# **106105-MEC-6CDH-E-2011** HVAC, Fire Fighting & Plumbing Senior Design Engineer

Holds a B. Sc. in Mechanical Power Engineering and has over 5 years hands-on experience, including 4 years working in HVAC, Fire Fighting and Plumbing design.

# PERSONAL DATA

| Nationality    | : | Egyptian   |
|----------------|---|------------|
| Birth Date     | : | 27/08/1989 |
| Gender         | : | Male       |
| Marital Status | : | Single     |
| Residence      | : | Cairo      |
|                |   |            |

# EDUCATION

: B. Sc. in Mechanical Power Engineering, Zagazig University, 2011

# LANGUAGES

| Arabic  | : | Native Language |
|---------|---|-----------------|
| English | : | Very Good       |

# COMPUTER SKILLS

- : Windows, MS Office, Internet
- : AutoCAD
- : Revit MEP 2018
- : Hourly Analysis Program (HAP)
- : Elite program (CHVAC & RHVAC)
- : Elite Duct Size
- : Elite Fire Fighting
- : Elite Plumbing
- : Bentley Water CAD (Infrastructure)
- : Bentley Sewer CAD (Infrastructure)
- : Bentley Microstation V8i (Drawing)
- : Solid Works (3D Modeling)
- : MS Project (project management)

# TRAINING COURSES AND CERTIFICATIONS

: Project Management Professional (PMP), under supervision of Engineering Tarcks Company for Training with the certified trainer Engr. Mohamed Raslan (Jul. 2018).

- : Building Management System (BMS), under supervision of Cadres Makers Training Center (Oct. 2017).
- : REVIT MEP 2018, under supervision of CAD Master Instructor (Sep. 2018).
- : REVIT MEP 2014, under supervision of BIM Master Instructor (Oct. 2014).
- : Solid Works 2009, under supervision of International Center Training (ICT) (Feb. 2011).
- : Heating Ventilation and Air Conditioning (HVAC), under supervision of ELAMIN Company for electro-mechanical works (Aug. 2013).
- : Fire Fighting, under supervision of ELAMIN Company for electro-mechanical works (Jun. 2013).
- : Operating and Control for Electrical Machines, under supervision of Industrial Training Council (ITC), at Ministry Commerce and Industry (Aug. 2010).
- Hydraulic Control Circuits, under supervision of Industrial Training Council (ITC), at Ministry Commerce and Industry (Jul. 2010).
- : Diesel Engine Fundamentals, under supervision of Sharkia Syndicate of Engineers (Apr. 2013).
- : Car's Conversion System to Compressed Natural Gas Fuel, under supervision of Mechanical Power Department in Faculty of Engineering at Zagazig University (Apr. 2011).
- : Training for two months at HVAC works sites such as: SAHARA Project Administration building, at New Cairo, (VRV) system (from Aug. till Oct. 2013).

# CHRONOLOGICAL EXPERIENCE RECORD

Dates From Sep. 2016 till now : Bahrawy Consultancy Group (BCG) Employer : High voltage substation Projects (Saudi Arabia Projects): Projects • : AL BAYAA S/S 132/13.8KV Project #8514 (Central Area - DX package System). SKAKA S/S 132/13.8KV Project #8514 (Central Area - DX package -System). AL KHANDMAH S/S 132/13.8KV Project (Central Area - DX package System). High voltage substation Projects (Egypt Projects): EL SHOROUK WEST S/S 220/22/22KV Project at El Shorouk City. EXT. OF SOUTH OF TANTA S/S 220/66/11KV Project at Tanta \_ Citv. NORTH HURGADA S/S 220/22KV Project at Hurghada City. UNITED ACMA S/S 66/11KV Project at Belbis - Sharkia City. \_ DAMIETTA FURNITURE CITY S/S 220/11/11KV Project at Furniture City - Damietta. ABUO SULTAN S/S 66/22KV Project at Mostakbal City. EAST SOHAG S/S 500/220/66/22KV Project at Sohag City. \_ SONKER S/S 66/22KV Project at El Ain El Sokhna City. \_ AL QUSAIR S/S 66/22KV Project at Safaga City. MARASY S/S 220/22KV Project at Mostakbal City. \_ MARASY SWGR. S/S 22KV Project at Marassy City. ZIZENIA S/S 220/66/11KV Project at 10th of Ramadan City -

Sharkia.

- SOKHNA S/S 500/220/22KV Project at El Ain El Sokhna City.
- GAMASA S/S 220/66/11KV Project at Gamasa City.
- Infrastructure Projects (Egypt Projects):

|                      | <ul> <li>Infrastructure Projects (Egypt Projects):</li> </ul>   |
|----------------------|---|
|                      | <ul> <li>ROCK VERA compound (owner: EL BATAL Group) area 10.37 acre located in 5th district - Scope: Design (Infrastructure sewer network (by sewer CAD Program) &amp; Infrastructure water network (by water CAD Program) &amp; Fire Hydrant network (by ELITE Program) &amp; Irrigation network.</li> <li>Residential Projects (Egypt Projects):         <ul> <li>Villa 479 Golf extension (located at 6th of October for owner Mrs. Allia Osman).</li> <li>ROCK VERA Block of flats (water supply and drainage pipe Risers &amp; riser diagram (core and shell).</li> <li>ROCK VERA Basements (fire protection (sprinklers + FHC + Pump room) &amp; Ducted ventilation system &amp; floor drainage system).</li> </ul> </li> <li>BIM Projects (Saudi Arabia Projects):</li> </ul>  |
|                      | - Masfalah substation 110KV/13.8KV (modeling by REVIT Program).   |
| Job title            | : HVAC, Fire Fighting & Plumbing Senior Design Engineer   |
| Job Description      | <ul> <li>In addition to the below listed job description points (lay under junior title), some main tasks had been added, these tasks can be listed at the below main points:</li> <li>Below mentioned tasks lay under the junior title.</li> <li>Work flow time plan &amp; Site visits and technical support.</li> <li>Firefighting calculation by ELITE Program.</li> <li>Firefighting (FH) system &amp; power Transformer fire protection (dry system and pressurized tank).</li> <li>Fire pump room design drawing and shop drawing.</li> <li>HVAC Design Criteria Report &amp; conceptual design drawings (DX system &amp; Central Ventilation).</li> <li>Coordination between HVAC &amp; Plumbing &amp; Fire protection systems (water &amp; FM-200 system) &amp; Indoor and Outdoor Electrical equipment layout &amp; Cable ladders/trays &amp; Architectural &amp; Structural drawings (precast &amp; cast in situ) &amp; All underground service such as Cable Ducts &amp; Trenches &amp; Cranes (indoor and outdoor).</li> <li>Reviewing the technical material submittal &amp; technical offers.</li> <li>HVAC control schematic diagram between HVAC control panel and all field installed devices.</li> <li>Sequence of operation (Normal &amp; Emergency) mode.</li> <li>Design the user's interface for HVAC control panel face (panel door view).</li> <li>Estimating the mechanical equipment's electrical loads.</li> </ul> |
| Dates                | : From Nov. 2014 till Sep. 2016   |
|                      |   |
| Employer<br>Drainate | <ul> <li>Bahrawy Consultancy Group (BCG)</li> <li>High voltage substation Projects (Saudi Arabia Projects):</li> </ul>  |
| Projects             | <ul> <li>Fight voltage substation Projects (Saudi Arabia Projects).</li> <li>Extension AL BIDA S/S Project (Western Area - DX Split System).</li> <li>North Ain Dar Project (Western Area - Dx Split System).</li> <li>AL KHARG S/S 132/13.8KV Project #8716 (Central Area - DX</li> </ul>  |

- AL KHARG S/S 132/13.8KV Project #8716 (Central Area - DX package System).

- AL KHADRA ABO SADAD S/S 132/13.8KV Project (Southern Area DX package System).
- AL AFIF S/S 132/13.8KV Project #8604 (Central Area DX package System).
- AL QUAIWIYAH S/S 132/33/13.8KV Project #8514 (Central Area DX package System).
- AL HAIER S/S 132/13.8KV Project #8063 (Central Area DX package System).
- AL REMAL S/S 132/13.8KV Project #8340 (Central Area DX package System).
- AL MAZNAH S/S 33/13.8KV Project (Southern Area DX package System).
- AL OYNAH S/S 132/13.8KV Project #8312 (Central Area DX package System).
- AL DAWADMI S/S 132/13.8KV Project #8610 (Central Area DX package System).
- AL KHALIDIA S/S 132/13.8KV Project #8212 (Central Area DX package System).
- JEDLAN S/S 33/13.8KV Project (Southern Area DX package System).
- Another Projects with different applications (Some of below projects with BCG and others as a freelancer):
  - Faculty of Agriculture Theater, Zagazig University (design and shop drawing for four package units, each with capacity 70 TR).
  - BALADIA Building Administration Building at Al Jouf area, Saudi Arabia (Full design for 5 package units, each 50 TR).
  - RETAGE Hospital Project (shop drawing for duct system).
  - AL HAYAT international special hospital at Zagazig (shop drawing for duct system).
  - EL DEMERDASH Hospital (shop drawing for duct system).
  - HELWAN Hospital (shop drawing for firefighting system).
  - AIN SHAMS FACULTY OF DENTISTRY (shop drawing for duct system Ventilation & air conditioning system).
  - Elhamd Mall Project located at Area (no.34), 5th district (shop drawing fire fighting & Plumbing Systems).
  - LE ROA Mall Project 5th district (shop drawing fire fighting System).

: HVAC & Plumbing Junior Design Engineer

Job Description : The main

: The main job description can be listed at below points regarding to HVAC and Plumbing scope:

- HVAC Base design drawings and shop drawings.
- HVAC Load calculations by ELITE & HAP program.
- All calculations related to ventilation & pressurization & smoke purging.
- Duct sizing by ELITE program & ESP calculation.
- BOQ / Equipment schedules & specifications & Air outlets selection.
- Builder work drawings & Coordination / Composite drawing.
- Design Water & drainage piping (inside buildings and at yard) & Septic & soak tanks.
- Transfer & booster and Submersible pumps calculations & sum pit sizing.
- PACU condensation drain piping & pump sizing by DP Program.

Job title

| Dates<br>Employer | : | From Oct. 2013 till Oct. 2014<br>OMEGA Contracting Co.  |
|-------------------|---|---|
| Projects          | : | <ul> <li>North Sector Mosque Project located at Madinty-3 City (central split DX system)</li> <li>Elhamd Mall Project located at Area (no.34), 5th district (firefighting &amp; plumbing works)</li> <li>Mall 37 Project located at Area (no.37), 5th district (firefighting &amp; plumbing works)</li> </ul> |
| Job title         | : | HVAC, Fire Fighting & Plumbing Site Engineer  |