#### 100134-ICX-14CMS-E-2002

# I&C Commissioning, Start-up & Maintenance Engineer

Holds a B. Sc. in Electrical Engineering and a post graduate Diploma in power generating plants. Has over 16 years hands-on experience in instrumentation and control systems of Steam and Combined Cycle Power Plants.

### PERSONAL DATA

Nationality : Egyptian
Birth Date : 02/03/1976

Gender : Male

Marital Status : Married

Residence : Damanhour

### **EDUCATION**

B. Sc. in Electrical Engineering, Tanta University, 2002Post Graduate Diploma in Electrical Power Station

### **LANGUAGES**

Arabic : Native Language

English : Very Good

## **COMPUTER SKILLS**

: Windows, MS Office (Word, Excel), Internet

: Documentum

# CHRONOLOGICAL EXPERIENCE RECORD

Dates : From Sep. 2018 till now

Employer : BP

**Project**: West Nile Delta Gas Development Project

Job title : I&C Commissioning, Start-up & Maintenance Engineer

Job Description : Advanced knowledge in Commissioning, Calibration, Testing, Installation

and Maintenance for different field instrumentation.

Dates : From Apr. 2018 till Aug. 2018

**Employer** : Siemens Power and Gas Division Energy Solution

Project: New Capital Combined Cycle Power Plant Project (4800MW)

Job title : I&C Commissioning, Start-up & Maintenance Engineer

#### **Job Description**

- Very good knowledge in Control System SPPA-T3000 Siemens.
- Creating new logic, modification, simulation of Siemens Control system SPPA-T3000 and respective Commissioning.
- SPPA-T3000 Engineering, Maintenance & Service.
- System: hardware and software architecture, redundancy and peripherals.
- Engineering: function diagram, plant display, archive, integrated engineering, using AF-blocks and prototypes, creating macros, creating trend displays.
- Basic operation: display navigation, alarm sequence display, trouble shooting, trends, diagnostic view, and dynamic function diagram.
- Commissioning: point view, online change of parameters, forcing ports.
- Engineering examples (practical exercises): HW-proxies, I/Os, logic, motor control, actuator, protection, closed loop controller, sup-group controller, basic and advanced graphics, display.
- Calibration, Installation, Instrumentation piping of all Field Instruments such as Gauges, Thermocouples, RTD's, Flow meters, Solenoids, Transmitters, Fire detectors, Flame detectors, Vibration and 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.

Dates : From Jan. 2018 till Mar. 2018

**Employer** : GE Energy Products

Project : West Damietta 750MW Combined Cycle Fast Track Project

Job title : Lead I&C Commissioning, Start-up & Maintenance Engineer

Job Description : • Mark VIe Control System.

- Install of Control System GE-MarkVle Control system and respective Commissioning.
- Calibration, Installation, Instrumentation piping of all Field Instruments such as Gauges, Thermocouples, RTD's, Flow meters, Solenoids, Transmitters, Fire detectors, Flame Scanners, Vibration and Limit Switches etc and Controllers.
- Pre-Commissioning Activities like Continuity check, Loop Check, Pneumatic 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.
- GT Start-up, Synchronization and Troubleshooting by analyzing the Trends using GE-Toolbox. In CIMPLICITY (HMI); Assistance of Control System Logic, PLC Ladder, P&ID's etc.
- Project Documentation reports & preparation of As-Built drawings.

Dates : From Oct. 2017 till Dec. 2017

**Employer**: TECHINT Engineering & Construction

Project: South Helwan Thermal Supercritical Steam Turbine Power Plant

(3x650MW)

Job title : I&C Commissioning, Start-up & Maintenance Engineer

**Job Description**: • Advanced knowledge in Commissioning, Calibration, Testing, Installation and Maintenance for different field instrumentation.

• Calibration and Loop Check for transmitters (pressure, level, temperature and flow).

• Calibration and loop test for RTD and thermocouples.

• Calibration and Loop Check for switches (pressure, differential pressure, level, temperature and flow switch).

• Calibration and Loop Check for valves (MOV, control valves & etc...).

• Commissioning, function test and startup works for all equipment and instruments.

 Following troubles and making statistics to evaluate cautions of these troubles.

Dates : From Nov. 2014 till Aug. 2017Employer : Hitachi Plant Technologies

Project: Banha Power Plant (750MW Combined Cycle), GE 9FA Gas Turbine

Mark VI control system

Job title : I&C Commissioning, Start-up & Maintenance Engineer

Job Description : Good experience in Commissioning, Calibration, Test, Installation and

Maintenance for different field instrumentation.

Dates : From Aug. 2013 till Sep. 2014

**Employer** : EGYPTROL – Commissioning Subcontractor for SAMSUNG C&T

**Project**: Qurayyah Independent Power Project – KSA (4000MW Combined Cycle):

• Twelve Siemens SGT6-PAC 5000F Gas Turbine Generating Units

(GTGs 229MW)

Twelve Heat Recovery Steam Generators (HRSGs)

• Six Siemens SST6-4000 Steam Turbine Generators (STGs 226MW)

• SPPA T-3000 control system

Job title : Lead I&C Commissioning, Start-up & Maintenance Engineer

**Job Description**: • Very good experience in control system SPPA-T3000 Siemens.

• Good experience in Commissioning, Calibration, Test, Installation and

Maintenance for different field instrumentation.

Dates : From Jan. 2012 till Aug. 2013

Project : Nubaria Combined Cycle Power Plant 1500MW (2x750MW)

Job title : I&C Maintenance Engineer

Dates : From Jul. 2011 till Dec. 2011 Employer : ANSALDO CALDAIE S.P.A.

**Project** : Abu Qir Thermal Power Plant (2x650MW)

Job title : Lead I&C Commissioning & Maintenance Engineer

**Job Description**: Good experience in Ansaldo Boiler in the following systems:

Burner commissioning and start-up.

FDF commissioning and start-up.

- GRF commissioning and start-up.
- Lube Oil Skid commissioning and start-up.
- Air Heater commissioning and start-up.
- All transmitter commissioning and start-up.
- All valves commissioning and start-up.

Dates : From Jul. 2010 till Jun. 2011

**Employer**: Kuwait Oil Company

Project : Maintenance of Single Point Mooring System (SPM), CALM Buoy type

Job title : I&C Maintenance Engineer

**Job Description**: Responsible for:

PLC (HIMA system).Hydraulics system.

• Calibration all pressure transmitter, level transmitter, temperature transmitter, fog detector, load pin, temperature gauges and all valves.

Dates : From Dec. 2009 till Jun. 2010

**Employer**: <u>EGYPTROL</u> (Commissioning Subcontractor for BoP contractor)

**Project**: El-Atf Combined Cycle Power Plant 750MW (2x2x1):

One module consists of:

- Two Mitsubishi CTG 250MW
- Two NEM HRSG
- One Ansaldo STG 250MW (HP, IP, LP)

Job title : I&C Commissioning, Start-up & Maintenance Engineer

**Job Description**: • Responsible for all field instrumentation:

- Calibration at EGYPTROL field calibration lab and issue certification.
- Field preparation to put instruments in successful operation.
- Instrument Loop testing.
- Troubleshooting of loops and instruments.
- Support operation team.
- Good experience in calibration, test, installation and maintenance for different field instruments in the following systems:
  - Condensate 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.
  - Main steam system.

Dates : From Jul. 2008 till Nov. 2009

**Employer** : Middle Delta Electricity Production Company

**Project**: Nubaria Combined Cycle (3x750MW) Power Plant:

Four Siemens gas turbines 4x250MW

- Four ALSTOM heat recovery steam boiler (HRSG)
- Two MITSUBISHI steam turbines 2x250MW
- Two GE gas turbines 2x250MW
- Two STF heat recovery steam boiler (HRSG)
- One ALSTOM steam turbine 1x250MW

Job title : I&C Engineer

**Job Description**: • I&C Engineer in Siemens Gas Turbine V94.3A:

- Very good experience in Siemens Gas Turbine V94.3A in the following Systems:
  - Fuel gas commissioning and start-up.
  - Fuel oil commissioning and start-up.
  - Maintenance and fault recovery for Automation control system (TELEPERM XP AS 620B) Software and its hardware Components Such as (power supply cards, CPU, interface modules and input/output cards).
  - Maintenance and fault recovery for Fail safe control system (AG 95F) software and its hardware components such as (power supply cards, CPU, interface modules and input/output cards).
  - Maintenance and fault recovery for GOVERNER system (AS 620T) software and its hardware components such as (power supply cards, CPU, interface modules and input/output cards).
  - Major and minor inspection for the gas turbine.
  - Hot gas path inspection.
  - Gas turbine tuning and optimization.
  - Troubleshooting of the control system problems.
  - Calibration of the field devices transmitters, switches, gages .....etc.
  - Calibration of all field instruments and testing, installation of all turbine supervisory instruments (TSI) (Vibration probes and proximity transducers, Speed sensors ...).
  - Fault analysis using the OM 650 display facilities.
  - Tools for system analysis, administration, event managing of OM 650.
  - Analysis hardware and software errors.
  - Dealing with the input/output cards, installation, Programming and faults recovery.
  - PLC programming and troubleshooting.
  - Temperature sensors RTD and Thermocouple faults recovery.
  - Gas detection system, fire alarm system and firefighting system.
- I&C Construction, Commissioning & Start-up Engineer in GE 9FA Gas Turbine:
  - Mark VI control system (Toolbox & Cimplicity).
  - Device summary and piping schematics.
  - Cimplicity and toolbox trends.
  - TMR Philosophy.
  - Mark VI panel layout.

- Mark VI modules overview.
- Toolbox hardware and I/O definition.
- Toolbox options (I/O reports, hardware signals tracing, replacing I/O cards & UCVX controller card, go ON/OFF line, major/minor/equal differences, Saving, log reports, validate, build, download, alarm list, constant list, Finder, forcing signals, changing control constants, alarm tracing, diagnostic Alarms).
- Software introduction (functions / modules / tasks / pins, using sequences, Macros).
- Working as I&C Owner during the commissioning and start-up of GE gas turbine.
- Making loop check and sequence check of all Mark VI signals.
- Working as I&C Engineer during the warranty inspection of two GE gas turbines.
- Trouble shooting of GE gas turbine alarms and failures.
- Hazard Gas System.
- Calibration of all field instruments and testing, installation of all turbine supervisory instruments (TSI) (Vibration probes and proximity transducer).

Dates : From Nov. 2002 till Jun. 2008

**Employer** : Middle Delta Electricity Production Company

**Project**: Damanhour 325MW Power Plant

Job title : I&C Engineer Commissioning & Maintenance Engineer

**Job Description**: Responsible for instrumentation maintenance, one module consists of:

Ansaldo steam turbine (325MW).Ansaldo Boiler, DCS Baily Infi 90.

#### Field of experience

- Very good experience in control system SPPA-T3000 Siemens.
- Very good experience in many control systems such as DCS Baily Infi 90 BMS, DCS, TSI, EHC and PLC system.
- Good experience in calibration, testing, installation, and maintenance for different field instrumentation in the following systems:
  - Ansaldo Steam Turbine:
    - Control Valves (Servo, LVDT, Pressure Transducer).
    - Stop / Speed Ratio Valves (Servo, LVDT).
    - Pressure Regulator Valves.
    - Solenoid Valves and Pressure Switches.
    - Hydraulic system.
    - 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, thrust bearing wear detectors, speed sensors and rotor axial position instruments.
    - Control Valves: STI (Italy).
    - Pressure and temperature controllers.
    - Circulation water pump, service water pump and closed cooling water pump.

- Boiler:
  - Pressure Differential Pressure Level Flow Switches.
  - Pressure Differential Pressure Level Flow Transmitters (Baily).
  - Thermocouples R.T.D.
  - On / Off Valves (motorized rotork).
  - On / Off Valves (motorized AUMÁ).
  - Control Valves (motorized AUMA matic).