications, and Machine Learning. Proficient in real-time monitoring, control, and optimization of utility-scale wind, solar, and battery energy storage system (BESS), ensuring stable and reliable Bulk Electric System operations. Well-versed in maintaining compliance with NERC and FRCC standards while prioritizing safety, reliability, and regulatory adherence. Leveraging a strong background in SCADA and Control Engineering, I seek to apply my comprehensive expertise and knowledge in energy management to contribute effectively as an Energy System Operator at TECO Energy.

## **Skills**

**Engineering Skills** 

Inverter Programming | Controlling circuits | AVR Microcontroller | PLC | HMI | PCB Lighting and wiring of buildings | Wind Energy | Solar Energy | BESS | Power Electronics HTML | CSS | Bootstrap | MySQL | C++ | C# | ASP.NET | JavaScript | jQuery | React

Programming Skills
Knowledge
Computer Skills

Data Analytics | Machine Learning (ML) | Artificial Intelligence (AI)

<u>Languages</u>

Matlab/Simulink | AutoCAD | Multisim | MS Office | LATEX

Fluent in Arabic, English and Turkish

Leadership Skills

Diploma and Practitioner in the Management and Development of the Individuals Certified Consultant in the Management and Development of the Individuals

# EXPERIENCE 2008 - Present

#### Clearway Energy,

Operations Specialist I (Current Position)

Scottsdale, Arizona October 2023 – present

- Ensure safety, reliability, and environmental compliance across a diverse a 6 GW portfolio of utility-scale Wind, Solar, Battery Storage, and Distributed Generation (DG) sites by meticulously adhering to NERC and ISO standards.
- Manage real-time performance monitoring and control of both high-voltage utility-scale sites (69KV and above) and low-voltage Distributed Generation (DG) sites, ensuring stable operations and swift responses to emerging issues.
- Proactively monitor and analyze real-time operational data to identify root causes of abnormalities, ensuring data integrity for operational events while complying with regulatory standards and meeting customer contract requirements.
- Play a key role in optimizing asset production, ensuring reliable operation of the Bulk Electric System, and enhancing
  profitability while meeting stringent NERC/ISO compliance across the utility fleet.
- Utilize strong problem-solving skills, critical thinking, and data analytics to swiftly address abnormal operating conditions, alarm events, and root cause identification, thereby minimizing downtime and maximizing operational efficiency.
- Support the commissioning and testing of new projects, ensuring safety, regulatory compliance, and optimal operational readiness.
- Collaborate with Field Operations teams to verify plant status and ensure the safe operation of the equipment.
- Demonstrate expertise with various SCADA systems (GE, Mitsubishi, Siemens, Siemens Gamesa, Suzlon, and Vestas), HMI/ignition controllers for PV sites (Emerson, Siemens, SMA, and TMEIC), and BESS controllers (GEMS, and Fluence) to monitor, control, optimize operational performance and meet regulatory standards.
- Show expertise in real-time data analysis and decision-making as an Operations Specialist, driving efficiency and reliability in energy production.
- Provide training to team members on new technologies, simplifying complex concepts to improve understanding and enhance operational efficiency.
- Collaborate with internal and external entities such as Scheduling Coordinators, and Transmission Operators to ensure smooth operations, addressing issues related to capacity scheduling/reporting, telemetry, and remote-control capability, in full compliance with NERC and ISO regulations.

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**Cudura Software Solution,** 

Tampa, Florida

Full Stack Web Developer

June 2022 – August 2023

- Developed Front-end and Back-end for CareSoft, a software managing services for disabled individuals at home.
- Implemented various security access levels for administrators, staff, and patient portal.

Technology: HTML, CSS, Bootstrap, JavaScript, jQuery, .Net 6.0, MVC, Dapper, MS SQL Server, Stored procedure

Bayaan Academy School,

Tampa, Florida

STEM Instructor

August 2020 - June 2022

- Mentored middle and high school students in various STEM subjects
- Led a team of middle school students in LEGO International Robotics Competition

#### Istanbul Technical University,

Istanbul, Turkey

Research Assistance

August 2014 – June 2020

- Assisted in Developing LVRT control method for DFIG, and PMSG used with wind turbine by applying Machine Learning and Artificial Intelligent (ML/AI) principles
- Participated in Installing the battery storage system for photovoltaic (PV) solar energy system
- Designed & executed automated production lines by using simple control components such as switches, sensors, contactors, and invertors, which decrease the expenses of the automated production lines and made the production faster, easier, and more accurate

#### S.D.A Controlling & Automation Systems,

Istanbul, Turkey

Controlling Systems Engineer

October 2013 - March 2014

- Utilized Eplan and AutoCAD to interpret and draw controlling and electrical design schematics
- Designed & executed automated systems using PLC, Inverters, HMI, pneumatic valves, and servo motors which increase the production capacity by 20%

#### Syrian Telecommunication Establishment (S.T.E),

Damascus - Syria

Manager of Telecommunication Center

November 2011 – August 2013

- Supervised a technician team of 83 to decrease malfunctions of telecommunication cables which increased the profits around 25%
- Supervised the execution of adding more than 3600 new paid subscribers, by leading the project with more than \$250,000 budget to connect the remote areas by installing new 10 Km length cables

#### Syrian Telecommunication Establishment (S.T.E),

Damascus - Syria

Supervisor of Planning and Developing Department at General Directorate

December 2010 - October 2011

- Created plans for developing the telecommunication network in remote areas of the city, and monitored the execution of that plans
- Prepared the accomplishment reports for Damascus's telecommunication centers to be presented to the telecommunication ministry

#### Syrian Telecommunication Establishment (S.T.E),

Damascus – Syria

Supervisor of Maintenance and Operations Department

September 2009 – November 2010

- Installed and Operate Multiplexer system for 13 Telecommunication Centers, with more than \$250,000 budget, which extended the capacity of the centers up to 13,000 extra subscribers
- Trained the technicians at the telecommunication centers to operate the Multiplexer system

### Syrian Telecommunication Establishment (S.T.E),

Damascus - Syria

Assistant Manager of maintenance department

August 2008 - August 2009

- Assisted in Leading the technician team fixing the telecommunication's cable faults, reading schematics, determining cables glitches, ....., etc.
- Operating, and maintaining the underground cable networks 24/7

### **EDUCATION**

• M.S. Sc. Renewable Energy, Damascus University, Damascus – Syria

(2013)

 B.Sc. Electrical Engineering, Damascus University, Damascus – Syria NCEES accredited equivalent to ABET accreditation (2007)

## **AWARDS/PUBLICATION**

- ELECO 2019 11th INTERNATIONAL CONFERENCE Bursa, Turkey,
- "Enhancement of the Low Voltage Ride through Capability for Doubly-Fed Induction Generator during Grid Voltage Dip"
- Damascus University Honor Award, Top 8 of Class over 2,000 in 2007