## **101191-ICX-CMOS-E-2002** I&C Enginer / DCS Engineer

Holds a B. Sc. in Electronics & Communication Engineering and Pre-Master in Industrial Control Network. Has over 10 years extensive experience (5 years overseas) gained primarily in power generation: Gas Turbine (GT), Steam turbine (ST), Back Pressure steam Turbine (BPST), Heat Recovery Steam Generator (HRSG), Water Treatment, Blending plant and Desalination (MSF). Experience gained in all project phases from initial engineering / design group supervision, instrument specification / purchase, production of all I&C related documentation/drawings, participation in factory & site acceptance tests through construction, commissioning, start-up and maintenance. Expert in DCS, SCADA, PLC, modern control systems (FieldBus, ModBus, etc.), Standards and Protocols in DCS, PLC, ESD, Codes & Standards and field instruments.

# PERSONAL DATA

:	Egyptian
:	18/03/1980
:	Male
:	Married
:	Currently Dubai, UAE
	: : : :

#### EDUCATION

- : B. Sc. in Electronics & Communication Engineering, Alexandria University, 2002
- : Pre-Master in Industrial Control Network, Alexandria University, 2006

### LANGUAGES

Arabic	:	Native Language
English	:	Very Good

### **COMPUTER SKILLS**

- : Windows, MS Office, Internet
- : MS Project
- : MATLAB 7.3
- : ORION, MAXIMO and SAP

### TRAINING COURSES AND CERTIFICATIONS

- : El-Tebbin Corporation for Energy and Environment Research Centre to be subordinate to industry ministry.
- : Microcontroller base systems design in H-Logic Company.
- : HONEYWELL DCS system from Abu Qir Power Station Training Centre.

- : PLC (S7-300) from Abu Qir Power Station Training Centre.
- : PLC (S7-400) from Abu Qir Power Station Training Centre.
- : Instruments and Calibration from Abu Qir Power Station Training Centre.
- : VHDL language and mentor graphic tools from Mentor graphic training course in Alexandria University.
- : Hazard area classification standard from TUV Company.
- : MS Project in Dubai Electricity and Water Authority (DEWA-FASIAL) Training Center.
- : Management Knowledge by Training Centre in Dubai Electricity and Water Authority.
- : Risk assessment in Dubai Electricity and Water Authority (DEWA-FASIAL) Training Center.
- : HAZOP of Engineering Flow Diagrams and P&IDs related to the boiler, turbine and desalination as case study in Dubai Electricity and Water Authority (DEWA-FASIAL) Training Center.
- : Feasibility studies and conceptual design, FEED and detailed design projects relating to water and power pipelines, pump stations, tank farms and related facilities.
- : PLC S7300/400 from SIEMENS branch Training Centre in Dubai Electricity and Water Authority (DEWA-FASIAL) by SIEMENS.
- : DCS SIEMENS TXP in engineering, maintenance and introduction for administration from SIEMENS branch training centre in Dubai Electricity and Water Authority (DEWA-FASIAL) by SIEMENS.
- SIMADYN and 95F control and protection systems for GT and BPST from Germany in FURTH SIEMENS Training Centre by SIEMENS.
- : SIEMENS T3000, Engineering, commissioning, maintenance, operation and administration training course in SIEMENS branch Training Centre in Dubai Electricity and Water Authority (DEWA-FASIAL) by SIEMENS.
- : ALSTOM BPST- ALSPA Series 6 DCS in training centre in Dubai Electricity and Water Authority (DEWA-FASIAL).
- : ABB SYMPHONY+ and COMPOSER 6.1 installation, commissioning and maintenance, ABB Germany.
- : TOSMAP-DS for TOSHIBA DCS training centre in Dubai Electricity and Water Authority (DEWA-FASIAL).
- : GE MARK VI GT training centre in Dubai Electricity and Water Authority (DEWA-FASIAL).
- : CENTUM CS 3000 YOKOHAWA DCS control system engineering and maintenance training course in SIDI KRIR Training Center (process control system, system overview, HIS start-up, engineering environment, FCS configuration, process input/output, control drawing builder, regulatory control function block, sequence control function, defining HIS function, trend definition and Graphic builder).
- : Allen Bradley PLC system and RS-View software applications training centre in Dubai Electricity and Water Authority (DEWA-FASIAL).
- : GE FANUC PLC systems 90-30 series and LM90 software.
- : NUOVO PIGNONE compressor SRL251 maintenance training course.
- : Anti-Surge training course in Dubai Electricity and Water Authority (DEWA-FASIAL) Training Center.
- : Honeywell solution for wireless data acquisition and monitoring, Honeywell OneWireless system and network design and mobile station.

- : EMERSON-OVATION DCS system, OVATION NT typical system configuration, networking, DESCRIBE all Controller PC and I/O cards, RECOGNIZE the Error reporting codes used for System maintenance and troubleshooting.
- : GE MARK VI in house training in Dubai Electricity and Water Authority (DEWA).
- : SIEMENS GT V94.3A protection in house training in Dubai Electricity and Water Authority (DEWA).
- : ANSALDO gas compressor surge protection and abnormal condition for natural gas Pressure Reduction Station NGPRS by SAS Group, Italy.
- : SCADA SIEMENS CS7, SIMATIC WinCCand SICAM PASfor 500KV project in Egypt, SIDI KRIR Power Plant.

### CHRONOLOGICAL EXPERIENCE RECORD

Dates

Employer

Job Description

: From Oct. 2008 till now

: Dubai Electricity and Water Authority (DEWA)

Job title : I&C Engineer

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- Commissioning, Installation for the new HMI Conductor NT Upgrade to Symphony Plus Engineering, and EWS from composer3.2 to composer 6.1... in D, E and G Station.
- In E station up gradation for DCS control system from teleperm C to T3000...
- In G-station Gas Turbine V94.2 DCS up gradation from Teleperm M to T3000 is under processing...
- Provide risk assessment, TBT, SAP activities: MRQ, MRR, PR, Asset PR, Inspection, comparison, etc.
- Dubai Electricity and Water Authority (DEWA) Phase 1 D, E and G Stations:
  - SIEMENS V94.2 Gas Turbine (3x160 MW) and NEMWHRB (3x320 T/H and 103 Bar) and eight MSF desalination plants.
  - The control DCS system is ABB Symphony Harmony, Allen Bradley PLC for OLTC system with PFB profibus scanner in desalination and GE fanuc 90-30 PLC for diverter damper in D-station.
  - VM600 is the gas turbine vibration system; BFI is the flame protection system for GT, DURAG for the WHRB and the Woodwardis the speed control and protection system.
  - Natural Gas Pressure reduction Station-NGPRS to control the NG pressure for the GT 26 Bar, ESD valves, monitoring valves, tariff metering, OMNI gas chromo-graph, RTU with HARRIS to the SCADA system in D-station.
  - SIEMENS V94.2 Gas Turbine (5x160MW) the control DCS system is TELEPERM M (up gradation to T3000 is under processing), NEM HRSG (5x460 T/H) and ALSTOM Boiler (2x350 T/H). The Control DCS system is ABB Symphony Harmony in G-station.
  - RO plant 23 million gallons/day, the control system is Allen Bradley SLC5000, network with HMI supervised by factory talk.
  - Four MSF desalination plant and the Control DCS system is T3000, the OLTC system controlled by Allen Bradley PLC SLC 500 in Estation.
  - Data Acquisition System: Developing new data acquisition system and alarm system for 5 units using Yokogawa MW100, MX100 &

DX2000 paperless recorders, engineering study, preparing drawings & Network configuration, complete modules configuration using MW100 viewer software (Viewer, Address setting software, Calibrator), complete configuration using GATE MX/MW, MX100 STANDARD, DAQSTATION & DAQLOGGER, using DAQWORX (ADD OBSERVER software) for mimics buildings, complete configuration between modules using Modbus communication technique.

- Dubai Electricity and Water Authority (DEWA) Phase 2 K Station:
  - SIEMENS Gas turbine V94.3A (3x234MW), SIMADYN is the GT protection system, 95F is the GT fail safe system, ALSTOM HRSG (3x427 T/H), SIEMENS BPST (2x220MW) and DESALINATION units (5x18 million gallons/day). The DCS system is T2000-TXP, Diverter damper controlled by SIEMENS Step7-400, OLTC controlled by Allen Bradley PLC SLC500 with PFB profibus scanner, sea water plant controlled by and the chlorination plant controlled by SIEMENS PLC Step7-400.
  - Natural Gas Pressure reduction Station-NGPRS to control the NG pressure for the GT 26 Bar, ESD valves, monitoring valves, tariff metering, OMNI gas chromo-graph, RTU with SIEMENS ST7-400 to the SCADA system.
  - ALSTOM Steam Turbine: PT320 TGC with ALSPA Series 6 as DCS.
  - Gas compressor in NGPRS is controlled and supervised by GE fanuc PLC 90-30 and Bentley Nevada 3500 is the compressor vibration protection system.
  - VM600 is the gas turbine and BPST vibration system, BFI is the flame protection system and the Braun is the speed control and protection system.

Dates	:	From Oct. 2004 till Oct. 2008
Employer	:	WDEPC
Project	:	Sidi Krir Power Plant
Job title	:	DCS Engineer
Job Description	:	• Maintain inventory of spares for the year, and initiate procurement order to ensure their availability during overhauls and emerger

- order to ensure their availability during overhauls and emergency maintenance and thereby ensuring the quality and timely completion of work...
   Maintenance Engineer for Bailey INEL -90 DCS for boilers desalination
- Maintenance Engineer for Bailey INFI -90 DCS for boilers, desalination and auxiliaries.
- Repairing the DCS bailey INFI-90 power supply modules in SIDI KRIR power station lab.
- Upgrading the Sequence of event by installing new PC and using serial32 software for complete event display.
- Installation for new consol for desalination plant, joining with the network, installation the QNX as the operating system, and installation the application.
- Studying the contract for the desalination DCS control system upgrading, biding, making comments & remarks, and follow up the upgrading.
- Maintenance Engineer for steam turbine TXP SIEMENS DCS.
- Maintenance and troubleshooting for S5 and S7-300 PLC by using SIMATIC software.

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	<ul> <li>Maintenance and troubleshooting for SLC-500 Allen Bradley PLC by using RSlogix500 and RSlinx for soot blower.</li> <li>PCS 7 SCADA system commissioning for 500KV.</li> <li>Carry out the installation, commissioning, trouble shooting, PM, CM, repair, calibration and modification activities for wide range of instruments, PLC and DCS system.</li> <li>Testing and commissioning Cairo-Alexandria Transmission System project 500KV GIS Substation with GB Type 8QD1 (Siemens), ZTR 220/500KV Transformer (Siemens), RTU, and the substation power automation system (SICAM PAS).</li> <li>Distributed control system (DCS) YOKOGAWA (CENTUM CS 3000) as the main controller for two HRSGs as the remote controller for two gas turbines MHI (2x250MW) and steam turbine (ANSALDO) (250MW) for the 750MW combined cycle.</li> <li>Communicate with equipment vendors and technical consultants to resolve complex issues concerning new Standards and purchase specification.</li> </ul>
Dates	: From Oct. 2003 till Oct. 2004
Employer	: The International Group for Modern Coating
Job title	: Automation Control Engineer
Job Description	<ul> <li>Maintenance Engineer for mixing paints machines, fill materials paints cans machines, labeling machines, plastic machines and manufacture of cans.</li> <li>Maintenance Engineer for pneumatic, hydraulic and electrical control circuits.</li> <li>Designing and manufacturing the filling machines and the pneumatic control circuit.</li> <li>Designing automatic control circuits for filling machines and plastic machines.</li> <li>Designing and installation for the fire fighting emergency diesel systems.</li> <li>Designing and installation for the cooling tower control system.</li> <li>Planning of daily maintenance works.</li> <li>Coordinating and cooperation with other maintenance section for the planning.</li> <li>Troubleshooting and maintenance for HMI units for mixing the liquids to produce the desired paints.</li> <li>Preparing daily work and activities sheets.</li> <li>Upgrading the automatic control systems for old plastic machines to PLC systems by using compact LOGO SIEMENS PLC.</li> <li>Upgrading and new design for the automatic control circuits by normal and standard automatic control elements such as contactors, relays, on/off timers, lamp indicators and different types of switches for power and control circuits.</li> </ul>
Dates	: From Sep. 2002 till Oct. 2003
Employer	: Egyptian Copper Works
Job title	: Automation Control Engineer
Job Description	: • Troubleshooting and maintenance for the lines of aluminum smelting furnaces controlled by Honeywell HMI control units.

- Troubleshooting and maintenance for the rolling mill machines by standard automatic control and PID control.
- Troubleshooting and maintenance for the cutting machines by standard automatic control.
- Troubleshooting and maintenance for the cutting machines by standard automatic molding machines for the manufacture of cooking utensils.
- Troubleshooting and maintenance for machinery and equipment for spinning and controversial ropes.

# **Field of experience :** • 10 years of diversified experience in Commissioning, Project Management, O&M and Reliability.

- Involved with Control Systems & Instrumentation in all phases and different process. This includes working on Process Control (DCS), Integrated Control Systems (PLC and SCADA), Critical Safety Systems (F&G and ESD), Modern technology and networking standards & Protocols (Fiber optics, Field-Bus Mod-Bus, etc.) and Instrumentation.
- Extensive experience gained primarily in power generation: Gas Turbine (GT), Steam turbine (ST), Back Pressure steam Turbine (BPST), Heat Recovery Steam Generator (HRSG), Water Treatment, Blending plant, and Desalination (MSF)& RO, Natural Gas Pressure reduction Station (NGPRS) and Fuel Oil tanks and Pipe lines.
- Knowledge about:
  - HAZŎP.
  - Hazard area classification.
  - NFPA 72/85/86.
  - SIS: IEC 61511/IEC61508, ISA S84.01standards, SIL levels and calculation, ESD and F&G.
  - Analysis of the causes of the unit's trip, and Fault tree analysis.

#### Software / System skills:

- PLC (Allen Bradley: software RSLOGIX 500/5000- RSLINX- SST configuration tools- BUILDER 32, SIEMENS S7-300/400 with SIMATIC manager- WinCC flexibility and GE-FANUC 90-30/70 with LM90, Versapro and Proficy Logic Developer software).
- DCS (SIEMENS TXP (SPPA T2000), and SPPA T3000, ABB Bailey INFI90, and Symphony Harmony (Conductor NT, PGP, and S+ as HMI, and composer 3.2, 5.1, and 6.1 as EWS), GE MARK VI and Vie, ALSTOM Steam Turbine- ALSPA Series 6 DCS and YOKOGAWA CS3000).
- SCADA (SIEMENS SINAUT TELECONTROL: CS7, WinCC, S7 300/400H-FS, RTU, OPC and GE HARRIS).
- Vibration system as VIBROMETER VM600, and Bentley Nevada 3300/3500.
- Flam scanner system as BFI, and DURAG.
- Speed system as Woodward, and Braun.
- Fire fighting control system KIDDE and MINIMAX.

#### Key Qualifications:

- Lead small teams of technicians, foremen and engineers.
- Establish and maintain timely completion of Instrument activities as per project plan and schedule.

- Execute, Supervise and Manage the Instrument construction, SAT, commissioning, FAT, O&M, modification and de-commissioning activities with all quality and safety requirements as per procedure at the site on a day-to-day basis.
- Review of all the engineering drawings (PID, Loop Drawing, Logic diagram, schedule, layouts.....etc) and identify any Modification as required as site condition, Discuss and solve any technical Query and Final Review of marked-up, as-built drawing and handover to the client.
- Provide recommendation for all malfunctions in the process and provide the implementation required (Instruments installation, new logic & graphic drawing, new alarm management, new up gradation ....etc.).
- Implement whatever required for the plant reliability and availability by Schedule and control the daily, routine, PM, CM, overhauls, emergency maintenance and planned shutdown in order to efficiently and safely complete all the activities well within the desired time.
- Maintain inventory of spares for the year, and initiate procurement in order to ensure their availability during overhauls and emergency maintenance and thereby ensuring the quality and timely completion of work.
- Training for the staff through demonstration, conduct orientation program for the newly recruited employees, communicate the organization's objective and targets, safety and quality procedures through tool box talks to the subordinates and motivate them, in order to realize the organization's vision.
- Provide Risk assessment and TBT.