

Holds a B. Sc. in Electrical Power Engineering and has over 16 years experience working in protection, testing, commissioning and maintenance.

PERSONAL DATA

Nationality : Egyptian
Birth Date : 16/11/1976
Gender : Male
Marital Status : Married
Residence : El-Behira

EDUCATION

: B. Sc. in Electrical Power Engineering, Alexandria University, 2003

LANGUAGES

Arabic : Native Language
English : Very Good

COMPUTER SKILLS

: Windows, MS Office, Internet

TRAINING COURSES AND CERTIFICATIONS

- : Training on Micom Protection Relays (P12x - P14x - P43x- P44x - P63x - P74x), Lattes Technical Institute - AREVA - France (3 weeks in 2009).
- : Training on GL 314 and GL 317 HV 500KV SF6 Circuit breakers Operation and Maintenance, Aix-Les-Bains - AREVA T&D France (1 week in 2009).
- : Training on Insulation Coordination of Power System, Development Research and Technological Planning Center - Cairo University (1 week in 2009).
- : Training on Operation and Maintenance of Medium and Low Voltage Switchgear, Sepam Protection Relays, Dry Transformers and Cast resin Transformers, Schneider Electric - Egypt (1 week in 2008).
- : Training for On Load Tap Changer (OLTC – MR), Network Training Center - Egypt (2 weeks in 2008).
- : Training on Dissolved Gas Analysis for Transformer Oil, Network Training Center - Egypt (2 weeks in 2007).
- : Training on Operation and maintenance of switch yard 500KV & 220KV, Nubaria - Egypt (2 weeks in 2006).

- : Training on maintenance for Power Transformer by ZTR Co., Nubaria - Egypt (1 week in 2006).
- : Training on Hydrogen and Oxygen Gas Plant by INITEC Co., Nubaria - Egypt (1 week in 2006).

CHRONOLOGICAL EXPERIENCE RECORD

- Dates** : From Oct. 2005 till now
- Employer** : Middle Delta Electricity Production Company (MDEPC)
- Project** : Nubaria Power Station 3x750MW
 Nubria Power Station is a new station finished in October 2006, this power station consists of 4 CTGs and 2 STGs with total power 1500MW, in addition to the extension (2 CTGs and 1 STG) 750MW which finished in 2010 to complete the total power of the station to be 2250MW (the biggest power station in Egypt).
 Consists of:
- 4 CTGs (SIEMENS), 2 CTGs (GE).
 - 2 STGs (MITSUBISHI), 1 STG (ALSTOM).
 - 500KV Double Bus bar Double Breaker switch yard (HITACHI) with MICOM protection Relays.
 - 220KV Double Bus bar Single Breaker with Bus Coupler switch yard (ABB) With ABB Protection Relays.
 - Two 500KV OHTL with MICOM Protection Relays.
 - Eight 220KV OHTL with ABB Protection Relays.
 - Four tie transformers 500/220/12KV with MICOM Protection Relays.
- Job title** : Electrical Protection, Testing, Commissioning & Maintenance Engineer
- Job Description** :
- Familiarity with electrical relays currently used in the electric power utility industry and experience with: application of relays and metering in an electrical substation at 220/500KV; performing fault analysis, relay coordination studies and relay settings and preparing and reviewing engineering and designs for MV & HV and EHV electrical substation projects; protection of high voltage substation equipment such as transformers, circuit breakers including metering. Also, knowledge of AC/DC fundamentals; three phase power systems; per-unit mathematics and symmetrical components; understanding of substation components and their functions; design documents and drawings necessary to complete a project; and engineering standards including NEC, IEEE, IEC and ANSI. Relay coordination experience is a plus.
 - My Position is performing stations and substations protection, control, and communications; develop equipment specifications for protection and control equipment in the station and substations; select DPR I/O protective devices and coordinate telecommunication; develop project drawings to document protection and control systems; develop wiring diagrams from schematics, generating bills of materials, and applying field mark-ups of project as-built drawings with minimal supervision; perform engineering support tasks such as relay burden, lighting, load flow, and short circuit calculations with minimal supervision.
 - Participating in determination the specifications & technical requirements of all protection relays of the Nubaria power station (Module I & II).
 - Participating in Making the Predictive Maintenance Programs and supervise it for protection systems.

- Follow all commissioning tests of protection relays for bus bars (220-500KV), main and auxiliary Transformers, overhead lines (220 – 500KV), 6.3KV motors and transformers.
- Witnessed many types of testing for all relays and devices which delivered by SIEMENS, ABB, ALSTOM, AREVA, GE Multilin and MITSUBISHI to Nubaria Power Station.
- We have in the Protection section the Modern digital and numerical relays protection such as:
 - ABB relays (REL316*4, REL531 and REB500) for 220KV OHTL.
 - SIEMENS relays (7UM62 SIPROTIC) for CTG generators.
 - Micom family relays (P741-P742, P437-P442-P126-LFAA, P632-P141, and P143) for 500KV BUSBAR, OHTL and tie transformers (500/220/12KV).
 - GE Multilin relays (UR family T35-T60, MIFII, MIV and DTP) for CTG main and aux. transformers.
 - BECKWITH ELECTRIC relays (M-3425A, M-3310) for MITSUBISHI (STG) Generators and Excitation Transformer.
 - For 6.3KV distributions, we have Sepam1000 and Sepam100LD (Schneider deliveries) and ABB products REJ523 (OC, SC, EF...) and REU525 (UV, OV...).
 - In addition, many different types of relays for 0.4KV distributions.
- Participating in Studying, Analyses, Test and Make Specification for Electrical Components in My Branch's:
 - 500KV switchyard control center.
 - 220KV switchyard control center.
 - 6.3KV switchgear panels.
 - All tests on power transformers, CT's, VT's, C.B's, DS's, ES's and bus bar in (500KV, 220KV, 6.3KV and 0.4KV).
- In addition to follow commissioning tests and witnessed testing of HITACHI (500KV) and ABB (220KV) switch yards equipments. These tests like:
 - Tie transformers, Auxiliaries and Main transformers commissioning tests (Tan δ test, insulation (megger) test, DC resistance).
 - Transformers mechanical protection relays tests (Buchhlez relay, pressure relief device, rapid pressure device).
 - CB's tests (Timing test, DC Contact resistance for 500KV CB'S, SF6 dew point, trip and alarm SF6 value)[.
 - CT'S tests (insulation (megger), turns ratio, DC resistance, magnetizing curve, polarity).
 - VT's tests (turns ratio, insulation (megger) test).
 - Disconnecting switches tests (Contact resistance).
 - Earthing switches tests (Earthing resistance).
 - Battery impedance test.
 - Leakage current for surge arrestors.
 - I am doing all tests of protection relays (Distance relays, Transformers protection relays, Generator protection relays, Medium voltage protection relays] by myself.
- Corrective & preventive maintenance for the following:
 - 16.5/500KV main transformers for Siemens gas turbines.
 - 15/500KV main transformers for Mitsubishi steam turbines.
 - 500 MVA Tie transformers (500/220/11KV) from ZTR Ukrainian company.

- 500KV Conventional Air Insulated Switchyard:
 - ❖ 6 Incoming feeders from main transformers to 500KV Bus-bar.
 - ❖ 4 Outgoing feeders from Bus-bar to (500/220/11KV) Tie transformers.
 - ❖ 2 Outgoing feeders from 500KV Bus-bar to Cairo 500 and Sidi Krir 500.
- 220KV Conventional Air Insulated Switchyard:
 - ❖ 4 Incoming feeders 220KV.
 - ❖ 8 Outgoing feeders 220KV.
 - ❖ 220KV Bus-Coupler.
- Live Line Insulator Washing System (LLIWS).
- DC System (Chargers & Batteries).
- Corrective & preventive maintenance for the following:
 - Medium voltage 6.3KV switchgear with 4 incoming feeders.
 - 6.3/0.4KV dry transformers.
 - Motors control center MCC.
 - Low voltage induction motor.
 - Medium voltage induction motors.
 - Emergency diesel generators.
 - Power transformer.
 - UPS system and Battery Chargers.
 - Distribution Dc system.
- TESTING SETS - Dealing with many types of measuring, primary and secondary injection sets of high technologies such as:
 - 6 phase secondary injection tester (Omicron CMC356).
 - 3 phase secondary injection tester (ISA - DRTS) Corporation.
 - 3 phase secondary injection manual tester (MANTA).
 - High voltage tester PGK_HB 50KV (AC), 70KV (DC).
 - Single phase secondary injection manual tester (SEVERKER 750).
 - Single phase secondary injection tester (ISA).
 - Contact resistance tester (CRD-100X2) (ADWEL).
 - Circuit breaker Analyzer (CT – 6500.) (VANGURD).
 - Earth resistance tester (C-A 6460.), (MEGGER DET).
 - Battery internal impedance (MEGGER BITE 2).
 - Multi Arrester clamp leaker (ALCL – 40).
 - Winding resistance test set (WRT-100) (ADWEL).
 - Capacitance & Dissipation factor test set. AVO international.
 - Automatic Capacitance & Tan Delta test set.
 - Power transformer, CT's & VT's test set (ISA - T3000).
 - And another primary injection sets (ODEN – Programma) 3000A.
- RELAYS SOFTWARE APPLICATIONS SKILLS:
 - CAP (for ABB product).
 - MICOM S1 (for AREVA T&D products).
 - EnerVista (for GE MULTILIN products).
 - IPSCOM (for BECKWITH ELECTRIC products).
 - SFT2841 (for Schneider products).
 - DIGSI (for SIEMENS products).
 - Upgrade the firmware of different protection relays.
 - In addition to test sets software.

- Further experiences :**
- Senior Commissioning Engineer (I&C and Electrical) for interface signals, loop check, function test, interlocks scheme test, LV motor, LV switchgear, auxiliary transformer, valves, instrumentation devices and start-up for Air Cooled Condenser (ACC) of Steam Turbine Power Generation in New West Damietta combined cycle with Italy SPIG Company & ORASCOM Construction Company from Oct. to Dec. 2018.
 - Commissioning and Testing of 3 Diesel Engine (2.25MW) Protection Relays at Giza North Combined Cycle Power Plant 2250MW, Nov. 2016.
 - Operation and Maintenance Engineer with GE Gas Turbine TM 2500, 25MW at El-Hamra Assiut Project from Sep. to Nov. 2015.
 - Senior Commissioning Engineer for interface cables test, function test, interlocks scheme test and start-up with ORASCOM Construction Company at West Damietta Project (4x125MW GE Gas Turbine) from May to Jul. 2015.
 - Instructor with Apex- Dubai Company in United Arab Emirates from 2013 to 2014.
 - Instructor with SCOSA SIEMENS Company in Saudi Arabia from 2012 to 2014.