# **101336-ICX-4D-E-2007** Sr. SmartPlant Instrumentation (SPI) Engineer

Holds a B. Sc. in Electrical Power Engineering and has over 12 years experience and specialized knowledge of HEXAGON/INTERGRAPH SmartPlant Enterprise Software along with SCADA Systems (INTOUCH).

# PERSONAL DATA

Nationality	:	Egyptian
Gender	:	Male
Residence	:	New Cairo

## EDUCATION

: B. Sc. in Electrical Power Engineering, Ain Shams University, 2007

## LANGUAGES

Arabic	:	Native Language
English	:	Very Good
German	:	Basics

## **COMPUTER SKILLS**

- : Windows, MS Office, Internet
- : SCADA: using INTOUCH wonderware/AVEVA software
- : SmartPlant Instrumentation: DBA / Domain Controller/ Super User
- : SmartPlant P&ID: DBA / Super User
- : Smart Sketch
- : Oracle Database: Database Administration
- : MS-SQL Database: Database Administration
- : SmartPlant Electrical
- : SmartPlant Foundation
- : C/C++ Programming
- : Microstation
- AutoCAD

# TRAINING COURSES AND CERTIFICATIONS

- : SCADA system utilizing INTOUCH (Schneider / AVEVA / Wonderware) (Dec. 2020).
- : Functional Safety in Process Industry (KROHNE Online Academy) (Dec. 2017).

- : Radar level measurement (KROHNE Online Academy) (Jan. 2018).
- : Business Management (American University in Cairo) (Oct. 2014).
- : Project Management Professional "Workshop" (Egyptian Engineers Association) (Oct. 2012).
- : SmartPlant P&ID Course (INTERGRAPH KSA) (Apr. 2013).
- : ORACLE Developer (CAPMAS ITTC Cairo) (Jul. Nov. 2008).
- : United Engineers Co. (UE) (Nov. 2007 Feb. 2008):
  - Training on Job as a Technical Support, for Control & Automation System Integration (using SIEMENS STEP-7 PLC & WINCC SCADA systems).
  - Hand on Preparing for Tenders, FEED for industrial production lines, Technical Offers & Financial Offers.

#### CHRONOLOGICAL EXPERIENCE RECORD

2

2

Dates

Employer

Projects

: From Apr. 2015 till 2020

SNC-Lavalin Fayez Engineering (SLFE), KSA

- Apr. 2020 RELOCATE JAZAN-ABHA REFINED PRODUCTS PIPELINE FOR IN-PLANT FACILITY: Detail Design and Engineering Services for RELOCATE JAZAN-ABHA REFINED PRODUCTS.
- Dec. 2019 INSTALL NEW SLOP FLOW METERS IN TF & WTP -PRD: Detailed Design & Engineering Service - Jazan Abha Products Project -InPlant Facilities. The project objective is to sufficiently meet the Kingdom's product demands of Ultra Low Sulfur Diesel (ULSD), Premium Gasoline 91 (PG-91), Premium Gasoline 95 (PG-95) and Kerosene in Jazan, Abha and Najran regions. Working with Hosted SPI Database by INTELLIDATA through HITACHI Co. as the main contractor in this project.
- Oct. 2019 Replace UA spheroid Turbines-ABQ PLT: Detailed Design & Engineering Service to Replace UA spheroid Turbine ABQIQ PLT to improve plant reliability by replacement of twelve Steam Turbines and eight motors at UA spheroid area.
- Apr. 2019 Abqaq Water Injection Project: Detailed Design & Engineering Service for Abqaiq water injection facility is part of Saudi Aramco's program to maintain oil production levels at the Abqaiq field. This project is to improve plant reliability by replacement existing twelve (12) steam turbines and (8) eight motors at UA Spheroid area (Plant-106).
- Jan. 2018 UBTG/ HUG-2 PIPELINES SYSTEM: Detailed Design & Engineering Service for Pipe Line Project links Hawiyah Gas Plant with Uthamanyiah Gas Plant for 160KM. Haradh Increment project will add 760 MMSCFD of sales gas to the existing UBTG Pipelines System. This project will provide control valves for throttling the gas flow during the scraping operation on each lateral line of UBTG-1, UBTG-2, UBTG-3 and UBTG-4 pipelines at UGP scraper area.
- Jan. 2018 Arabian Heavy Delivery to Yanbu East-West Pipeline JPS1-1 PL - Pipeline Project: Detailed Design & Engineering Service for EAST WEST Pipe Line Project links Ju'amah with Yanbu for more than 100KM. The purpose of the facilities is to transport 680 MBCD (732 MBOD) of Arabian Heavy (AH) Crude to Yanbu' from Ju'aymah Terminal through

		existing and new pipelines, and store the AH in the allocated existing storage AH tanks at Yanbu' Crude Oil Terminal (YCOT) for supplying AH to YASREF, Jizan and Jeddah refineries as feedstock to fulfill Saudi
		<ul> <li>Aramco contractual commitment.</li> <li>Jan. 2018 - REPLACE STORAGE TANKS AT RTR Plant: 5 Tanks Replacement Project in Ras Tanura Plant, including demolition for existing Tanks and replacing with New Tanks with New Level Control system using (GWR/RTG).</li> <li>From Jun. till Dec. 2016 - MPP: I've implemented SPI database for standardized Typical 17 Wells' Design (Oil / Gas / Water injection Wells) for MPP (Maintain Potential Projects) to be converted from Microstation format into SPI database.</li> <li>From Apr. 2015 till Jul. 2019 - GGM: Detail Engineering and Material Procurement Support for Gas Gathering Manifold Enhancement Project</li> </ul>
		(ONSHORE MAINTAIN POTENTIAL, GAS UPSTREAM pipeline PROJECT (>1100 KM Length)).
Job title		<ul> <li>From Oct. 2015 till Mar. 2016 - SHY-1 L4 &amp; L5: Detailed Engineering Design for Complete SHEDGUM YANBU Gas Pipeline for loops 4 &amp; 5 (CROSS COUNTRY PIPELINE &amp; COMMUNICATION PROJECTS).</li> <li>Sr. SmartPlant Instrumentation (SPI) Engineer</li> </ul>
Job Inte	:	Working at SPI domain controller level, Implementing SPI Environment
JOD Description	-	<ul> <li>Working at SP1 domain controller level, implementing SP1 Environment for new projects supporting Instrumentation &amp; Control Dept. to prepare all Detail Design Deliverables for Saudi Aramco GES+ projects.</li> <li>Coordinate with IT department to Create Oracle/SPI database.</li> <li>Setup &amp; implementation of Oracle Database server /client.</li> <li>Initialize/restore SPI database as per client/projects requirements.</li> <li>Create naming conversion as per the client's Standards.</li> <li>Prepare Groups, Users, Departments and grantee privileges for users.</li> <li>Prepare SPI Reference Data and customize of symbols, Templates &amp; layouts.</li> <li>Backup SPI Database during the production (weekly basis, 60%, 90%, IFC).</li> <li>Perform Quality Check for Design implementation within the SPI database life cycle.</li> <li>Perform Auditing &amp; Correction (if required) for SPI existing (Brown field) projects to ensure projects integrity and proper system operation along the project life cycle.</li> <li>Provide specific training for new project's members (Designers and Engineers).</li> <li>Create typical loops, instruments, cables, device panels, junction boxes, marshaling cabinets, control systems, hookups as per the engineering design details to generate the required Engineering reports.</li> <li>Customizing required templates &amp; Layouts for Saudi ARAMCO Projects based on Saudi ARAMCO Standards &amp; Procedures as a reference to execute the project's generates requested reports such as:         <ul> <li>Instrument Index.</li> <li>IIS "Instrument Installation Schedule".</li> </ul> </li> </ul>
		<ul> <li>ECD "Electrical Connection Diagram".</li> <li>CCS "Cable &amp; Conduit Schedule".</li> </ul>

		<ul> <li>ILD "Instrument Loop drawings".</li> </ul>
		- Hock-ups.
		<ul> <li>ISD "Instrument Segment Diagrams".</li> </ul>
Dates	:	From Oct. 2009 till Feb. 2015
Employer	:	Atheeb INTERGRAPH Saudi Co. (AISC), KSA
		AISC is an Exclusive Representative for INTERGRAPH in KSA. Supporting customers as Saudi ARAMCO, SABIC & MAADEN, Worley Parsons, L&T Aetc.
Projects	:	<ul> <li>2014 - YASERF "Yanbu Aramco Sinopec Refining Company": Develop detailed Auditing and Quality Check Reports for SPI and SP_P&amp;ID databases.</li> </ul>
		<ul> <li>2014 - NATPET "National Petrochemical Industrial Co.": Project Coordinator for Conversion from PDF/Microstation Native file into SPI and SP_P&amp;ID database.</li> <li>2013-2014 - MAADEN:</li> </ul>
		<ul> <li>2013-2014 – MAADEN:</li> <li>Implementation &amp; database set up of Intergraph SmartPlant 2D applications.</li> </ul>
		<ul> <li>Upgrade old SPI and SP_P&amp;ID database to latest version of SPI, SP P&amp;ID database.</li> </ul>
		<ul> <li>Develop detailed Auditing and Quality Check Reports for SPI and SP P&amp;ID database.</li> </ul>
		<ul> <li>Correcting the SPI and SP_P&amp;ID databases in order to perform system integration between SmartPlant 2D applications and Smart 3D application through SmartPlant Foundation database (perform Data Mapping &amp; Publishing from SP_2D applications to SPF).</li> </ul>
		<ul> <li>2010-2014 - KAYAN "Saudi Kayan Petrochemical Company's:</li> <li>Setup/customize SPI and SP_P&amp;ID projects as per project requirements including customization of symbols, customization, procedure writing and co-ordination.</li> </ul>
		<ul> <li>Upgrade old SPI and SP_P&amp;ID databases to latest version.</li> <li>Auditing and Correction (QA/QC) for SP_P&amp;ID plant's database.</li> <li>Correcting the SPI and SP_P&amp;ID databases in order to perform system integration between SmartPlant 2D applications and Smart 3D application through SmartPlant Foundation system (perform</li> </ul>
		<ul> <li>Data Mapping &amp; Publishing from SP_2D applications to SPF).</li> <li>Feb. 2012 – Dec. 2012 - APPC "Advanced Petrochemical Company":</li> <li>Upgrade old SPI database to latest version. Auditing and correction for delivered SPI.</li> </ul>
		- Generate project specific reports from INtools database, some key reports include: signal tracing, wiring continuity checking, instruments IO and wiring discrepancy check, validation reportsetc.
		• Oct. 2009 – Aug. 2010 - SATORP "Saudi Aramco Total Refining and Petrochemical":
		<ul> <li>SmartPlant Instrumentation Database Administrator.</li> <li>Setting up the system/ scheduled Backup of the Project database.</li> <li>Provide SPI administrative tasks and user supports through Citrix server.</li> </ul>
		<ul> <li>Involved in trouble shooting in instrument index, wiring, specification, process, calculation and hookup modules for critical issues.</li> </ul>

	<ul> <li>Created enhanced report templates for Enhanced SmartLoop, Panel-Strip and Segment Wiring using Enhanced smart Reports' Utility.</li> <li>Training others in the use of the system.</li> </ul>
Job title	: APPLICATIONS ENGINEER
Job Description	<ul> <li>APPLICATIONS ENGINEER</li> <li>My role to provide the technical support / system coordination for (PPM) Process Power &amp; Marine products of Intergraph SmartPlant Enterprise using (SPI) SmartPlant Instrumentation "INTOOLS" (SPEL) SmartPlant Electrical and (SPP&amp;ID) SmartPlant P&amp;ID and Smart3D.</li> <li>Manage various projects (implementation, support, training, database maintenance and projects' handover of SPI, SP_P&amp;ID, SPEL and Smart 3D applications database).</li> <li>Activities involve meeting with customers to collect requirements and perform database analysis to come up with solutions for improper database entries before integration of SmartPlant 2D with Smart 3D through (SPF) Smartplant Foundation Database.</li> <li>Hands-on working experience on implementing projects, such as SmartPlant Enterprise integration, Handover for engineering with owner operator companies' activities include installation, configuration and customization.</li> <li>Applications implementation for engineering company to expand the capabilities of using SmartPlant 2D, 3D applications.</li> <li>Identify the various software versions (and service packs) that will be used for the production &amp; development (Oracle, SPEM, SPPID, SPI, SPEL, SP3D etc.).</li> <li>Training Sessions with AISC (Training Sessions delivered to Clients):         <ul> <li>SP_P&amp;ID:</li> <li>"Creating P&amp;ID with SmartPlant P&amp;ID".</li> <li>"SmartPlant P&amp;ID Setup &amp; Customization Course".</li> <li>SPI (INTOOLS):</li> <li>"SmartPlant Instrumentation for Users".</li> <li>"SmartPlant Instrumentation Administration Course".</li> </ul> </li> </ul>
Dates	: From 2008 till 2009
Employer	: GT-Egypt "INTERGRAPH"
	GT-Egypt is Subsidiary of EK Holding which is an Exclusive Representative for INTERGRRAPH in Egypt.
Job title	: APPLICATIONS ENGINEER
Job Description	<ul> <li>Supporting customers like (ENPPI, Egyptian LNG, Worley Parsons - Egypt, Petrojet).</li> </ul>
	<ul> <li>Working as a technical support for Process Power &amp; Marine products of Intergraph SmartPlant Enterprise Using SmartPlant® Instrumentation powered by INTOOLS.</li> <li>Acting as a point of contact for dealing with the customer's IT department and Intergraph.</li> <li>Helping the Customers to Setting up SPI database and Day to day running of the system.</li> <li>Training the customer's Engineers &amp; Designers in the use of SPI.</li> <li>Help the Customer's creating project specific setup (plant, area, unit, tagging system, index module, instrument type, loop type, cable type, panels, junction boxes, marshalling cabinets, control systems, hookups,</li> </ul>

material takeoff, data (specification) sheets for tagged items).

- Managing administration tasks (backup data, creating users & departments, grantee privileges for users, generate reports, solve problems).
- I have experience in using the SPI different modules to complete the required design as follow:
  - Using the Instrument Index Module to build the instrument index.
  - Using the pre-loaded browsers and creating customized browsers.
  - Updating the process data and exporting data for calculation tools.
  - Entering the Specification data into datasheet using SPI Forms or importing utility.
  - Coupling of datasheets to corresponding specification binders.
  - Creation of default panels, junction boxes, cables and other wiring items.
  - Generate cable & conduit schedule report, Interconnection Diagram & Enhanced Loop Drawing Diagrams.
  - Assignment of instruments to hook-ups, extracting MTO using item listings.
  - Using loop module to extract the wiring and index information in different formats (Enhanced Smartloop, AutoCAD or Microstation).