

**Senior Implementation Electrical Engineer (Data Center Engineer)**

Holds B. Sc. and M. Sc. in Electrical Engineering and has about 9 years hands-on experience working in distribution systems design as well as in the implementation, commissioning and testing of HV switchyard equipment.

**PERSONAL DATA**

Nationality : Egyptian  
Birth Date : 18/07/1989  
Gender : Male  
Residence : Giza, Cairo

**EDUCATION**

: B. Sc. in Electrical Engineering, Assiut University, 2012  
: M. Sc. in Electrical Engineering, Assiut University, 2018

**LANGUAGES**

Arabic : Native Language  
English : Very Good  
German : Basics

**COMPUTER SKILLS**

: Windows, MS Office, Internet  
: MATLAB & Simulink, C, C++, C#, AutoCAD, GAMS Software, PLC & SCADA, ETAP, REVIT, HOMER Energy  
: RetScreen Expert, LabVIEW, PVsyst, Schneider Ecodial, Siemens PSS/E, Python, PSCAD Software  
: System Advisor Model (SAM), PVSOL, EMTP-ATP, PowerFactory – DlgSILENT

**TRAINING COURSES AND CERTIFICATIONS**

: Industrial PLC Applications (Oct. 2011 – Dec. 2011).  
: Power System Protection and Design of the Digital Relay (Jul. 2012 – Sep. 2012).  
: Electrical Power Systems Distribution including Light Current (Nov. 2012 – Jan. 2013).  
: Supervisory Control and Data Acquisition (SCADA) and Distributed Control System (DCS) from Alstom Power (Mar. 2013 – Aug. 2013).  
: GSM (Global System Mobile) (Oct. 2013 – Dec. 2013).

- : Microcontroller Applications (Mar. 2014 – May 2014).
- : Internships at:
  - Middle Egypt Electricity Distribution Company (Jul. 2011 – Sep. 2011).
  - Assiut Oil Refining Company (Aug. 2010 – Oct. 2010).
  - Mobiserve for Technical and Telecom Services (Aug. 2009 – Oct. 2009).
  - CEMEX (Cement Manufacturing Process) Summer Training Academy (Jul. 2008 – Oct. 2008).
- : IELTS Exam Test Results: Band 7.5.

## CHRONOLOGICAL EXPERIENCE RECORD

- Dates** : From Jun. 2019 till now
- Employer** : RAYA NETWORK SERVICES
- Job title** : Senior Implementation Electrical Engineer (Data Center Engineer)
- Job Description** :
- Design, operation and maintenance of the following: MV and LV Switchgear, BMS, HVAC, generators, electrical panels, UPS, ATS / STS, batteries, grounding, firefighting and fire alarms systems, CCTV and access control.
  - Perform testing and commissioning activities for Data and Telecommunication related equipment on customer sites for commercial and industrial use as well as participate in installation supervision of these equipment.
  - Supervising monthly, quarterly, and yearly preventive maintenance procedures. Also, maintaining on-site job records and administration tracking.

- Dates** : From Oct. 2017 till May 2019
- Employer** : ENGINEERING CONSULTANTS GROUP
- Job title** : Senior Electrical Design Engineer
- Job Description** :
- Electrical systems design and preparing calculations reports for the distribution system including lighting; Small power; Earthing; Lightning; MV switchgear; Distributors; BOQ; Sizing of transformers, generators, UPS, ATS, STS, power panels, busbars and busways, and cables.
  - Voltage drop, short circuit and harmonics calculations, and power system protection design.
  - Rooftop photovoltaic panels and solar water pumping system design.
  - Working according to international standards and regulations such as IEC, IEEE, British Standard, NFPA...etc.
  - Prepare electrical equipment specifications, technical requirements, and datasheets.
  - Prepare electrical load list and analysis.
  - Create and revise one-line diagrams and schematic diagrams.
  - Develop electrical plot plan and layouts.
  - Coordinate electrical designs with other related departments.

- Dates** : From Feb. 2015 till Sep. 2017
- Employer** : ELECTRO THARWAT COMPANY
- Job title** : Site / Technical Office Engineer

- Job Description** :
  - Design of electrical power substations. This includes preparing drawings such as layouts, sections, and details for substations.
  - Commissioning, installation and testing of power stations, which includes generators, transformers, motors, circuit breakers, GIS, switchyard and switchgear.
  - Develop and evaluate conceptual substation design options to initiate transmission and distribution system projects.
  - Perform engineering analysis/calculations to support substation designs.
  - Provide design assistance for documentation of substation asset maintenance and upgrades - Specification for purchase of all major equipment contained in substation projects (i.e. large power transformers, breakers, voltage regulators, switches, surge arresters, bus/wire sizes, etc.).
  - Installation of DCS (Distributed Control Systems) and protection systems for motors, generators and power transformers.
- Dates** : From Oct. 2012 till Jan. 2015
- Employer** : FRANK NOE COMPANY
- Job title** : AUTOMATION (CONTROL & INSTRUMENTATION) ENGINEER
- Job Description** :
  - Installing, programming and maintenance of National Instruments (Embedded Vision System) and (myDAQ) using LabView software.
  - Dealing with various control systems as a PLC and SCADA systems (HMI) programmer, and supervising new instruments and sensor installations.

#### **PUBLICATIONS:**

- Moubarak, A., El-Saady, G. and Ibrahim, El-Noby A. (2018) Battery Energy Storage for Variable Speed Photovoltaic Water Pumping System. ARPN Journal of Engineering and Applied Sciences, 13(23), 8970-8982.
- Moubarak, A., El-Saady, G. and Ibrahim, El-Noby A. (2018) Optimal Operation of Renewable Energy Irrigation System Using Particle Swarm Optimization. ARPN Journal of Engineering and Applied Sciences, 13(24), 9318-9327.
- Moubarak, A., El-Saady, G. and Ibrahim, El-Noby A. (2018) Power Quality Improvement of Photovoltaic Water Pumping System Using LC Filter. ARPN Journal of Engineering and Applied Sciences, 13(4), 1311-1326.
- Moubarak, A., El-Saady, G. and Ibrahim, El-Noby A. (2017) Variable Speed Photovoltaic Water Pumping Using Affinity Laws. Journal of Power and Energy Engineering, 5, 50-71.

#### **CONFERENCES / HONOURS AND AWARDS:**

- Moubarak, A., El-Saady, G. and Ibrahim, El-Noby A. (2017) Optimal Operation of Renewable Energy Irrigation System Using Particle Swarm Optimization. 2nd Irbid International Engineering Conference, Irbid - Jordan.
- Winner of the GKS (Global Korea Scholarship) in South Korea for the position of a visiting student researcher – GKS (Global Korea Scholarship) (Mar. 2019).