100107-ICX-1CMOS-E-2001
I&C Commissioning Engineer

Holds a B. Sc. in Electronics & Communication Engineering and has over 20 years hands-on experience working in I&C, electrical operation, commissioning, start-up and LOTO / PTW.

PERSONAL DATA

Nationality	:	Egyptian
Birth Date	:	30/05/1979
Gender	:	Male
Marital Status	:	Married
Residence	:	Currently KSA

EDUCATION

: B. Sc. of Electronics & Communication Engineering, Mansoura University, 2001

LANGUAGES

Arabic	:	Native Language
English	:	Very Good

COMPUTER SKILLS

: Windows, MS Office, Internet

TRAINING COURSES AND CERTIFICATIONS

: Permit to Work (PTW for KOC, KNPC, UHP & IOCL), Confined Space Training & PTW.
: EHS Training consisting of Site Safety, Personal Protective Equipment.
: Lock out/Tag out (LOTO) Training and procedure.
: I/A Series version 8.0 DCS system: Operation training (2300) - AIM*AT (2004)- I/A series configuration Essential (2001) SFC, Pactware & SOE -On job training- I/A Series version8.0 Equipment maintenance (2200) Foxboro, Schneider Electric (Sep./Oct. 2015).
: Honeywell Experion process knowledge system, PKS GIZA Systems Company (Mar./Apr. 2014).
: Maintenance of measuring & control instruments, Middle Delta Electricity Production Company, TALKHA Power Plant 2x210MW (Nov. 2013).
: Civil defense & fire fighting, Civil Protection Department, Security Directorate DAKAHLIA (Nov. 2013).
: Turbine supervision instruments, Middle Delta Electricity Production Company, TALKHA Power Plant 2x210MW (Jun. 2013).

: East Delta Electricity Production Company, Ayoun Moussa Power Plant (2x320MW):
- Protection and control in Boilers: Observing Boilers Protection systems and the control of Boilers operation (Aug./Sep. 2003).
- Operating of Steam turbine: Observing Steam turbine operation (Apr. 2003).

: PDH & SDH Transmission Systems at ALCATEL (Egypt) (Aug./Sep. 2000): Observing transmission systems including creating ring connection between a numbers of main exchanges of "Mansoura Ring A, Mansoura Ring B".

: OCB 283 ALCATEL Exchange at TELECOM EGYPT (Jul./Aug. 2000): Observing exchange system operation including microwave systems, transmission systems, fiber optics, welding two fiber cables.

: Maintenance of Electronic Equipments at Mansoura University (Jul./Aug. 1999): Design and manufacturing of electronic circuits and boards, maintenance of color TV, cassettes, computers, etc.

CHRONOLOGICAL EXPERIENCE RECORD

Dates : From Jan. 2018 till now

Employer : SHANAHAN ENGINEERING LTD

Project : SEC PP14, KSA

PP14 consists of two (2) 3 x 1 CCPP blocks located near Riyadh, Saudi Arabia. Each power block will consist of three (3) GE 7001FA.05 Gas Turbine Generators (GTG), three (3) Heat Recovery Steam Generators (HRSGs), and one (1) GE D11 Steam Turbine Generator (STG). The plant is a 1650MW power generation site and is designed for base load operation, 24 hours a day, 7 days per week at a capacity factor of 100%.

Job title : I&C Commissioning Engineer

Job Description :
- Review & correct logic according to system narrative, system description.
- Review & correct all mapping list (soft interface signals) between any PLC & DCS with support from Yokogawa TA vendor.
- Do loop check, function check for 3 Gas compressors Atlas Copco with system siemens PLC step 7.
- Perform the installation and calibration for all instruments and control systems.
- Continuity for all Control Cables/Cold & Hot loop Check for all Systems.
- Walk down on all Systems, MLIs and follow P&ID.
- Commissioning and start-up for Gas Turbine systems:
  - Air system (Inlet & Exhaust & Cooling & Sealing).
  - Heating and Ventilation System.
  - Oil System (Lube & Hydraulic oil).
  - Liquid Fuel Oil & water injection System.
  - Atomizing Air & Purge Air system.
  - Preparing Gas treatment Area (WBH & GC & Scrubber & Ultrasonic flow meter).
  - Gas Fuel System (Calibration & Stroke valves, Test Instrument).
  - Fire protection System (Firefighting, Gas detection).
  - Cooling water System.
  - Water Wash Skid System.

  - Control system (MK VIe, Auxiliary panel).
- Commissioning and start-up for standard test:
  - Crank / false fire / First fire / Loss of flame trip test.
  - First FSNL / Speed Limitations / Over speed Trip test.
  - First Synchronization.
  - Base-Load tests (Changeovers at baseload & Water injection tuning).
  - Fuel gas and liquid fuel tuning.
  - Run back / Load rejection / Island mode test.
  - Transfer Gas to ASL Liquid & Liquid to Gas test.
  - Off-line & On-line water wash.
- Performing Performance Test, Reliability Run.
- Commissioning for diverter damper (HPU) and interface signals with DCS.
- All field instruments (thermocouples, vibration, flow, pressure and level transmitters, all servo valves, and pneumatic actuators) Calibration & Installations & commissioning & loop check with control system.
- Loop check for digital valve positioner (DVP) for gas valves.
- All pneumatic valves solenoids tested &adjust all limit switches for these valves.
- IGV &VSV calibration LVDT also check servo coils current, resistance, volt.
- Dynamic sensors loop check by transducer simulator.
- Calibration IBH control valves fisher 6200.
- Calibration all cooling valves which use I\P CONVERTRT & two approximator switches.
- Calibration MOTORIZE valves & pneumatic control valves fisher 2000 when we do commission for seal oil.
- Adjust speed sensors gap and do hot loop check during turning gear work.
- APU PLC commissioning & Air intake PLC commissioning where test solenoids.
- CO2 system check all zones HEAT detectors & horns.
- CO2 Purge skid PLC CHECK with vendors.
- Seismic sensor hot loop check.
- Check all vibration sensors with vendor where we have:
  - Generator vibration sensor we do hot loop check by inject volt AC by Duck and check in the BENTLY NEVADA 3500 system.
  - Bearing vibration sensor hot loop check.
  - BLADE HEALTH MONITORING (BHM) system check.
- Check interface signal's between MARK Vie & YOKOGAWA DCS.
- Hazard gas sensor XNX, MSA reconfiguration sensor from Methane to propane & calibration the sensors by calibrated cylinder.
- Generator RTD hot loop check.
- Crank speed test where speed reach to 788 RPM.
- Redundancy controller R, S, T test at crank speed also check DC lube oil pump. 20-Function test for LCI & N2 purge skid & recirculation system at crank speed 21-Offline water wash at crank water wash 529 RPM before first fire.
- First fire, Sync for the turbine by liquid fuel (ASL).
- First energization PLC siemens step 7 for control three gas

compressor Atlas Copco.

- Where we check all field instrument motorize valve's, solenoid valve's, pneumatic valve's, Yokogawa transmitter's & temperature transmitter'.
- Review all setpoint during loop check, function test.
- DCS Yokogawa centum VP review all logic, interface signal's, review graphics & troubleshooting for any hardware problem.

Dates : From Mar. 2013 till Nov. 2017
Employer : Middle Delta Electricity Production Company
Project : TALKHA Power Plant 2x210MW
Job title : Lead I&C Engineer
Job Description :

- Commissioning of Invensys's DCS - Foxboro IA series, FGS, H2S system.
- Lead team of engineers and technicians to perform commissioning tests & function check for all instruments Skoda turbine retrofit, BMS retrofit Honeywell Experion PKS R 410, I/A Series FOXBORO DCS installation and commissioning.
- Finalizing the Plant Network from the moment of UTP cable, Fieldbus cable, patch cord, fiber optics cables Splicing follow up and Testing of cables and approving of OTDR test Reports.
- Review of Commissioning sequence and plan, development of detailed pre-commissioning and commissioning procedures for DCS loop checking, ESD and PLC logic test, test forms and Ready for Start-up for systems.
- Execute coordination & supervision Control systems discipline from start till commissioning including all necessary coordination with other facilities for interface and overall control and monitoring through ICSS.
- Prepare the calibration sequence and assist sub-contractor to prepare the calibration lab and complete the calibration as per the schedule in lab and field mounted instrument.
- To ensure all work, tests and inspections undertaken by Sub-Contractor is in accordance with the Specifications/Contract Requirements and signs the relevant Test Certificates.
- System and sub-system walkdown with construction team raise the punches proceed for closing the punches and complete the system energization.
- Testing & commissioning of all type of Gauges, Switches, Control Valves, Solenoid Valves and On-Off Valves.
- Testing and commissioning all measuring Instruments, such as Thermocouples, RTD, Brix Transmitters.
- Commissioning of plant control system and DCS system of the plant, interconnection wiring, patch cord, UTP cable and FO cable installation. Follow up with the vendor for splicing and OTDR testing of FO cable and testing of the instrument from field to DCS.
- Supervise and manage vendor engineering and equipment deliverable to ensure compliance with project.
- Supporting Invensys team in tuning PID controllers.
- Perform daily report during rehabilitation of unit #1.
- Preparing scientific materials for training.
- Training engineers & Technicians.
- Develop Safe Work Practice Procedures for all instrument

commissioning, Function Test Procedures, calibration sequence, loop checking and logic checking.

Dates : From Apr. 2011 till Dec. 2012

Employer : Kharafi National

Job Description :

- WEST DAMIETTA SIMPLE CYCLE GAS TURBINE 4x125MW "GE- MARK VI 9EA" (from Feb. till Dec. 2012):
  - SENIOR I&C COMISSIONING ENGINEER:
    - Develop Safe Work Practice Procedures for all instrument commissioning, Function Test Procedures, calibration sequence, loop checking and logic checking.
    - Review of instrumentation project documents, drawings, contract document, control narratives and vendor documents, correction and re-submission of engineering deliverables like P&ID's, IO Lists, Instrument Index, Hookups, DCS & PLC panel internal arrangement, Field control units, Cable schedule and Instrument connection diagrams.
    - Follow up of instrumentation scope of works during construction completion, loop check & pre-commissioning of plant DCS, CEMS, QMS, diverter damper and proceed for commissioning and troubleshooting after successfully completion pre-commissioning.
    - Commissioning of plant control system and DCS system of the plant, interconnection wiring, patch cord, UTP cable and FO cable installation. Follow up with the vendor for splicing and OTDR testing of FO cable and testing of the instrument from field to DCS.
    - Prepare and proceeded Site Acceptance Tests (SAT) of plant systems.
- AL-SHABAB SIMPLE CYCLE GAS TURBINE 8x125MW "GE - MARK VI 9EA" (from Apr. 2011 till Feb. 2012):
  - Commissioning & Start-up Engineer (Senior Project Engineer):
    - Perform the integrity check and first power up of control panel.
    - Perform continuity test and function check.
    - Review the calibration of all instruments.
    - Commissioning of water treatment unit.
    - Testing, commissioning and function test of electrical equipment such as low voltage, medium voltage and high voltage switchgears from DCS.
    - Carried out loop check and function test of field instrument from DCS/ESD/FGS workstations.
    - Review of vendor document like marshaling & system cabinet drawing & wiring diagram, system architecture, and interconnection diagram of DCS with other packages.
    - Involved in segregation of I/O list, junction boxes & assignment of modules during construction phase of project.
    - Prepare documents and perform Site Acceptance Tests (SAT) and Functional Checks for vendor package.
    - Review and implementing the comments as per Client requirement.

Dates : From Oct. 2009 till Dec. 2010
Employer : Cairo Electricity Production Company / PGESCO
Project : El-Tebbin Thermal Power Plant (2x350MW)
Job Title : PTW & LOTO ENGINEER
Job Description :

- To ensure all work, tests and inspections undertaken by Sub-Contractor is in accordance with the Specifications/Contract Requirements.
- Managing and authorizing the daily LOTO / PTW / TSA permitting.
- Preparation, organizing and authorizing the required forms prior the execution of all activities under the custody and control of the commissioning team.
- Supporting commissioning team in the preparation and issuing the required authorization in a timely Manner so as not to delay the schedule of daily activities.
- Perform RFFE (REQUEST FOR FIRST FIRE) Form before energizing any system.
- Supervising & Coordinating between contractors during start-up and operation of the units.
- Monitoring all contractor's activities involve with start up and operation and push them to achieve plant schedule.
- On-job Training for new engineers.
- Supporting I&C commissioning engineers during work.

Dates : From Aug. 2008 till Sep. 2009
Employer : CMI Energy Heat Recovery System CMI Energy Heat Recovery System / SKODA PRAHA
Project : El-Kureimat II Combined Cycle Power Station 750MW
Job Description :

- Pre-commissioning of equipment, field instruments and control systems and ensure the construction quality as per client specifications & standards.
- To assist construction departments by defining of priority systems according with overall construction and pre-commissioning & commissioning planning and schedule. Participate in constructability analysis to meet project schedule.
- In collaboration with other departments and vendor's representatives, where necessary, convert vendors procedures, check list and forms for commissioning accordingly to company commissioning plan, submission to management for approval.
- Testing and commissioning all measuring Instruments, such as Thermocouples, RTD, Brix Transmitters.
- Commissioning of plant control system and DCS system of the plant, interconnection wiring, patch cord, UTP cable and FO cable installation. Follow up with the vendor for splicing and OTDR testing of FO cable and testing of the instrument from field to DCS.
- Supervise and manage vendor engineering and equipment deliverable to ensure compliance with project standards and specifications.
- Testing, commissioning and function test of electrical equipment such as low voltage, medium voltage and high voltage switchgears from DCS.
- Develop punch item database by systems, checking for completion

and close-out of punch items of factory acceptance test and site acceptance test and mechanical completion package accordingly with client and company agreed standards.

Dates : From Mar. 2008 till Aug. 2008
Employer : CMI Energy Heat Recovery System CMI Energy Heat Recovery System / SKODA PRAHA
Project : New Talkha Combined Cycle Power Station 750MW
Job Title : I&C Commissioning Engineer
Job Description :

- Pre-commissioning of equipment, field instruments and control systems and ensure the construction quality as per client specifications & standards.
- To assist construction departments by defining of priority systems according with overall construction and pre-commissioning & commissioning planning and schedule. Participate in constructability analysis to meet project schedule.
- In collaboration with other departments and vendor's representatives, where necessary, convert vendors procedures, check list and forms for commissioning accordingly to company commissioning plan, submission to management for approval.
- Testing and commissioning all measuring Instruments, such as Thermocouples, RTD, Brix Transmitters.
- Commissioning of plant control system and DCS system of the plant, interconnection wiring, patch cord, UTP cable and FO cable installation. Follow up with the vendor for splicing and OTDR testing of FO cable and testing of the instrument from field to DCS.
- Supervise and manage vendor engineering and equipment deliverable to ensure compliance with project standards and specifications.
- Testing, commissioning and function test of electrical equipment such as low voltage, medium voltage and high voltage switchgears from DCS.
- Develop punch item database by systems, checking for completion and close-out of punch items of factory acceptance test and site acceptance test and mechanical completion package accordingly with client and company agreed standards.
- Carried out loop check and function test of field instrument from DCS /FGS workstations.
- Review of vendor document like marshaling & system cabinet drawing & wiring diagram, system architecture, and interconnection diagram of DCS with other packages.

Dates : From Mar. 2002 till Feb. 2008
Employer : East Delta Electricity Production Company
Project : Ayuon Moussa Power Plant 2x320MW (BAILEY DCS control system)
Job Title : I&C Maintenance Engineer
Job Description :

- Troubleshoot plant instrument problems to determine their cause and recommend options for eliminating such problems. Includes carrying out tests on equipment.
- Maintenance for all instruments in the power plant.
- Re-calibration for all field instruments (PT, DPT, LT, TT...).

- Adjust control v/vs feed back.
- Identifying and investigate the problems for troubleshooting.
- Testing and adjusting turbine monitoring system (vibration, displacement, over speed, eccentricity).
- Identifying and investigate the problems of BMS System instruments (solenoid valves, …).

Field of experience :

- Over 20 years of experience as an Instrument Engineer in the field of Instrumentation & Control System environment where executed and performed pre-commissioning and commissioning of DCS & SCADA, field instruments, Utility & BOP system and other vendor package in O&G and Power Plant.
- In-depth knowledge of instrument engineering design, vendor drawing, loop design, logic diagram, process flow diagram, functional loop diagram, datasheet, hookup drawings, wide knowledge of instrument and control applications with PLC, SCADA, DCS, HMI and Process Instrumentation.
- Proficient to read the Process Control Philosophy, Closed Loop, Open Loop, P&I diagrams, Instrument Datasheet, Cause & Effect diagrams, Instruments list, and Flow chart and implement for erection, loop check, logic check, function test, pre-Commissioning and commissioning.
- Calibration, Servicing and Maintenance of all type of Pneumatic & Electronic Pressure, Flow, Level, Temperature Transmitters, Records & Controllers (I/P Regulators).
- Familiarity with software quality engineering, architectural design, Method of statement, Inspection & Test Procedure; methods, practices and equipment used in maintaining, repairing, and testing of electro-mechanical, pneumatic, electronic, and other types of control and measuring instruments.
- Review of the final issue of PID's, Alarm Set Point List, and Cause & Effect Chart from point of view of pre-commissioning, commissioning and start-up, make report on issues of PID's, Alarm Set Point List and Cause & Effect Chart modification according with project standards and regulations and submit to engineering for modification.
- Succefully completed the pre-commissioning and commissioning of Plant DCS (I/A Series version10.0 Invensys FOXBORO, HONEYWELL EXPERION process knowledge system PKS GIZA SYSTEMS, OVATION, MARK VI, BAILEY DCS, SIEMENS STEP 7 PLUS PLC), Reciprocating/Booster Comressor, Pump House.
- Experience includes all field instruments and control systems, projects, engineering, field supervision, commissioning, site support, troubleshooting and support to operation & maintenance.
- With strategic planning and team management proficient to complete the pre-commissioning on time and given schedule.
- Have prepared the manpower requirement, vendor, and sub-contractor manpower management, to minimize the target time and achieve the target on time and as per the schedule.
- Proficient to prepare the pre-commissioning and commissioning schedule and loop list as per the project completion and construction handover schedule.
- Instrument loop check, function check, pre-commissioning,

commissioning, and start-up of utility area system.

- Interface testing - OPC and Modbus between DCS System and all other systems.
- Experience in Installation, calibration and loop checking, logic checking and function test of the field instruments (Emerson, Rosemount, ABB, Endress & Hauser, Bentley Nevada, Honeywell, FOXBORO, VEGA, Wise).
- Calibration and maintenance of the control valves (Pneumatic, Part turn, MOV, NRV, anti-surge) of Weir Black borough, Flowserve, Bray, Air torque, Copes-Vulcan, AUMA, Fisher, SAMSON, SCHIEBEL.
- Commissioning of flow meters and metering skid (electromagnetic, orifice plate, ultrasonic, turbine, variable area, FLOTECT, ULTRA OVAL) of Rosemount, KROHN, FMC, FOXBORO Technology as per the project requirement.
- Configuring & faults diagnosis of DCS, PLC, SCADA, Profibus Communication, Analyzers and Control Loops.
- Review and implementing the comments as per Client requirement.
- Designing, Implementing and Commissioning of new control loops as per site requirements.
- Familiar with the international engineering quality standards, IEC, ISA, ANSI, NEMA, OSHA, IEEE standards.
- Handover from the construction team after raising punch items and clearing it.
- Loop tuning.
- Instrument calibration, control valve calibration, MOV, ROV & ESD valve stroke checking.
- Loop and logic checking, function test using PACTWARE, HART communicator and loop calibrator.
- Field Instrument; PT, PDT, FT, TT, installation, Instrument, JB and Control panel side cable pulling and termination.
- Technical Skills:
  - DCS Software: Foxboro Fox View: I/A Series: Version: 10.2.1 I/A Release: 8.7; 2012; Provided by Invensys.
  - HONEYWELL: EXPERION process knowledge system PKS 2013.
  - SCADA Software: Wonderware (Intouch).
  - Programming of PLCs: Ladder Logic Development, Functional Block diagram.
  - HMI: Creating Applications, Downloading/Uploading Programs, Security in HMI, and PLC, HMI and SCADA communication.
  - Networking: PROFIBUS, MODBUS, Net AIC, Ethernet, Control-Net, Device-Net, MPI communication, serial communication by RS232/485.
  - Motors Starting Solution (CCD Circuits / PCD Circuits): Induction Motors, Star Delta Starters, Interlocking circuits, Panel Wiring, Relays, Contactors, Thermal overload relays.