

Senior Electrical Protection & Commissioning Engineer

Holds a B. Sc. in Electrical Power & Machines Engineering and has about 14 years hands-on experience in low, medium voltage and high voltage power transmission substations as Senior Lead Electrical Protection and Commissioning Engineer, responsible for commissioning for all protection and control schemes of switchgears and GIS (13.8, 132, 110 & 380KV) levels, protection and control schemes for Power transformers (control, protection & AVR panels) ,all protection and control panels for OHL, UGF & BUSBAR protection panels, checking all CT, VT, trip circuit and trip circuit supervision, also confirming all interlocking circuits.

PERSONAL DATA

Nationality : Egyptian
Birth Date : 12/06/1980
Gender : Male

EDUCATION

: B. Sc. in Electrical Power & Machines Engineering, Tanta University, 2003

LANGUAGES

Arabic : Native Language
English : Good

COMPUTER SKILLS

: Windows, MS Office, Internet
: ABB SOFTWARE (PCM 600 & REBWIN)

CHRONOLOGICAL EXPERIENCE RECORD

Dates : From Mar. 2011 till Dec. 2016
Employer : Dar Engineering
Projects :

- Taif East, 380/110KV (Protection & control schemes: ABB, Main Relays: ABB & MICOM, 380 & 110 GIS: ABB & HYUNDAI)
- Makkah Central, 380/110KV (Protection & control schemes: ABB, Main Relays: ABB & SIEMENS, 380 & 110 GIS: ABB & HYUNDAI, MV switchgear: ABB)
- Mashaer, Makkah 380/110KV (Protection & control schemes: SEB, Main Relays: SIEMENS & SEL, 380 & 110 GIS: ABB & HYUNDAI, MV switchgear: ABB)
- HHR4, Rabigh, 380/33KV (Protection & control schemes: ABB, Main Relays: ABB & ALSTOM, 380 & 110 GIS: ABB, MV switchgear: SIEMENS)
- Shamia -1, Makkah, 110/13.8KV (Protection & control schemes: ABB,

Main Relays: ABB & SIEMENS, 380 & 110 GIS: ABB, MV switchgear: ABB)

- BATHA, Makkah, 110/13.8KV (Protection & control schemes: ABB, Main Relays: ABB & SIEMENS, 380 & 110 GIS: HYUSUNG, MV switchgear: ABB)
- TAEF 2, 110/13.8KV (Protection & control schemes: ABB, Main Relays: ABB & SIEMENS, 380 & 110 GIS: HYUNDAI, MV switchgear: ABB)
- Jabel Omar, Makkah, 110/13.8KV (Protection & control schemes: ABB, Main Relays: ABB & SIEMENS, 380 & 110 GIS: ABB, MV switchgear: ABB)
- Services, Makkah, 110/13.8KV (Protection & control schemes: Schneider, Main Relays: SEL & SIEMENS, 380 & 110 GIS: HYUSUNG, MV switchgear: ABB)
- Wali Al Ahd, Makkah, 110/13.8KV (Protection & control schemes: ABB, Main Relays: ABB & MICOM, 380 & 110 GIS: HYUNDAI, MV switchgear: ABB)
- Arafat 2, Makkah, 110/13.8KV (Protection & control schemes: ABB, Main Relays: ABB & MICOM, 380 & 110 GIS: HYUNDAI, MV switchgear: ABB)
- Makkah North, 380/110KV (Protection & control schemes: ABB, Main Relays: ABB & SIEMENS, 380 & 110 GIS: ABB, MV switchgear: ABB)
- Aziziah 3, Makkah, 110/13.8KV (Protection & control schemes: SEB, Main Relays: SEL & SIEMENS, 380 & 110 GIS: HYUNDAI, MV switchgear: FANAR)
- Sharaia 2, Makkah, 110/13.8KV (Protection & control schemes: ABB, Main Relays: SEL & SIEMENS, 380 & 110 GIS: HYUNDAI, MV switchgear: ABB)

Job title : Senior Electrical Project & Commissioning Engineer

Dates : From 2009 till 2011

Employer : Electrical Relays Center Company, KSA

Projects :

- 8136 S/S, Riyadh, 132/13.8KV (Protection schemes: SIEMENS, Main Relays: ALSTOM & SIEMENS, GIS: HYUNDAI, MV switchgear: ABB)
- 8139 S/S, Riyadh, 132/13.8KV (Protection schemes: ABB, Main Relays: ABB & AREVA, GIS: HYUNDAI, MV switchgear: ABB)
- 8135 S/S, Riyadh, 132/13.8KV (Protection schemes: ABB, Main Relays: ABB & AREVA, GIS: HYUSUNG, MV switchgear: ABB)
- 8133 S/S, Riyadh, 132/13.8KV (Protection schemes: ABB, Main Relays: ABB & AREVA, GIS: HYUSUNG, MV switchgear: ABB)
- 8711 S/S, KHARJ, 132/13.8KV (Protection schemes: AREVA, Main Relays: AREVA & SIEMENS, GIS: HYUSUNG)
- 8712 S/S, AFLAJ, 132/13.8KV (Protection schemes: AREVA, Main Relays: AREVA & SIEMENS, GIS: HYUSUNG)
- 8866 S/S, Qassem, 132/13.8KV (Protection schemes: AREVA, Main Relays: ABB & AREVA, GIS: HYUSUNG, MV switchgear: Schneider)
- 8128 S/S, Riyadh, 132/13.8KV (Protection schemes: AREVA, Main Relays: ABB & MICOM, GIS: HYUNDAI, MV switchgear: Schneider)

Job title : Senior Protection Engineer

- Job Description** : Senior Electrical Protection and Commissioning Consultant for HV & EHV Power Transmission substations for Saudi Electricity Company (SEC) for central and western regions responsible for:
- Conformity and review for protection, control schematics designs and main equipments to make sure the absence of incompatibility with standards and specification of NG-SA (TMSS & PTS).
 - Prepare new and modify existing drawings including relay panels arrangements, single lines, three lines, AC schematics, DC elementary, equipment wiring, and relay panel wiring.
 - Review substations base designs for all equipments.
 - Responsible for time and quality management for optimal use for the time by using some techniques like Check list, three week schedule, time utilization statistics sheet, sample check and marked up drawings.
 - Interfacing with project partners like consultants, projects, suppliers, engineering department.
 - Getting the best results in short time.
 - To do reporting and documentation work for higher management to give an accurate perception about the current situation of the project.
 - Reviewing all final settings calculations and parameters for main protection and control relays confirming that is matching with actual data of equipment's like current transformer, voltage transformers, measured line parameters, power transformers data and short circuit current of bus bar or cables.
 - Review, monitor and report on progress of work and to comment on contractors effective remedial measures to recover any slippages on the progress.
 - Guide and lead Contractor's commissioning team to perform work in accordance with Contract requirement.
- Dates** : From 2005 till 2008
- Employer** : Electrical Relays Center Company, KSA
- Projects** :
- 80 S/S stuck breaker project: Protection schemes design settings calculations and commissioning for adding stuck breaker schemes & Relays for 80 substations
 - 30 S/S bus bar protection project: Design and commissioning for added bus bar protection Scheme, for 30 substations with all modifications required Low impedance relays
 - S/S 7919: Testing & Commissioning Team Leader for protection relays and protection scheme function check
 - ARAMCO Project: Install and commission for new medium voltage and low voltage Network in Petrol birth in Yanbou
 - Al Ganadriya project: Install and commission for new medium voltage network in Riyadh
- Job title** : Electrical Protection Engineer
- Job Description** :
- Prepare all documents for the projects like drawings, catalogs and technical specifications as per client Requirements.
 - Managing and supervising all installation work, modifying the schemes to be matching with existing Schemes doing all interfaces design.
 - Testing and commissioning of all protection relays doing all required tests like checking scheme functions check, Secondary & primary injection, stability and high voltage test.

- Planning and scheduling of technical meetings with clients, contractors, suppliers providing overall schedule with details of work completion, supplying materials, installation and commissioning progress.
- Experience achieved (MV, HV, EHV switchgear GIS):
 - Testing and checking for equipment's of GIS switch gear (One and half breakers, double bus bar and single bus bar. Checking the conformity with Factory acceptance tests (FAT) and base design.
 - Control schemes design reviewing with function checking for all local control panels (Icc), confirming that all operations and Interlocks conditions of breakers, isolators and disconnecters are identical to Safe operation and maintenance requirements as per standards and specifications, depending on my knowledge and achieved field experience to correct and modify any found irregularities.
 - Checking all interface with GIS and remote panels like protection panels, transformers, AC, DC Distribution panels that are identical to drawings based on cables and wires schedule list in terms of Schemes requirements Color coded, cross Section, approved manufacturer and ferrule or cable tags, as per followed specifications and standards (TMSS, IEEE).
 - Checking of all interfaces of alarms, statuses & commands locally & remotely RTU for Scada substations (HMI & Gateways) for automation substations (SAS).
 - By injection confirming of bus bar differential protection stability (380, 132, 110, 33 and 13.8KV), transformers stability, Reactors stability.
- Relays and Protection Panels:
 - Protection panels schemes (drawings) functions check confirming matching with PTS (Project Technical Specifications) and approved standards, suggesting any required modifications in case of mismatching depending on my experience and knowledge specially for (Protection trip Logics, DC loop, Ac loop, trip circuits super vision and relay and metering one line diagrams) for OHL and UG, Power transformers, shunt reactors, high impedance and low impedance bus bar protection, breaker fail and capacitors banks protection panels.
 - Also checking all alarms from sources to annunciate, RTU (Scada) & (Gate ways & HMI) of SAS (Substation Automation Substations) as per specifications and standards, modifying any mistakes and adding required signals.
 - Commissioning of main protection devices like Review all settings values and calculations before implementing to relays finding any Abnormal or mismatching values or functions with standards, PTS, protection logic or distribution, transmission Networks also Confirming that setting calculations are as per actual data of related equipments like current Transformers, voltage Transformers, power transformers, short circuit level for bus bar or cables and Line parameters like (ABB, SIEMENS, ALSTOM) relays.
- Control Panels:
 - Control panels schemes reviewing and confirming that are matching with PTS (Project Technical Specifications) or approved standards suggesting any required modifications in case of violation of the operation and maintenance requirements depending on my

experience & knowledge with standards.

- The control panels like:
 - Automatic voltage regulator panel (AVR or RTCC).
 - Automatic Bus Transfer Switches (ABTS).
 - Automatic Capacitors control Switching (ACCS).
 - Under voltage & under frequency relays testing and scheme check (Load shedding) panels.
 - Synchronizing check panels.
- Substation auxiliaries:
 - ACDB & DCDB schemes function checking with MCCB testing.
 - Batteries and battery chargers testing.
 - Substation automation systems (SAS) commissioning.

- Dates** : From Aug. 2003 till Sep. 2005
- Employer** : Technical Electromechanical Office, Cairo
- Projects** :
 - Project of installation low and medium voltage electrical network for national central of researches
 - Project of installation of low and medium voltage network for social and sportive Clubs in Sheikh
 - Project of design and commission for environmental systems controller panels to all hotels and building on River Nile
- Job title** : Project Engineer
- Job Description** :
 - Responsible for technical and financial for all materials of the project in the budget, to scope of work and maintain quality.
 - Planning and scheduling for technical meetings with clients, contractors, suppliers providing overall Schedule with work completion, supplying materials, installation and commissioning progress.
 - Managing manpower on the sites for their daily activity according to schedule and milestone.