107027-ICX-14CDEMS-E-2005

Control Engineer

Holds a B. Sc. in Electronics & Communication Engineering and has about 18 years experience working in E&I field.

PERSONAL DATA

Nationality : Egyptian
Birth Date : 20/09/1979

Gender : Male

Marital Status : Married

Residence : Alexandria

EDUCATION

B. Sc. in Electronics & Communication Engineering, A.A.S.T, 2005

: Victoria College High School, Alexandria, 1997

LANGUAGES

Arabic : Native Language

English : Fluent
Italian : Very Good
Dutch : Good

COMPUTER SKILLS

: Windows, MS Office (Word, Excel, Access, Power Point), Internet

AutoCAD 2010

: MS Project

: Automatic control simulation programs (Automation studio 5, Circuits design, pspice, RS logix pro & emulation PLC, Rs-link and RS-view of Scada System)

TRAINING COURSES AND CERTIFICATIONS

ISA CCST level 2 exam scored 68.75% in average 4 domains:

- Calibration, maintenance, repair, troubleshooting.
- Project start-up, commissioning, loop check, project organization, planning.
- Documentation.
- Administration, safety, supervision, management.

- Egyptian Water Authority Company union with EAAC Training Centre -Automatic Control, including the following courses:
 - Level 1: Classic Control Basics.
 - Level 2: Classic Control Applications.
 - Level 3: Maintenance and Troubleshooting of Classic Control Systems.
 - Analogue Control Systems.
 - Power and control circuit analysis.
 - Programmable Logic Controller (PLC):
 - LEVEL ONE: PLC BASIC.
 - LEVEL TWO: PLC ADVANCED.
 - Supervisory Control and Data Acquisition (SCADA).
- : Center Certificate Alexandria Petroleum Maintenance Training:
 - Control Valve selection & sizing, Positioners, Actuators & other accessories.
 - Developing & Applying ISA Standards instrumentation & Control.
- Don Bosco Institute Multipurpose Vocational Technical Training Course:
 - Pneumatic & electro pneumatic circuits.
 - PLC basics (Siemens s7-200).
- : New Horizons Computer Learning Center "Microsoft Certified Partner":
 - ORACLE Data Base 10g: SQL Fundamentals (Certificate 40 hrs of Completion).
 - ORACLE Data Base 10g Develop PL/SQL Program Units (Certificate 40 hrs of Completion).
 - ORACLE Data Base 10g: build internet Applications (Certificate 40 hrs of Completion).
- The Egyptian Petro-Chemicals Company (EPC) (2005): Grade Excellent in Instrumentation Training Units.

CHRONOLOGICAL EXPERIENCE RECORD

Dates : From Dec. 2022 till now

Employer : NAOC Nigeria Agib Oil Company / Obiafo Obrikom

Job title : Control Engineer

Job Description : In charge of control upgrade systems, modifications & troubleshooting in

Ebosha, Qualle, OB-OB sites for 10 SIEMENS gas compressors Allen Bradley PLC 5, logix 5 & 5000, 2 gas turbines GT frames 5, 9 Nuovo Pignone Mark VI, 2 gas compressors Schneider momentum modicon, 2 gas

compressors GE Fanuc 90-30, 90-70 (VersaPro, Logic Master).

Dates : From Sep. 2022 till Oct. 2022

Employer : Baker Hughes

Project: KARACHAGANAK Petroleum Operating B.V (KPO), Kazakhtan

Job title : I&C FSE for GT MS5002D

Job Description: In charge of major inspection overhaul outage for train A&C instrumentation

& control GT turbines, covering installation, loop check for temperature (with wheelspace) & vibration (all), speed system HP-LP bearing (with TE installation, exhaust plenum, turbine compartment, IGV, NGV, GCV, GSV with MOOG installation and test, auxiliaries, flame setectors & spark plugs installation & test, CDM probes and amplifiers replacement & test, etc.

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Dates : From May 2022 till Jun. 2022

Employer: Metka International

Project: Tobruk OCPP 4 x GT E13E2 Simple Cycle, Libya

Job title : I&C Commissioning Engineer

Job Description: Commissioning for Alstom Gas Turbine E13E2 Mark Vie control.

Dates : From Oct. 2021 till Apr. 2022

Employer : Renco S.P.A Italy – Baker Hughes

Project : NLNG Nigeria, Train 5

Job title : E&I Control Engineer

Job Description : Mark Vie Gas Turbine MS-7001EA Control Upgrade – Train 5 Installation,

Loop check, commissioning – start-up control & instrumentation for gas turbine UCP, WWCP, frame 7EA DLN-1 combustion system (MR, PR), set

up and calibration of AN200/250 IGV, dealing with toolbox 7.08, etc.

Dates : From Jan. 2021 till Oct. 2021

Employer : JEPCC1

Project: West Cairo Thermal Supercritical Power Plant 1x650MW, CP-118

Job title : E&I Commissioning Start-up Lead

Dates : From Jul. 2020 till Jan. 2021

Employer : AC Boilers

Project : South Helwan Power Plant 3x650MW

Job title : E&I Senior Commissioning & Maintenance Engineer

Job Description: In charge of unit 03 CP-105:

BMS Boiler Management System (Burners, FD Fan, RG Fan, Air heater

RAH).

DESP Dry electrostatic precipitator.

ASH handling system.

• CEMS Continuous emissions monitoring system (O2 % concentration,

opacity, No 2, CO, Sox).

Dates : From Jul. 2019 till May 2020 Employer : Veri-Tech International Egypt

Project : Abuzaabal Company for specialist petrochemicals, Ministry of Defence and

Military Production, Army Factory 18

Job title : E&I Commissioning & Start-up Manager

Job Description: In charge of Commissioning & start-up for Nitrocellulose production unit.

Dates : From Aug. 2017 till Apr. 2019

Employer : Techint Engineering & Construction

Project: South Helwan Thermal Supercritical 3x650MW

Job title : E&I Commissioning Lead

Job Description : • In charge of CP-118 for electrical and instrumentation & control system

scope.

- Field instrumentation for the pipeline systems and on packages calibration, function test, loop check & troubleshoot: (Pressure, flow, temperature, level, analytics, vibration, humidity) with various types & methods (transducers, transmitter, switches, control & shutoff valves (Siemens SIPART2, MOV (AUMA, ROTORK, BERNARD, etc.)).
- Pre-commissioning & Commissioning the MV & LV motors control circuits and & logic locally and applying protection relay parameters and CB setpoints in Switchgear/load center sides, and performing all protection tests and solo run tests, current transformers tests, cable megger tests.
- CP-118 electrical scope Termination, cold & hot function checks: precommissioning and commissioning & start-up for: Heaters in all lube oil skids, Electrical control panels system for all pump packages & skids, Super steam heater package with PID controllers' algorithms, CTM Diesel generators, electrical heat tracing system, motors terminations.
- Instrument & service air compressor package, Ingersoll Rand (Cameron) 6 centrifugal & 1 emergency screw compressors, dealing with control hard & software's configuration for Maestro Universal instrumentation & controls systems, adjusting compressors field vibration matching with 3500 Bentley Nevada configuration limits & parameters with complete function, surge lines determination tests, BOV & IGV, loop & protection tests, Master sequencer installation and start-up s7400 cpu 412-5H with Scada HMI TP900 Comfort and the remaining auxiliary system components.
- Field & control (KSB) of Start-up pump, BFWP T3000 (plc SIMATIC S7-400 redundant automation system CPU410-5H) siemens control (Boiler feed water pump) main, Booster & Turbine systems including governors Braun speed controller, Gov. control valves CPC Turbo-Machinery with redundancy I/H redundancy convertors, ESV stop valves, 3500 B.N vibration & protection, turning gear system, ...etc.
- Fire & gas detection system (SAFCO Simplex) performing full function tests, commissioning of fire pump house, solar & mazout, transformer, STG Turbine building, ...etc.
- All service skids like lube oil pumps with full function & logic tests, service water, closed cooling, circulating system, sump pumps, mazout drain & condensate tanks systems and overhead cranes & hoists controls & motors pre-commissioning and commissioning.

Dates : From Aug. 2014 till Jul. 2017 (part time)

Job Description : Projects & companies dealed with: Bureau Veritas, Halliburton, Exxon Mobil,

Pharco, GPC Abusannan.

Dates : From Feb. 2017 till Jul. 2017 Employer : Carlo Gavazzi - Siemens

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

Job title : E&I Lead Construction Engineer

Job Description : In charge of implementation & installation of 2 modules out of 4 of total

project modules: 2 Steam turbines 400MW for each, 4 Gas turbines (SGT5-8000h) each of 400MW, 6 Generators, 4 HRSG, 2 air cooled condensers,

with all required balance of plant systems.

Dates : From Jul. 2016 till Jan. 2017

Employer : Techint Engineering & Construction

Project: AL-SHABAB POWER PROJECT PHASE II - CONVERTING EXISTING

SIMPLE CYCLE TO COMBINED CYCLE

Job title : E&I Construction, Technical Office - Senior Commissioning Engineer
 Job Description : Installation of CP-118 instrumentation packages and fire system.

Revising Engineering Drawings.

 Revising Vendor Technical Submittals including Attending FAT and Participate in logic programming whenever required for compliance with information given in the contract documents as well as for suitability to field conditions and dimensions before conveying them to the Consultant/Engineer (PGESCo).

- Site Technical Support and Coordinate Between Different Parties to Optimize Project Performance.
- AutoCAD Shop drawing included all Required Calculations and Coordinating Electrical, Control & Instrumentation Works with other trades.
- Coordination between Consultant, Suppliers and Subcontractors.
- Coordinate all relevant drawings and information to eliminate interference problems.
- Carry out and issue technical reports and proposals.

Dates : From Jan. 2016 till Jun. 2016

Employer : Techint Engineering & Construction

Project: EL AIN EL SOKHNA SUPERCRITICAL THERMAL POWER PLANT UNITS

1 & 2 2x650MW GAS/OIL FIRED UNITS

Job title : E&I Commissioning Lead Engineer

Job Description : • Carry out installation, testing, & troubleshooting of Electrical-control &

instrumentation items.

 Responsible for delivering UNITS 1 & 2 2x650MW GAS/OIL FIRED UNITS commissioning and start-up guarantee phase to Egyptian Electricity Authority EDEPC.

Accomplished modification and started-up the following:

- Start-up for main auxiliary boiler including automizer foxboro control valves for both units dealing with Citect-Schneider Hmi scada system.
- Commissioning of hydrogen generation unit with adjusting & calibrating O2 GE O2x1 analyzers (% & PPM), and Gasgard xl system detection sequence accessories.
- Petra air conditioning system dealing with micro-controller (Carel) & (Comatrol) logic settings.
- Sump, Mazout, and condensate steam system pumps motor control circuits commissioning, modifying, and start-up.
- Responsible for monitoring Cameron air compressor package redundant system with troubleshooting.
- Installation of instrument (piping, tubing, and fittings), (valves & manifolds), (in-line mounted instruments and primary elements), (control valves and their accessories), (instrument panels, racks, cabinets, and related equipment).

- Installation including proper location and orientation with supplying instruments air at selected locations, calibration of instrumentation including skid mounted instrumentation, testing and start-up of instrumentation and controls.
- Electrical & instrumentation installation activities for Utilities units.
- Performance test, pre-commissioning, commissioning & start-up.
- Instrument pneumatic lines according to hook-up (pneumatic hookup check for valves according to technical data sheet).
- Instrument loop folder preparation.
- Instrument cold & hot loop check.
- Instrument functional loop check, performing cable megger test,
 P&I Diagrams checks, modification and redrafted in close cooperation of technical departments specialized in process.

DCS & ESD cabinet's installation.

Dates : From Oct. 2007 till Dec. 2015

Employer: Petromaint (Alexandria Petroleum Maintenance Company)

Job Description: Installation, commissioning & maintenance:

- Egyptian Methanex Methanol Plant Company S.A.E. APM (EMETHANEX) (from Mar. 2015 till Dec. 2015) (I&C Engineer):
 - Carry out all pm & cm programs (installation, maintenance, calibration, root cause analysis reports, spare parts follow up preparation stock & investigation with all instrumentation items status) Foxboro transmitters (flow, level, pressure, temperature), analyzers (o2, ph, TOC, cl, conductivity) including construction & commissioning phases.
 - Dedicated on various & most types of control valves for various services including steam, cryogenic (liquefied nitrogen), oxygen, applications (CCI, Masoneilan, Star, Fisher, Auma, Biffi, Siemens) (electric multi-turn actuator, diaphragm & piston actuators), troubleshooting with technical department team.
 - Preparation of Instrument List, Preparation of P&I Diagram, I/O list with calibration ranges, trips and alarms setting.
 - Preparation of Technical data sheets for various field instruments like Gauges, Transmitters, Flow meters, Switches, Control and Safety Valves, Shutdown Valves, Control Panels and Accessories, Panel Instruments and Control Systems like Distributed Control Systems, Burner Management System, Fire and Gas system and Emergency Shutdown systems.
 - Proficiency in control programming and program modification for industrial style PLC and/or PC controls a plus.
 - Experience with Windows and PLCs. Ability to troubleshoot PC errors and PLC functions remotely and on location.
 - Carry out fault finding on PLC-controlled systems, back-up programs and restore them back to PLCs.
 - Sizing Calculations for various On-line equipment like Flow elements, Control Valves and safety Valves.
 - Professional in mounting & installing Emerson fisher DVC controller various types 6000, 6200, 6010, 6020 on actuator and aware with all managing and viewing alerts of configuration using also

- Valvelink and troubleshoot them with all navigation communicator parameters.
- Maintain and troubleshoot filter press & water intake packages hydraulic automation system plc s7 200, 300 (cpu317-2dp), 400.
- Fire & gas activities (remote & local control panels with elevated monitors) and all fire & gas line detectors items area.
- Safety valves calibration and set point adjust on advanced dead weight tester with counter bubble verification.
- Safely Installing, Maintaining and Inspecting Cable Trays and cable pulling.
- Solid knowledge with grounding of instruments and control system and earthing principle structure.
- Dealing with Osha standard and WSCS (work permit control system) including all safety hazard identification procedures & certificates (working at height, confined spaces, Mechanical & electrical isolation, etc.), Maximo System, Meredian documentation system, DCS Foxboro with PI system monitoring trends.
- Egyptian Linear Alkyl Benzene (ELAB) (from Feb. 2011 till Feb. 2015) (I&C Engineer):
 - Troubleshooting of field loop instrumentation, tuning methods techniques, adapting and integration with common features control systems packages program applications PLC, DCS, ESD and network's criteria.
 - Installation & commissioning of the instrumentation modules of Hydrocarbon, Benzene, jet_kerosene & Sulfolane tanks in ELAB construction project.
 - Responsible of field's calibration with mwi, and modification tasks of field instruments and control modules under technology by UOP (an American based organization), having product LAB (linear alkaline benzene) having capacity 75000 MTA & N-PARAFFIN 65000 MTA.
 - Ft's with its different methods and applications, Lt's with different level methods (DP, displacer DLC3000, Krohne lt radar Optiwave 7300C, Vega), some types of analyzer (oxygen, ph, conductivity), TT's (T/c, rtd), Switches (PS, LS, TS, VS), Magnetic Flow meter (Khrone marshal) Mass Flow meter (Micro Motion).
 - Orifice Flow meter (Foxboro, Rosemount, ABB, Yokagawa) Vortex flow meter (Rosemount, Yokogawa).
 - Turbine flow meter (Daniel).
 - Various types of Contro valves with accessories & smart controllers (DVC & Siemens SIPART sp2) & Xv's (on/off valves with accessories).
 - Solid knowledge with plc Allen Bradley logix5000, Siemens s5, s7 300 cpu312 (wincc flexible2008 hmi), tdc3000x, BMS and its control algorithm.
 - Good handling with PFD, P&ID, instrument list, specification form, installation details & hook-up drawing, location plans, logic sequence diagrams, electrical & loop diagrams & schematic drawing, controller's tuning & process control strategies.
 - Good handling with air screw compressor operation & troubleshooting (Comp Air) control systems and its sequences.

- Good knowledge with control philosophy of Centrifugal Compressors, Reciprocating Compressors, gas & steam turbine control systems.
- Good handling with the following Instrument Test equipments:
 - ❖ Druck (DPI 615-DPI 610) pressure calibrator Druck.
 - ❖ UNOMAT temperature calibrator for thermocouples and RTD's.
 - Multifunction UPS II and Druck TRX-II.
 - HART handheld communicator 375, 475.
- Good knowledge with hazard id classification and groups (NEC & IEC) codes with appropriate mitigations.
- (AMOC) (Alexandria Mineral Oil Company site) (from Aug. 2009 till Feb. 2011) (Control System & Instrumentation Engineer):
 - Dealing with Distributed control system of HONEYWELL-TDC 3000x (TPS GUS based).
 - Preparing and achieving all preventive & corrective maintenance work for instrumentation items which covers:
 - Calibration and adjustment the field instruments like pressure, Temperature, level, Flow transmitters, vibration (Bentley Nevada) transmitters, and switches.
 - Observing the operation of Tanks' gauging system Radar and Servo-Motor (Enraf, Krohne) and adjusting the Reading to match the actual tank level dealing with the troubleshooting when required.
 - Testing and calibrating some types of analyzers (PH, O2 & Conductivity).
 - Starting up and downloading the program of program PLC SIEMENS SIMATIC S5 – 115H of the operating panel Siemens OP 17, OP27 using the program software PROTOL.
 - ❖ Performing the I/O check and checking the program logic online and making the necessary modifications in the program logics when required.
 - Working in Various Maintenance Activities including Scheduling of S/D, overhaul planning activities; prepare & inspecting of Spare parts & Instruments; Apply requirement troubleshooting/Remedy & solutions in order to optimize utilization of downtime Plant.
- (ELNG) (Egyptian Liquefied Natural Gas Project site) (from Oct. 2007 till Aug. 2009) (Instrumentation Engineer & Scheduler Planning S/D):
 - GE Nuovo Pignone Frame 5 Gas Turbine double shaft SPEEDTRONIC Mark VI Turbine control, Fuel gas control system, Lubrication system, Hydraulic Supply system.
 - Dealing with Toolbox software.
 - Fire & gas detection system troubleshooting, gas chromatography and gas analyzers.
 - Pneumatic transmitters and controllers PID tuning (Foxboro43AP & Yokogawa).
 - Participated in the preparation of MWI of the instrumentation items.
 - Co-ordinate with Planning Department to produce detailed implementation plans and Updates of all Equipments historic Records.
 - Working in Various Maintenance Activities including Scheduling of

S/D, overhaul planning activities; prepare & inspecting of Spare parts & Instruments; Apply requirement troubleshooting/Remedy & solutions in order to optimize utilization of downtime Plant.

 Obligating with all company's HSE, Hazard Area classification and work permits safety regulations.

Dates : From 2005 till Oct. 2007

Employer : Automatic Gate Systems - Fire Rated Doors

Job title : Electrical & Control Construction & Maintenance Engineer

Job Description : • Worked in MCC.

 Construction and maintenance of control and power boards, wiring and sensor accessories attached to fire rated doors equipments.

 Troubleshoot motor control circuits with schematic and wiring documentation criteria of doors and fire rated gates.

Field of experience:

Instrumentation & Control, Electrical Commissioning & Maintenance (Senior / Lead / Engineer) in oil & gas, petrochemicals & power plants dealing with both Field & Control systems on:

- Pipelines and on packages (Boilers, towers & distillation columns, reactors, Thermal supercritical & CCGT power plants, industrial automation CAP).
- Performing full calibration methods, function & loop tests, professional troubleshooting root cause analysis, system termination & Commissioning for motors/ Drives and MCC.
- Mechanical rotating equipment packages: (Compressors (specialist in Cameron & Ingersoll Rand controls, Atlas Copco, compair), pumps, fans, Steam & gas turbines SIEMENS, GE Nuovo Pignone MS5002D Mark VI).
- Dealing with profibus & modbus ethernet protocols.
- Hands-on experience on vibration installations and system testing GE (Bentley Nevada) dealing with 3500 monitoring system on compressors, FD Fans, GR Fans, gas & steam turbines.
- Fire & Gas (Simplex SAFCO) Alarm implementation and commissioning with cause & effect Actual tests.
- PLC (Siemens S7 200, 300 & 400 Simatic & Tia-porta, Allen Bradley & many others controllers) troubleshoot, monitor and programming skills (small projects and modifications if needed or permits).
- Hands-on experience in HART communicator 375, 275, DPI-610, 615,
 GE geni advanced druck mainly in vibration monitoring systems.
- Wide area of on/off & control valves applications experience (dealing with the different types positioner: pneumatic, electro-pneumatic & smart (DVC fisher, smart Fisher DVC, Sipart Siemens, Masoneilan, etc. all types off actuators pneumatic, MOV (on/off & multi-turn Auma analogue, Rotork, Bernard, others), hydraulic.
- Dealing with Process Control, Sama control logic, PID algorithms.
- Analytical (gas & liquid analyzers & detectors) measurement applications.
- Engineering skills & experience in design & modifications solutions (onsite and logic control) performing as-built.