

Holds a B. Sc. in Electrical Power Engineering and has over 13 years hands-on experience working in I&C at Power Plants.

PERSONAL DATA

Nationality : Egyptian
Birth Date : 16/02/1978
Gender : Male
Marital Status : Married
Residence : Damanhour

EDUCATION

: B. Sc. in Electrical Power Engineering, 2003

LANGUAGES

Arabic : Native Language
English : Good

COMPUTER SKILLS

: Windows, MS Office, Internet

TRAINING COURSES AND CERTIFICATIONS

- : SPPA-T3000 Engineering, Maintenance & Service training in Siemens Power Academy at Karlsruhe, Germany.
- : SPPA-T3000 Administration and commissioning training in Siemens Power Academy at Karlsruhe, Germany.
- : Gas Turbine Maintenance Training in Siemens Field Service Training Center Gas Turbine at Berlin, Germany.
- : At Abu Qir Training Center:
 - DCS operation and maintenance.
 - Combined Cycle Power Station operation.
 - Measurement and control instruments in Combined Cycle Power Station.
- : Harmony architecture, Harmony HW and SW configuration, module configuration and maintenance with function code and composer, PGP3.x operator work place introduction and maintenance by ABB Company in Egypt.

CHRONOLOGICAL EXPERIENCE RECORD

Dates : From Apr. 2018 till now
Employer : Middle Delta Electricity Production Company (MDEPC)
Project : Nubaria Combined Cycle Power Plant 2250MW (3x750MW)
Job title : I&C Maintenance Engineer
Job Description :

- Prepare and release I&C maintenance procedures for the plant equipment.
- Define the schedule for maintenance of equipment.
- Lead and carry out I&C maintenance activities.
- Onsite service and fault finding and administration of DCS systems to ensure required performance and availability.
- Responsible as I&C engineer for minor/major inspection for the plant.

Dates : From Jun. 2017 till Apr. 2018
Employer : Siemens (Shanahan Engineering Company)
Project : New Capital Power Project (EGYPT) - 4800MW combined cycle, Control System T3000 Siemens, consists of:

- 8 GT Siemens Type SGT5-8000.
- 8 HRSG Siemens.
- 4 Steam Turbines Siemens Type SST5-5000.

Job title : I&C Commissioning Engineer
Job Description :

- I&C Commissioning and Start-up Engineer for Siemens SPPA-T3000 units and its auxiliaries.
- Installation, Calibration and commissioning of all Field Instruments such as Gauges, Thermocouples, RTD's, Solenoids, Transmitters, Fire detectors, Flame detectors, Vibration, speed sensors, Switches, etc. and Controllers.
- Installation, Calibration and maintenance of different types of valves like Motorized, hydraulic and pneumatic valves.
- IGV / VGV,s Calibration and commissioning.
- Pre-Commissioning Activities like Continuity check, Loop Check, Leakage Tests, Functional Check of the PCC and Circuit Breakers with the Control System.
- Vendor Drawing Review; Inspection of the Field Instruments Detailed Engineering Activities for Instruments like I/O lists, Loop Drawings & Interconnection Drawings.
- GT Start-up, Synchronization and Troubleshooting by analyzing the Trends, alarm logs and wints.
- Project Documentation reports & preparation of As-Built drawings.
- Assistance of Control System Logic, PLC , P&ID's etc.
- Creating new logic, modification, simulation of Siemens Control system SPPA-T3000 and respective Commissioning.

Dates : From Jan. 2017 till Jun. 2017
Employer : Middle Delta Electricity Production Company (MDEPC)
Project : Nubaria Combined Cycle Power Plant 2250MW (3x750MW)
Job title : I&C Maintenance Engineer

Job Description :

- Responsible for maintenance and repairment activities of electronic machine equipment.
- Responsible for implementing electric/electronic maintenance programs during planned maintenance.
- Responsible for fixing issues on machines related with electric/electronic, developing permanent solutions for repetitive issues.
- Work with mechanics and shift engineers to fix the issues on machine, analyze breakdown to reach root cause and put action plan to avoid reoccurrence.
- Assist in the Implementation of the maintenance repair plan for the machineries.
- Responsible for regular checks and calibrations on the electronic devices, to ensure the sensors on the machines are working properly which detect product quality (Weight control unit, packaging sensors, PLC Siemens).
- Ensure that employees under their supervision receive appropriate health & safety training and required qualifications, and are competent to do the work safely.

Dates : From Aug. 2016 till Jan. 2017

Employer : Siemens ([EGYPTROL](#) Company)

Project : Beni Suef Power Plant Project (EGYPT) - 4800MW combined cycle, type SCC5-8000H, Control System SPPA-T3000 Siemens, consists of:

- 8 GT Siemens Type SGT5-8000.
- 8 HRSG Siemens.
- 4 Steam Turbines Siemens Type SST5-5000.

Job title : I&C Commissioning & Maintenance Engineer

Job Description :

- I&C Maintenance and Start-up Engineer for Siemens SPPA-T3000 units and its auxiliaries.
- Work in conjunction with the DCS to accurately complete the instrument check outs, instrument maintenance, valve set up, calibrations and stroke testing, system function testing, troubleshooting /rectification.
- Carry out the works by system, as directed by the I&C Lead, to meet the commissioning schedule and sequence.
- Train others in proper, effective use, maintenance, and troubleshooting of systems and networks.
- Complete and provide all testing and verification documents to the TOP Teams to support the handover process.
- Provide "As Built" red line drawings and documentation for any changes or modifications.
- Provide detailed information to the I&C Lead for the preparation of the required daily and weekly Project Reports.
- Ensure that all maintenance activities are completed in accordance with the Project Health, Safety, Security and Environmental requirements.
- Creating new logic, modification, simulation of Siemens Control system SPPA-T3000 and respective maintenance.

Dates : From Jun. 2012 till Aug. 2016

Employer : Middle Delta Electricity Production Company (MDEPC)

Project : Nubaria Combined Cycle Power Plant 2250MW (3x750MW)

- Job title** : I&C Maintenance Engineer
- Job Description** :
- Attending installation, commissioning, start-up and make all tests for wet compression system.
 - Good knowledge of instrumentation fundamental (trouble shooting, maintenance & calibration).
 - Maintenance of air compressors (Atlas Copco stationary compressors).
 - Maintain, repair & check all operating pressure, temperature, level sensors and make all maintain and program control panel.
 - Specification in pressure, flow, temperature (thermocouple, RTD), level & vibration (elements / transmitters).
 - Monitor, troubleshoot & maintenance control valves.
 - Maintenance flame monitors and flame detector.
 - I finished with my work group the all work on eight major inspection on(GE Frame 9FA / SIEMENS V94.3A Unit Gas Turbine).
 - Disconnect and remove all tasks cables.
 - Remove all actuators valves and make all procedure and maintenance it.
 - Remove all pressure, temperature and vibration sensor and make the needed calibration to it.
 - Make maintenance for the ignition and blow off valves.
 - Make maintenance for the self cleaning system and dust collector.
 - Make maintenance for all teleperm, governor, excitation and SFC cabinet.
 - Make maintenance and calibrate the POSITION TRANSMITTERS of control valve.
 - Make tests for all gas turbine control system.
 - Calibrate the switches of shut off valve and E.S.V for gas and oil.
 - Calibrate and test all tasks on the control panel.
 - Calibrate ant test the co2 fire system.
 - Test all tasks after construction.
 - Check the alarm system and solve any problem on it.
 - Start-up the unit.
 - Responsible to calibrate all the gas flow devices.
 - For GE Gas Turbine Frame 9FA Control system Mark VIe 2x250MW - Upgrading the old GE control system Mark VI to Mark VIe control system:
I&C Commissioning, Maintenance and Start-up Engineer in GE 9FA Gas Turbine in the following experience fields:
 - Mark VIe control system (Toolbox & cimplicity).
 - Gas Turbine Mark VIe Protection Systems.
 - Calibration of all field instruments and testing, installation of all turbine supervisory instruments (TSI),Vibration probes and proximity transducers.
 - Hazard Gas System.
 - Trouble shooting of GE gas turbine alarms and failures.
 - Working as I&C engineer during the warranty inspection of two GE gas turbines.
 - Making loop check and sequence check of all Mark VIe signals.
 - Working as an I&C owner during the commissioning and start up of GE gas turbine.
 - Software introduction (functions/modules/tasks/pins, using

sequences, Macros).

- Finder, forcing signals, changing control constants, alarm tracing, diagnostic, Saving, log reports, validate, build and download.
- Toolbox options (I/O reports, hardware signals tracing, replacing I/O cards.
- Toolbox hardware and I/O definition.
- Mark VIe modules overview.
- Cimplicity and toolbox trends.
- Device summary and piping schematics.
- GT basics study and principle of operation.
- Mark VIe panel layout.
- I finished with my work group the all work on many major inspection on GE Gas Turbine Units.

Dates : From Dec. 2011 till Jun. 2012
Employer : [EGYPTROL](#)
(I&C Commissioning subcontractor for Ansaldo Energia)
Project : 6th October Power Plant - 600MW Simple Cycle
(GTs Ansaldo ABB control system)
Job title : I&C Maintenance & Start-up Engineer
Job Description : Responsible for commissioning, start-up and operation of Ansaldo gas turbine (4x150MW) (AE94.2) and its related auxiliaries such as:

- Lubrification & lifting oil system.
- Hydraulic oil system.
- Hydraulic clearance optimization system (HCO).
- Start system architecture (SFC).
- Purging water system.
- Compressor cleaning system.
- Blow off system.
- Intake & GT damper system.
- Fuel gas final filtration system.
- Closed cooling system.
- Vibration monitoring system.
- Fire fighting system.
- HVAC system.

Dates : From Dec. 2010 till Dec. 2011
Employer : Saudi Arabian Engineering Co. Ltd. (SAECO), KSA
Projects : Jazan, Aseer and Shaypah Power Plants
Job title : Projects Manager Engineer for I&C maintenance and start-up GE & Siemens Power Plants
Job Description :

- I&C Commissioning & Maintenance and Start-up Engineer for Siemens Gas Turbine 65MW (Txp) and GE Mark VIe Power Plants.
- Creating new logic, modification, generation, transfer, simulation of Siemens & GE Mark VIe and respective Commissioning.
- GT Start-up, Synchronization and Troubleshooting by analyzing the Trends using GE-Toolboxst & alarms in CIMPLICITY (HMI).
- Calibration, Installation, Instrumentation piping of all Field Instruments such as Gauges, Thermocouples, RTD's, Flow meters, Solenoids,

Transmitters, Fire detectors, Flame detectors, Vibration and Mag-pickups, Switches, etc. and Controllers.

- Pre-Commissioning Activities like Continuity check, Loop Check, Leakage Tests, Functional Check of the PCC and Circuit Breakers with the Control System.
- Vendor Drawing Review; Inspection of the Field Instruments Detailed Engineering Activities for Instruments like I/O lists, Loop Drawings & Interconnection Drawings.
- GT Start-up, Synchronization and Troubleshooting by analyzing the Trends, alarm logs and wints.
- Project Documentation reports & preparation of As-Built drawings.
- Assistance of Control System Logic, PLC Ladder, P&ID's, etc.
- Design and execute electrical and control panels.

Dates : From Aug. 2010 till Dec. 2010
Employer : [EGYPTROL](#) (Operation & Commissioning subcontractor for Toshiba)
Project : Sidi Krir Power Station (750MW Combined Cycle), CP-117 & 118
Job title : I&C Maintenance & Start-up Engineer
Job Description : Responsible for:

- Condensate water system.
- Demi water system.
- Potable water system.
- Circulation water pumps.
- Service water system.
- Closed cooling water system.
- Feed water system.
- Fuel oil system.
- Fire alarm system.
- Waste water system.

Dates : From Aug. 2007 till Aug. 2010
Employer : Middle Delta Electricity Production Company (MDEPC)
Project : Nubaria Combined Cycle Power Plant 2250MW (3x750MW):
Three modules, module I & II consists of:

- Two Siemens CTG 250 MW type V94.3A.
- Two horizontal Alstom HRSG, DCS alspsa 320.
- One Mitsubishi STG 250 MW (HP, IP, LP).

Module III consists of:

- Two GE CTG 250MW, Mark VI.
- Two STF HRSGs.
- One Alstom STG 250MW (HP, IP, LP).

Job title : I&C Maintenance Engineer
Job Description : Good experience in Siemens Gas Turbine V94.3A (Txp) in the following systems:

- Familiar with the control systems (AS620T) for modification, troubleshooting and buck up .

- Troubleshooting of the control system problems.
- Familiar with gas turbine tuning and optimization.
- Analysis hardware and software errors.
- Dealing with the input/output cards, installation, Programming and faults recovery.
- Fault analysis using the OM 650 display facilities.
- Tools for system analysis, administration, event managing of OM650.
- PLC Siemens S7 programming and troubleshooting.
- Start-up and shutdown the unit of gas turbine.
- Drawing Review; Inspection of the Field Instruments Detailed Engineering Activities for Instruments like I/O lists, Loop Drawings & Interconnection Drawings.
- Perform the routine maintenance of the system Components.
- Calibration of the field devices (transmitters, switches.....etc.).
- Temperature sensors (RTD and thermocouple) faults recovery.
- Calibration, Installation, Instrumentation piping of all Field Instruments such as Gauges, Thermocouples,
- RTD's, Flow meters, Solenoids, Transmitters, Fire detectors, Flame Scanners, Vibration and Mag-pickups, Limit Switches etc and Controllers.
- Calibration & Installation and maintenance of different types of valves like AUMA valves, hydraulic valves and solenoid valves.
- Pre-Commissioning Activities like Continuity check, Loop Check, Pneumatic Leakage Tests; Functional Check of the MCC and Circuit Breakers with the Control System.
- Hot gas path inspection.
- Major and minor inspection for the gas turbine.
- Fuel gas commissioning and start-up.
- Fuel oil commissioning and start-up.
- Fuel gas system.
- Fuel oil system.
- Gas detection system.
- CO2 fire fighting system.
- Fire alarm system.
- HYDAC skid (hydraulic skid used for diverter damper system).
- BOOG air compressor.
- Atlas Copco air compressor.
- Comp Air compressor.
- Lubrification & lifting oil system.
- Hydraulic oil system.
- Purging water system.
- Compressor cleaning system.
- Blow off system.
- Intake & GT damper system.
- Closed cooling system.
- Vibration and speed monitoring system.

Dates : From Mar. 2006 till Aug. 2007
Employer : West Delta Electricity Production Company (WDEPC)
Project : Damanhour Combined Cycle Power Plant 150MW (4x25MW + 58MW)

- Job title** : I&C Maintenance Engineer
- Job Description** : Good experience in Commissioning, Calibration, Test, Installation and Maintenance for different field instrumentation as the following:
- Gas Turbine frame 5 modernization Project: Join the Substitution of GE Speedtronic Mark II with Computerized Control system ABB 800xA which used to drive Frame 5 Gas turbine (4 units) and develop experience on cold and start-up commissioning, final tunings, I/O Modifying, values editing, HW configuration and including:
 - Pre-commissioning activities like Continuity Check, Loop Check, Leakage Tests, Functional Check of the MCC and Circuit Breakers with the Control System.
 - Vendor Drawing Review, inspection of the field instruments detailed engineering activities for instruments like I/O lists, Loop Drawings & Interconnection Drawings.
 - Starting up I&C systems:
 - Control Valves (Servo, LVDT, Pressure transducer).
 - Stop / Speed ratio Valves (Servo, LVDT).
 - Pressure regulator valves.
 - Solenoid Valves and Pressure Switches.
 - Hydraulic Ratchet system.
 - Diesel and jogging turbine rotor by starting clutch.
 - Inlet guide Vanes (IGV).
 - Flame, Purge and Igniter.
 - Gas Turbine start-up, inspect synchronization, performance specifications, sequence of events and alarms by analyzing the trends.
 - Major overhauls: Perform all Functional Tests, Tunings and Cold commissioning of control loops and Instrumentations after each Gas and steam turbines and HRSG overhaul which including: Calibration, installation, instrumentation piping of all field instruments such as Gauges, Thermocouples, RTD's, Flow meters, Solenoids, Transmitters, Fire detectors Flame Scanners, Vibration and Magnetic-pickups and Limit Switches.
 - Experience in Control Systems:
 - Good experience in many control systems and strong knowledge of power plant processes control and operation philosophy (DCS Infi90 - GE Mark V - ABB 800xA - GE Mark II - Step 7 Siemens).
 - Experience in Bailey infi90 DCS HRSG NEM: Experience developed on SW configuration with function code, composer, and physical field HW layout requirements:
 - Pressure - Differential pressure - Level - Flow transmitters (Baily).
 - Pressure - Differential pressure - Level - Flow Switches.
 - Thermocouples – R.T.D.
 - On / Off Valves (motorized rotork).
 - On / Off Valves (motorized AUMA).
 - Control Valves (motorized AUMA matic).
 - Motors drive pumps control system (ABB cabinet inverter).
 - Experience in GE Mark V GE Steam Turbine and its auxiliaries: Familiar with digital control system GE Mark V, Troubleshooting of the control system problems, dealing with the input/output cards, installation, programming and faults recovery:
 - On / off motorized Valves Biffy (Italy).

- On / Off Pneumatic Valves Fisher (USA).
- Control Pneumatic Valves Fisher (USA).
- Pressure - Differential pressure - Level - Flow transmitters (Rosemount).
- Vibration sensors, differential expansion, absolute expansion detectors.
- Speed sensors and rotor axial position instruments.
- Control valves: STI (Italy).
- Pressure and temperature controllers: Ametic (USA).
- Circulation water pump, service water pump and closed cooling water pump.
- Speedtronic Mark V.
- Hydraulic control and stop Valves.
- Solenoid Valves.
- Experience in Field Calibrator Devices:
 - HART 375 communicators – Druck-UPSIII loop calibrator – Function Generators.
 - Druck DPI 610/615 Portable Pressure Calibrator Series.
 - Auma service unit PV 788 B).
- Good understanding of hydraulics & pneumatic circuitry, operation & maintenance.
- Worked as I&C Engineer in major inspection for steam turbine GE (58MW) Mark V.
- Job description for DCS:

Good experience in the control system, PLC Siemens S5 & S7, applications of microprocessors and power system stability as the following:

 - Flip-Flops -Latching circuits.
 - Digital logic circuits and logical expressions.
 - Counters.
 - Data conversions.
 - Analog to digital (A/D) converters.
 - Digital to analog converters.
 - Applications on static relays.
 - Over current relays.
 - Input / output addressing and interfacing applications.
 - The stability problems.
 - Synchronous machine.
 - Power angle curve.
 - Steady state stability.
 - Transient stability.
 - Transient stability factors.