Fahad Faraz Ahmad

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RENEWABLE ENERGY ENGINEER | SOLAR PV ENGINEER | ELECTRICAL ENGINEER | POWER SYSTEM ENGINEER

- *A highly competent renewable energy engineer who can be trusted in managing innovative work and delievering quality solution. A multi-skilled, multi-talented and robust self-starter who can beat expectations.*

About Me

Nationality: Pakistan
Date of Birth: 06/09/1991
Marital Status: Married

EDUCATION

Master's in Clean and Renewable Energy
2014-2016, FRANCE
Percentage: 81%

Master's in New Energy Science and Engineering
2014-2016, China
Percentage: 81%

Bachelors of Science in Electrical Engineering
2009-2013, PAKISTAN
CGPA: 3.25/4.00

Interpersonal Skills

- Communication Skills
- Innovative & creative
- Teamwork
- Problem Solving
- Leadership
- Self Motivative

LANGUAGE PROFIENCY

- **English:** Proficient
- **Urdu:** Fluent / Proficient
- **Punjabi:** Native

EXPERIENCE – 7 YEARS

ACADEMIC EXPERIENCE:

OCT 2018 – PRESENT

LABORATORY ENGINEER
RENEWABLE ENERGY RESEARCH LAB,
RESEARCH INSTITUTE OF ENGINEERING AND SCIENCES, UNIVERSITY OF SHARJAH, SHARJAH, UAE

- Manage the Renewable Energy Laboratory (REL) and equipment.
- Manage and supervise the projects in the Biomass Energy Laboratory.
- Training of the use of the equipment in the REL for researchers, research assistants and students.
- Set up and run the experiment related to renewable energy projects.
- Calibration of the renewable energy system and collect the data.
- Perform modeling and simulation of renewable energy systems.
- Analyze the data and perform the necessary calculations.
- Write technical reports and research articles.
- Make sure to implement the health & safety regulation and policies.

Sep 2015 – OCT 2016

Research Scholar
CHINA-EU INSTITUTE FOR CLEAN AND RENEWABLE ENERGY,
HUAZHONG UNIVERSITY OF SCIENCE AND TECHNOLOGY, WUHAN, CHINA

- Completed 12 technical subject-based course work from European Professors at CEICARE.
- Research on designing of grid connected PV system and islanding detection under the mentorship of European and Chinese Professors.
- Performance analysis of maximum power point tracker and islanding detection methodologies.
- Introduced a variable step size in incremental conductance algorithm to enhance the efficiency of maximum power point tracker.

APR 2014 – AUG 2014

Lab Engineer (Power Lab)
The UNIVERSITY OF FAISALABAD, FAISALABAD, PAKISTAN

- Designed experimental manuals for Power Lab and Measurement & Instrumentation Lab.
- Delivered the demonstration for experiments on power generation, transmission and distribution.
- Supervised the maintenance of Lab equipment

TECHNICALSKILLS

- **Design Software**
  - AUTOCAD
  - PVSYST
  - PVSOL
  - SAM
  - RETSCREEN
  - SKETCH UP
- **Engineering Software**
  - MATLAB
  - iHOGA
  - GAMS
  - SciLAB
  - MP Lab
  - Proteous
  - EES
- **Programming Language**
  - ASSEMBLY
  - C++
  - VERILOG
  - LADDER LOGIC
- **Office Suite:**
  - Microsoft office

Certificates

- **Huawei certificate** FUSIONSOLAR INVERTER TRAINING
- **CPD certificate on** OPERATIONS AND MAINTENANCE FOR PV SYSTEMS
- **Course certificate on** OIL, GAS, COAL AND ENERGY GLOBAL ISSUES, THE CHALLENGES TO DEVELOP CLEAN AND RENEWABLE ENERGY
- **CPD Certificate on** APPLYING FIDIC CONTRACTS TO THE ENERGY SECTOR
- ONLINE LAB SAFETY TRAINING **certificate by Central Labs Directorate University of Sharjah**

INDUSTRIAL EXPERIENCE:

MARCH 2017 – SEP 2018

SOLAR ENGINEER (PROJECT DEPT.)

ALMADEN MENA FZE, DUBAI, UAE

- Manage projects and provide technical support.
- In hand, experience of MW level rooftop, car parking and ground mounted system designing, implementation, operation & maintenance.
- Complete EPC designing of Solar system according to international standard and local UAE standard.
- Electrical designing of solar system according to the client requirements.
- Preparation of submittals for tendering.
- Proposal preparation with cost and ROI analysis.
- Shadow and system efficiency analysis of designed system.

Key Projects:

- ✓ 2.4 MW Solar Car Parking Project @ Mall of Oman.
- ✓ 1.0 MW Ground Mounted @ Emirates Modern Poultry Farm, Dubai.
- ✓ 540 KW Rooftop Project @ Emirates Modern Poultry Farm, Dubai.
- ✓ 516 KW Solar Car Parking Project @ Sohar City Centre, Sohar, Oman.
- ✓ 427 KW Solar Car Parking Project @ ADNOC Headquarter, Abu Dhabi.
- ✓ 160 KW Rooftop Project @ ADNOC Headquarter, Abu Dhabi.
- ✓ 130 KW Rooftop Project @ TRA, Jabel Ali, Dubai.
- ✓ 130 kW Solar Car Parking Project @ My City Centre Sur, Oman.

FEB 2014 – JUL 2014

ELECTRICAL TRAINEE ENGINEER

SITARA FABRICS LTD., FAISALABAD, PAKISTAN

- Accomplished commission, operation, maintenance of electrical control equipment including inverters, VFD's & PFI unit.
- Overlooked the processing machinery such as Singeing, Calendar, Stentor and Comfort machines.
- Led and managed technical work force to meet workload effectively.
- Communicates technicians, both individually and on call, to ensure good two-way communication concerning services issues.
- Monitors the use of inventories of spare parts, equipment and maintenance supplies.

JUL 2012 – JUL 2012

Trainee Engineer

National Transmission & Despatch Company LTD, PAKISTAN

- Analyzed the control system and operation of 500kV grid station.
- Studied different type protection on HV & LV side and for grid equipment.
- Studied the Single Line Diagram (SLD) of power system and Power Line Communication (PLC) between grid stations.
- Wrote a brief report on components, operations and protection systems of grid.

Publications

[1] **Fahad Faraz Ahmad**, Chaouki Ghenai, Abdul Kadir Hamid, Maamar Bettayeb, "Application of sliding mode control for maximum power point tracking of solar photovoltaic systems: A comprehensive review", Annual Reviews in Control, 2020. https://doi.org/10.1016/j.arcontrol.2020.04.011

[2] Mohammad AlShabi, Chaouki Ghenai, Maamar Bettayeb, **Fahad Faraz Ahmad** & Mamdouh El Haj Assad, "Multi-group grey wolf optimizer (MG-GWO) for estimating photovoltaic solar cell model", Journal of Thermal Analysis and Calorimetry (2020). https://doi.org/10.1007/s10973-020-09895-2

[3] Mohamed Abdelsalam, Walid Obaid, **Fahad Faraz Ahmad**, Abdul Kadir Hamid, Chaouki Ghenai, "Modeling and Simulation of a Solar Powered Golf Cart Charging Station in Sharjah", Renewable and Sustainable Energy - 2020 Advances in Science and Engineering Technology (ASET), Dubai, United Arab Emirates, 2020. https://doi.org/10.1109/ASET48392.2020.9118204

[4] **Fahad Faraz Ahmad**, Mohamed Abdelsalam, Abdul Kadir Hamid, Chaouki Ghenai, Obaid Waleed, Bettayeb Maamar, "Experimental Validation of PVSYST Simulation for Fix Oriented and Azimuth Tracking Solar PV System", International Conference on Modelling Simulation & Intelligent Computing, Mosicom2020,DUBAI, UAE. https://doi.org/10.1007/978-981-15-4775-1_25