

Holds a B. Sc. in Electrical Engineering and has over 16 years of experience working in the Energy Field as Design Engineer, Design Review, Construction, Testing & Commissioning Engineer in Huge Power Plants and E.H.V Substations (Thermal Power Plant, Gas Turbine Combined Cycle, Extra High Voltage S/S, Transmission lines and Distribution System).

PERSONAL DATA

Nationality : Egyptian
Birth Date : 01/06/1983
Gender : Male
Marital Status : Married
Residence : Currently KSA

EDUCATION

: B. Sc. in Electrical Engineering, Alexandria University, 2006

LANGUAGES

Arabic : Native Language
English : Fluent

COMPUTER SKILLS

: Windows, MS Office, Internet

TRAINING COURSES AND CERTIFICATIONS

- : Offshore Training in Electrical Maintenance, CMI (4 weeks) (Belgium): Heat recovery steam generator, HRSG design and operation principles, Maintenance of drum levels indicators and transmitters, Electrical supply (MCC), Auma actuators adjustment, maintenance, Control valves Emerson, Maintenance of Audco valves, Pneumatic actuators adjustments and maintenance, Preventive maintenance rules, Electrical pumps and motors.
- : In the field at Cement Factory (Lafarge Titan).
- : PLC Course, Cairo University.
- : Basic course of Operation of the Steam "Thermal" Power Plants.
- : Training at EI-Kureimat I, 2x650MW Steam Power Plants.
- : Basic Course of Operation of the Combined Cycle Power Plants (EI-Kureimat Training Centre).
- : GE Maintenance Training (LCI & Excitation System) (EI-Kureimat Training Centre).

- : CCS course (Control circuit substation) at Network Training Centre (Ministry of Electricity).
- : Training course (SFC, SEE) through GE Company (El-Kureimat Training Centre).
- : Training course (Transformer) through HITACHI Company (El-Kureimat Training Centre).
- : Training course (HRSG) through CMI & SKODA Company (El-Kureimat Training Centre).
- : Site & Online Safety & Risk Assessment Courses.

CHRONOLOGICAL EXPERIENCE RECORD

- Dates** : From Dec. 2020 till now
- Employer** : Saudi Electricity Co. (SEC)
- Project** : PP14 KSA RIYADH Combined Cycle Power Plant 6x250MW + 2x350MW
- Job title** : Electrical Manager
- Job Description** : Responsible for all Electrical Activities:
- Support the site team to execute the work as per the required Specification/Standards.
 - Reply to the contractors technical Queries (T.Qs) / Concerns.
 - Review the MTS (Material Technical submittals).
 - Follow up/Guiding SEC Contractors to keep the site progress and achieve the planed milestone.
 - Modify/Update the Drawings (Layout, Scheme, Wiring, etc.) as per site condition.
 - Coordinate with SEC Vendors to provide the required technical supports, materials, etc.
 - Review the MCCs/TOPs and conducting the site walk down with the contractors.
 - Coordinate with the other disciplines during the work execution to avoid reworks.
 - Preparing RFQs and Review the contractor/vendor proposal, method statements, quotations, etc.

- Dates** : From Oct. 2017 till Nov. 2020
- Employer** : GE Gas Power
- Project** : MARAFIQ Rehabilitation Project 8x60MW Combined Cycle Gas Turbines
- Job title** : Lead Electrical Engineer
- Job Description** :
- Responsible for all Engineering Deliverables, Following Construction and Testing & Commissioning activities.
 - Replacing and Upgrading the Major Parts of the Existing Hitachi Equipment by GE Equipment" 7A6 Generator, GCB, Mark Vie, Excitation System EX2100e, PRP-Multilin Advanced Protraction Relays "T35, T60, G60, G30, 850, 345, P14D" UAT- Unit Auxiliary Transformers, SAT-Secondary Aux. Transformers, MV SWGR, LV SWGR, MCCs, Power & Control Cables, Raceways, MV & LV Motors, Control Systems, Cooling Water Module, Water injection, Fire Fighting System, etc."
 - Responsible for all engineering deliverable "RFQ, MTOs, Power System Studies, Cable Sizing, Equipment Sizing, Cable Schedule, Layout

Drawings, Schematic, Wiring Interconnection, wiring diagram, Protection Relay Settings, Redline of existing drawings, firefighting System, etc.".

- Follow up the engineering deliverables to get Client approval and issuance of IFC.
- Method Statements preparation.
- Follow up the construction activities and update the drawings as per site condition and providing Technical solutions.
- Achieving the goals and following the safety rules/requirements.
- Confirm the specification of the equipment to comply with Client Specification, international standards and Area Classifications.
- Follow up the testing & commissioning activities, unit start-up and Synchronization with the National Grid.
- ECN & RFC Preparation_ Update the design scheme if required and providing technical Support.
- Review the Red line drawings for AS-BUILT Preparation.
- Leading the electrical engineering meeting with the client to keep site progress.
- Materials Inspection and confirming the specs.
- Check/Confirm the FAT Test.
- Confirm proper preservation of the electrical equipment to avoid malfunction/damage of the equipment.
- Proper Communication/Coordination with Vendors and sub-contractors.
- Provide/Confirm qualified manpower and tools to complete the work as per planed schedule and sufficient Quality.
- Provide technical support to the site team.
- Coordinate with the other disciplines to confirm proper installation/function of the equipment and Avoid Re-Working.
- Strong understanding of the Contract Specification/Requirements "Scope of Work" and providing the Required technical Support to prepare the change order and getting client approval.
- Providing proper guidance to get customer satisfactions.
- Preparing the SOW for the Sub-Contractors & Vendors.
- Troubleshooting the faults and provide technical support.
- Providing the required technical proposals/guidance.
- Confirming Proper Installation/Function of all Systems.
- Proper Recording and providing the technical reports whenever required.
- Site Activity Management as per the priority.
- Proper handover to the client.

Dates : From Mar. 2015 till Oct. 2017
Employer : POYRY SWITZERLAND LTD CONSULTANT
Project : Shuqaiq Steam Power Plant - 4x747.5MW DFO/HCO - HYUNDAI Main Contractor
Job title : Lead Electrical Testing & Commissioning Engineer
Job Description : Owner Engineer Representative and responsibility as the following:

- Design Review: Review and Modify the Generator Protection scheme (Main & Back-up), Generator Excitation System, Excitation Transformer, Synchronizing System, 960MVA GSUT, 140MVA UAT/CAT Protection and Control Panels (Main & Back-up protection), Overall Protection, EDG Control and Protection, 16MW BFP VSD (GE Manufacturer), VSD

Transformers, HEC 8-ABB GCB Control Panel, 960MVA- HITACHI GSUT Control Panel (ODAF cooling system), UAT/CAT Transformers Control Panels, AVR, Tariff Metering, Fault Recorder, Interface and interlock drawings, HSBT, ATS & MTS, Oil type power distribution transformers, Dry type transformers, 13.8KV MV SWGR (Protection & Control Ckt's), 4.16KV MV SWGR (Protection & Control Ckt's), 480V LV SWGR, ACB Feeders "Air Circuit breaker" Protection & control schematic drawings, MCC's (Motor feeders) schematic drawing review, MCC's (Non motor feeders), Dry type transformers, MV & LV Motors, IPB, SPB, NSPB, Battery chargers, UPS, Batteries, Lighting.

- Review the Testing & Commissioning Method Statements of: Unit Stability Test, Protection & Generator Control panels, Generator Excitation System, Synchronizing System, GSUT, UAT/CAT transformers (Main relays, Lockout relays, Interlock Ckt's, Metering Ckt's, Interface signals, Aux. Relays, MCB's, etc.), GSUT Transformers, UAT/ CAT Transformers, AVR, BFP VSD, Tariff Metering, Fault Recorder, Dry type transformers, Oil type distribution power transformers, GCB, 13.8KV SWGR, 4.16KV SWGR, 480v LV SWGR & MCC's, MV & LV Motors, LV Motors, IPB, SPB, NSPB, H.V & MV Cables, Battery chargers, UPS, Batteries, Metering Circuits.
- Review the installation method statement of: Generator GSUT Transformers, UAT/ CAT Transformers, GCB, MV SWGRs, LV SWGRs, MCCs, Distribution & Auxiliary Boards, Control & Protection Panels, IPB, SPB and NSPB, UPS, Battery Chargers & DC System, etc.
- Field Inspection of Construction work: Installation of 960MVA GSUT, 112/140MVA UAT/CAT ONAF Type Transformers, 13.8KV MV SWGR, 4.16KV MV SWGR, 480V LV SWGR ACB & MCC's, Dry type transformers, Oil type transformer" power distribution transformers", IPB, SPB, NSPB, Battery chargers and UPS, VSD panels, Control panel, Power & Control Cables, Cable trays, indoor & outdoor lighting system.
- Testing & Commissioning Activities:
 - Schematic drawing check & update as per international standards, Contract Specifications and Site Requirements.
 - 747.5MW Generator Test (Hi pot, Stator Winding Resistance, IR Test for Stator, Rotor Winding Resistance, IR Test for Rotor).
 - Testing of Overall Protection Panel (GE Main Relay T35).
 - 20MVA Variable Speed Drive (GE - VSD) for Boiler Feed P/P (Function test for IGBTs, Current/Voltage Protection, Pre-Charging Ckt. function test, Cooling unit function test, Power supply redundancy check, Fault/Alarm signals, Interlock, Start-up).
 - Unit Stability Test.
 - Testing of 747.5MW (Alstom) Turbo Generator Protection (MICOM P345 - Differential, 100% Stator Earth Fault Low Frequency Injection Based, 95% Stator Earth Fault, Rotor Earth Fault Injection Based, Under Excitation, Over Excitation, Pole Slip, Under Voltage, Under/Over Frequency, Negative Phase Sequence, Thermal O/L, Reverse Power, Low Forward Power, Dead Machine, CBF, etc.).
 - Testing and Commissioning of Auto & Manual Synchronizing System (ABB SYNCHROTECT 5).
 - Testing and Commissioning of Generator Excitation Transformer.
 - Excitation Transformer O/C Relay MICOM P122.
 - Testing and Commissioning of Static Excitation System (Function

- test for Bridges, flashing Circuit, OC Protection, O/P According to firing angle, Under/Over Excitation limiters, Over fluxing limiter, Stator Current limiters, Over/Under voltage limiters, etc.).
- Generator PTs Cubicle and CTs.
 - Generator Neutral Transformer.
 - Testing of GSUT Protection Panels (Main & Back-up) (GE Main Relays T60, C60, High Impedance MIB II - Differential, Restricted Earth Fault, Over Current, Ground Fault, Over fluxing).
 - Testing of UAT/CAT Transformers Protection (GE Main Relays T60, C60, High Impedance MIB II - Main & Back-up).
 - Main protection relay test for MV & LV SWGRs (GE Main Relays T60, C60, M60, MIB II, SR 339).
 - Testing EDG Protection & Control Panels (VAMP 265, VAMP 210).
 - Testing and Commissioning of Tariff Metering Panel.
 - Testing and Commissioning of Fault Recorder Panel.
 - 960MVA ODAF Cooling Type 26/380KV GSU Transformer (HITACHI Manufacturer) - (Ratio, Winding Resistance, Vector group, Zero sequence impedance, Dissipation power factor, Winding insulation test, SFRA & DFRA, Dielectric oil test, mechanical protection function test, bushing CT, Magnetic balance, Excitation current test, LCP Function test, OLTC Function test).
 - 112/140MVA Three winding ONAF Cooling UAT/CAT Transformers (HYUNDAI Manufacturer) (Ratio, Winding Resistance, Vector group, Zero sequence impedance, Dissipation power factor, Winding insulation test, SFRA & DFRA, Dielectric oil test, mechanical protection function test, bushing CT, Magnetic balance, Excitation current test, LCP Function test, OLTC Function Test, Insulation Oil DGA, Sound level, etc.).
 - GSUT, UAT/CAT AVR Function Test (TAPCON 240 & TAPCON 260).
 - GCB - HEC 8 Type (ABB Manufacturer) (Hipot Test, CTs, PTs, Insulation resistance, Contact resistance, Timing test, interlock check, CB Monitoring relay GMS600, GCB Control panel function test).
 - VSD Transformers.
 - IPB and SPB (Insulation resistance, Contact resistance, Hipot Test).
 - Oil immersed Transformers test (Ratio, Winding Resistance, Vector group, Dissipation power factor, Winding insulation test, SFRA & DFRA, Dielectric oil test, mechanical protection function test, bushing CT, Magnetic balance, Excitation current test, Sound level, etc.).
 - Cast Resin Dry type transformer test (Ratio, Winding resistance, Vector group, Insulation test, LCP Function test).
 - Bus Bar stability test.
 - ATS & MTS.
 - HSBT - GE Manufacturer (High speed bus transfer).
 - 125 & 220 VDC Battery Chargers function test (BORRI Manufacturer).
 - UPS & DC (BORRI Manufacturer) System function Test.
 - SWGR Arc protection relay test.
 - VCB & ACB Test (HYUNDAI Manufacturer) (Closing & Opening time, Contact resistance, Insulation test, Function test).
 - Metering Ckt.s Calibration.

- MV / LV SWGR (CT & PT) Test.
- LV SWGR & MCC auxiliary relay test (GFR & EOGR).
- Metering Ckt.s (Tariff Metering, Digital Power meters, Analog ammeters & voltmeters).
- Alarm & Fault Monitoring System.
- CT test (Ratio, Saturation Curve Knee point, Resistance, Burden, polarity).
- Bus Bar test (Stability, 1/R, Contact resistance & Hipot test).
- Battery (Charging & Discharging) Test.
- Power & Control cables test.

Dates : From Jun. 2011 till Feb. 2015

Employer : SIEMENS – KSA

Job title : Site Manager

Job Description :

- Reinforcement of MISKAH S/S (132/33KV) in Qassiem Area: Reinforcement of 132/33KV Substation No. 8804 at MISKAH, QASSIEM, KSA Consisting of (2) No's Power Transformer 160 MVA - HYUNDAI Manufacturer, (2) No's Auxiliary Transformer 300 KVA, Transformer Protection & Control System, AVR SPAU 341C, load shedding, Battery Chargers & Batteries, DC Boards, Low & Medium Voltage Cables, Lightning poles, S/S Lighting, firefighting and All Necessary Civil and Mechanical Works.
- 132KV Outdoor Switchyard & Four 132KV Capacitor Bank Units (15 MVAR) at 132KV HARAHAH-1 S/S (KSA Southern Area): Installation of 132KV Outdoor Switchyard (132KV Bus Bar) 10 Bays (Double Bus Bar Single Breaker, 132KV Outdoor CBs & D. Switches, E. Switches, 132KV Line PTs, Line CTs (Bushing Type, Surge Arresters. Circuit Switches), Four x 15 MVAR, 132KV Capacitor Bank Units, Protection & Control Equipment for BB Protection ABB REB 650, 132KV Lines Protection Main/Backup Protection (ABB RED 670, MICOM P546), Breaker Failure ABB REQ 650, Capacitor Bank Protection), Battery Chargers and Batteries.
- Extension of Six Substations, Najran Project - (Khalidyah & Habuna S/S):
 - 132/13.8KV Khalidyah S/S: Reinforcement of khalidyah S/S: Installation of 13.8KV ABB MV SWGR (fifteen Feeders), installation of three 13.8KV - 8MVAR/Each Capacitor bank, Protection panels, ATS, Load shedding, Battery Chargers & Batteries, DC Boards, RTU, Interface, Firefighting, Lighting, Civil work.
 - 132/33/13.8KV Habuna S/S: Removing of the Old 2 x Existing Main Power Transformers (132/33/13.8KV - 12.5MVA), Civil Work - Remove the old Transformer Foundation and make new foundation rail type, Installation of 2 x Main Power Transformers 132/33/13.8KV - 140MVA (ALSTOM), Install 2 x Incomers for 13.8KV SWGR, install 2 x Feeders on 13.8KV SWGR, Install 2 x Feeders On 33KV SWGR, Modification of 33KV SWGR (CT Installation, Protection & Control Panels, Removal of old electro-mechanical Relays and Installation of New advanced Relays MICOM, ABB and Siemens Relays on SWGR, Install new Digital Meters etc.), Installation new Transformer Protection Panels, Installation of Transformer AVR Panels, Battery Chargers &

Batteries, DC Boards, Firefighting, Communication panels (Interface, RTU, Fox), Distribution boards and Lighting system.

Dates : From Oct. 2010 till May 2011
Project : EI-Kureimat II 750MW CCGT
Job title : Electrical Maintenance Engineer
Job Description : Field Electrical Maintenance Engineer: Generator maintenance, Power transformers maintenance (16.5/220KV, 180/240/300 MVA), Unit Auxiliary Transformers (16.5/6.3KV 19.2/32 MVA), Dry Type Transformers (6.3/0.4KV), MV Switchgear Maintenance, MV & LV Motors (6.3KV & 0.4KV), MCCs, 220KV GIS (One and Half Circuit Breaker - SF6), Batteries & Battery Charger, SEE & SFC & UPS.

Dates : From Feb. 2007 till Oct. 2010
Employer : Upper Egypt Electricity Production Company (UEEPC)
Project : EI-Kureimat II & III 750MW Combined Cycle Gas Turbines
Job title : Electrical Testing & Commissioning Engineer
Job Description :

- UEEPC Representative.
- Electrical works include: Reviewing the Electrical Deliverables according to the contract specification. Method Statements, FAT Tests, Materials Specifications, Power System studies, Layout Drawings, SLD, Protection & Control Scheme, Cable Sizing, Equipment Sizing, Cable Schedule, interlock system, Alarm & Control Signal List Testing Result, etc.
- Construction work: Installation of Electrical (Protection, Control and Metering) Panels, Main GSU transformer (HYUNDAI, 300 MVA Step up Transformer 16.5/220KV), Auxiliary power transformers (HYUNDAI, 32MVA - Step Down Transformer 16.5/6.3KV), Generator C.B (16.5KV Vacuum, ABB), MV Switchgear (Siemens/ NATUS /Vacuum C.B 6.3KV), LV Switchgear (MCCB's - 400VAC), DC System (Batteries & Battery Charger), UPS, MV & LV Motors, Dry Type (6.3KV/400V) Transformers, Indoor/Outdoor lighting System.
- Responsible for Testing & Commissioning Activities: Protection & control panels of Generator (main relays testing), Transformer testing (Mech. Protection devices, IR Test, Turns Ratio, Vector group, Magnetic balance, Winding Resistance, Zero Sequence Impedance, Tan Delta, SFRA, DFRA, Mechanical Protection Relay test, OLTC Function test and Dielectric Oil test (DGA & Breakdown), LCP Function test, etc.), Main relays test (Differential & Distance), Power & Control Cables Test, CB (220KV GIS & 6.3KV & 400 V) Close/Open Time, Contact resistance, Insulation test, Hipot Test, Scheme check, Interlock Checking and Function Test), Bus Bar Test (Insulation, C/R, Stability, Hipot), Generator 300MVA Tests, Stator insulation test, Rotor insulation test, Winding Resistance of field Winding, CT Tests (Insulation, Saturation Curve, Polarity, Ratio, Resistance and burden). VT Tests (Ratio, Insulation, Burden, Winding resistance), advanced relay testing (XFMR Protection, Gen. Protection, Feeder Protection, Bus-Bar Protection, Motor Protection, etc.), Function test for all Control, Aux. & Distribution panels, Metering Circuit Testing/Calibration, Motor tests (Solo Run Test, Phase Rotation, Insulation and DC Resistance test etc.), Batteries & Battery charger test, Testing of H.V Cables (Insulation & Hipot test), Loop check

and continuity test, etc.

Dates : From Jul. 2006 till Feb. 2007

Employer : Lafarge Titan

Project : Cement Factory

Job title : Electrical Engineer

Field of experience :

- Strong Experience in Energy Field "Green Field & Brown Field" Projects.
- Knowledge of Codes/Standard requirements " NFPA, NEC, IEEE, IEC, ANSI, etc.
- Client Specifications "UEEPC, SEC_GEMSS, MARAFIQ and ROYAL Commission".
- Following Safety Rules and Requirements.
- Design & Design Review Experience.
- Electrical Control & Protection System "Testing & Commissioning of advanced Relays".
- Testing & Commissioning Experience H.V, M.V and LV SWGRs.
- Electrical Equipment Assembling/installation Experience.
- PLC_ Programmable Logic experience.
- Fault Troubleshooting and RCA/Technical Reports Preparation.
- RFQ and MTO Preparation.