

**101922-ELE-D-E-2011**  
**HV/MV Substations Electrical Primary Design Engineer**

Holds a B. Sc. in Electrical Power & Machines Engineering and has over 5 years hands-on experience, including 4 years working as HV Substations Electrical Primary Design Engineer, including working as Project Manager of primary design scope for more than 10 substations in KSA & Egypt.

## PERSONAL DATA

Nationality : Egyptian  
Birth Date : 16/12/1986  
Gender : Male  
Marital Status : Married  
Residence : Cairo

## EDUCATION

: B. Sc. in Electrical Power & Machines Engineering, Tanta University, 2011

## LANGUAGES

Arabic : Native Language  
English : Excellent

## COMPUTER SKILLS

: Windows, MS Office (Word, Excel, etc.), Internet  
: MicroStation & AutoCAD  
: CYM Grid (for Earthing System Design Calculation)

## TRAINING COURSES AND CERTIFICATIONS

: Fundamentals of Total Quality Management (TQM) course, certified from the Egyptian Engineers Syndicate (2012).  
: Programmable Logic Controller (PLC) course, certified from JELECOM (2010).  
: Summer training in Talkha Fertilizer Factory (2010).  
: Summer training in Cairo Oil Refining Company (Tanta Refinery) (2009).  
: Midyear training with IEEE (Tanta Student Branch) (2009).

## CHRONOLOGICAL EXPERIENCE RECORD

**Dates** : From Jan. 2016 till now  
**Employer** : Bahrawy Consultancy Group (BCG) (Egyptian Consultancy Office specialized in design of HV/MV substations)

- Projects** : Here's a list of projects in KSA under my responsibility with different contractors such as Al Gihaz, Al Babtain, SIEMENS, El Sewedy PSP & Advanced Energy (under supervision of NG & SEC companies):
- Tabuk Housing 132/13.8KV
  - Al Hair 8063SS 132/13.8KV
  - Al Aziziah-4 110/13.8KV
  - Misfalah-4 110/13.8KV
  - Extension of Gay 132/33KV (AIS)
  - Al Wessam 110/13.8KV
  - Al Osailah 110/13.8KV
  - Madinah East 110/13.8KV
  - Al Maznah 33/13.8KV
  - New Qarrah 33/13.8KV
  - Shorouk West 220/22KV in Egypt
- Job title** : Electrical Primary Design Team Leader
- Job Description** :
- Mange no. of substations regarding all primary design scope.
  - Communicate with the contractor by mail and over phone for providing the required submittals and the technical support for POs and site activities.
  - Study the Project Technical Specifications (PTS), SOW, Pre-BID & Post BID clarifications and project tender drawings.
  - Prepare and revise all primary design submittals (listed above).
  - Experience in projects in KSA with National Grid (NG) & Saudi Electricity Company (SEC) companies and consultants like SATECH & MTMM.
  - Experience with SEC standards such as TES & TMSS and international standards such as IEEE & IEC.
  - Prepare the project time schedule regarding the primary design scope and supervise its execution.
  - Lead a team of engineers working on the assigned projects.
  - Provide the technical support for the team to perform their duties and build up their experiences.
  - Revise the manufacturer base design and technical offers for the project equipment and materials.
  - Coordinate with protection, arch, civil & mechanical departments for different design activities.
  - Good Knowledge in protection of HV & MV power systems.
  - Aware of panels' schematic drawings.
  - Experience with GIS & AIS substations.
- Dates** : From May 2013 till Dec. 2015
- Employer** : Bahrawy Consultancy Group (BCG)
- Projects** : Here's a list of projects in KSA I have participated their design as follows:
- Al Shatea 110/13.8KV
  - Al Sharea 110/13.8KV
  - Thuwal Town 110/13.8KV
  - Al Khadra 132/33KV
  - Al Khalediyah 132-13.8KV
  - Extension of Al Bida 132/13.8KV
  - Misfalah-4 110/13.8KV
  - Al Aziziah-3 110/13.8KV

- Al Aziziah-4 110/13.8KV
  - Extension of Thuwal 110/13.8KV
  - King Abdullah Sport City (KASC) 110/13.8KV
- Job title** : Electrical Primary Design Engineer
- Job Description** : My duties included preparing the submittals related to the primary design scope of the substation as follows:
- Overall substation equipment layout.
  - Wall openings and floor cutouts plans & sections.
  - Power cables raceway plan & sections including material BOQ.
  - Control cables raceway plan & sections including material BOQ.
  - Loading calculation for HV, MV, LV & Control cables ladders.
  - HVAC Cables raceway.
  - Design of Duct bank & Sleeves for Cables.
  - Earthing system design calculation using excel and CYM Grid programs.
  - Earthing grid plan & details including material BOQ.
  - Reinforcement Earthing plan & details including material BOQ.
  - Equipment Earthing plan & details including material BOQ.
  - Battery /battery charger sizing calculation.
  - Auxiliary transformer sizing calculation.
  - AC/ DC single line diagrams (SLD).
  - AC / DC CB Sizing Calculations.
  - AC/ DC Cables sizing calculations including cables BOQ.
  - HV/MV Cables sizing calculation including cables BOQ.
  - Shielding system design calculation & layout including material BOQ.
  - Heat Dissipation Calculation.
  - Bonding schematic drawing.
  - Aware of indoor & outdoor lighting design.
- Dates** : From Jul. 2012 till Apr. 2013
- Employer** : Modern Power Systems (MPS) Company – Subsidiary of EMFI Group
- Job title** : Technical Office & Project Engineer
- Job Description** :
- Study the electrical cost estimation (contact with vendors, preparing comparatives for supplies, coordinating between contractors, preparing erection & supply cost estimation) for:
    - Gabal El-Zayt 220/22KV GIS substation with AREVA.
    - Extension of Naga Hammadi 500/220/11KV substation:
  - Preparing the sub-contract list, contract audit and activities inspection for El-Rahman Administration/Commercial Tower owned by the company as following:
    - Inspect of all heating, ventilation and air conditioning (HVAC) system.
    - Inspect of all low voltage / light current works such as lighting, power circuits, fire alarm and grounding.
    - Inspect of electrical installations for distribution transformer and switchgear.
    - Preparing and revising of the sub-contract invoices.