CURRICULUM VITAE

JAWAHAR SINGH CEng.

Smart Plant Administrator

Application Engineer I System Analyst

Contact Info

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Experience Forte

≈6Years of Experience with wide range of exposure to Oil & Gas sector in Engineering Services using CAE **3D**, **4D**, **5D Tools** etc.

Objective

To serve a quality growth-oriented Oil & Gas, Petrochemical, Energy, Design / Construction EPC Company with a CAE Administration I Digital Integration I Design I Development I Automation I Customization challenging position to render professional Skills for the successful operation and growth of that company and self.

Software's & Technology Key Skills

Proficient or familiar with a vast array of CAD 3D & IT Software's.

Smart 3D / Marine 3D	Smart Plant Foundation - SPF	SPR / SPP&ID /SPC /SPGen /SPI
(S3D 2009-2016 / SM3D)	Smart Plant Owner SPO/SDV/SDA	Smart Plant Isometric / Isogen
(INTERGRAPH "HxGn")	(INTERGRAPH "HxGn")	(INTERGRAPH "HxGn")
PDMS / E3D / Navis Manage Navis Work Freedom (AVEVA / Autodesk)	SQL Server / Oracle / ETL / Data Warehouse (Microsoft / Oracle / SAP)	OptiPlant / Pipe-Router PDMS & Auto-Pipe Router S3D / PSO (ASD Global Inc "OptiPlant Inc".)
VB.Net / C# / Python / SQL /XML	OSISoft PI System AF / SAP PM	Window Server / Window / Linux
UML / PML / HTML etc.	Real Time Data Management	Citrix/VMware/Cloud Computing
(Microsoft / Aveva etc.)	(OSISoft / SAP Inc)	(Microsoft VMware Inc /Citrix)
Artificial Intelligence / Machine Learning / Data Science	3D Symbol Designer/ SpecXpert (CAXpert)	OrthoGen / Solid Edge / LFM (3DS / Siemens / AVEVA.)

Modules: TSMP1001, TSMP1002, TSMP1003, TSMP1005, TSMP1100, TSKT1550, TSMP1006, TSMP2001 TSMP2002, TSMP2005, TSMP3001, TSMP3002, TSMP3005, TSMP3008, TSMP4001, TSMP4002.

Technical Summary

- ❖ Work with Engineering, Project Management, Information Management and Operations personnel to develop long-term strategies for the implementation of the SmartPlant and CAE tools through the full life cycle of capital project to ensure efficiencies in project implementation and the handover to operation.
- ❖ Develop plans for system implementations, Eng data transfer, Interfaces, Catalog Replication, Digitalization 4.0 Real time data management, Cloud Environment, 4D/5D tools for CP & Simulation and implement them.
- Currently implementing to Digital Technology in Energy Sector using Artificial Intelligence, Machine Learning Big data and analytics aimed towards automating processes, reducing repetitive manual tasks which are also error prone and reduced R&D cost and improve efficiency. S3D Auto-Router implementation for pipes routing.
- Setup, Configuration & Customization of Intergraph Suit SPE S3D SPF SPPID etc, Aveva Tool's PDMS, E3D and ASD OptiPlant & other CAE Tools and Engineering applications / utilities to suit Project Requirements.
- ❖ S3D Administration: Project Setup, Project Management, Managing Plants, Backup, Restoration Database Maintenance, Configuration of Interference Server Setup, Customization Reference data, Spec and Drawings Users Creation, Access Control & Approval Status, Catalog administrator & Provide Training to New users.
- ❖ Installation & Configuration RDBMS such as MSSQL, Oracle database & Data Warehouse, DB creation and Replication, Extract report using SQL queries and queries builder, Business Intelligence SSIS, SSAS, SSRS.
- ❖ Knowledge of S3D Metadata browser, Smart Plant Architecture, Smart plant Schema and data flow amongst the Smart Plant tools, Piping Naming Rule, Writing SQL Query, SQL Database reports etc.
- Creating & Customization of Piping Specifications, Isometrics Drawings and Orthographic Drawing templates.
- Creating parametric Symbols dll library using 3D Symbol Designer CAXpert and C# .Net & Solid edge etc.
- SPF Administration: SPF Setup, Configuration, integration with other tools such as S3D, SPPID, SPEL, SPI.
- Knowledge of Schema editor, Creation of new Classes, interface and etc, Mapping of properties, Backup and restoration, Publishing and retrieving of data, Workflow IIS, database warehouse and SPO / SDV / SDx etc.
- * Knowledge of Document management, Concurrent engineering, Cloud Deployment and Basic customization.
- Knowledge of programming languages such as Python, C#, VB.Net, SQL, XML, UML, Html and Basic PML.
- ❖ PDMS Administration: Project Setup, database, Spec Creation & loading, Catalog managing, Isometric and GA drawing customization, report configuration and data exchange with other CAD tools.

Experience Summary				
4. Company Name: ASD Global D% Shell Global	Dept.: Egg. (S3D/SPF/SPPID/SPI/ PDMS/OptiPlant)			
Duration (From): Jun 2017	To : Till Now			

Project : Shell Project Vantage.

Project : QMSR.

- Worked on Shell Project Vantage, Catalog replication, 3D Eng. data Conversion, Digitalization and Interfaces.
- Setup, Configuration and deployment of Intergraph and Aveva Tool's like SPLM, SPF, SP3D, SPP& ID, SPEL SPR, SPI, SPRD, SPC, SP Spoolgen, SP Isometric, Smart Plant Layout, SP interop, Batch service and PDMS E3D, and ASD OptiPlant PSO and PR-PDMS & other CAE Tools.
- Knowledge of S3D Metadata browser, Smart Plant Architecture & Smart plant Schema and data flow Amongst the Smart Plant Tools Implementation & development.
- S3D Administration Task activities Project Setup, Project Management, Managing Plants, Backup, Restoration Database Maintenance, Configuration of Interference Server Setup, Customization Reference data & Drawing Users Creation, Access Control and Approval Status, SP3D Updates and Maintenance, Plant Model Migration From PDMS, S3D and OptiPlant and Automation and utility development etc.
- SPF Administration: Setup, Configuration, Integration, Schema Editor, integration with other 3D/2D tools such as S3D, SPEL, SPI, SPPID, SPR, implementing attribution & mapping and added properties, creation of Class and interface, Publishing and retrieving of data from authoring tool to SPF, SPF server configuration, SPF Site creation, Model Security, Document management, managing workflow and Cloud deployment etc
- Installation & Configuration RDBMS such as MSSQL, Oracle database and Data Warehouse, DB creation and extract report using SQL queries and queries builder, Business Intelligence "SSIS, SSAS, SSRS".
- Developed and Customization of Smart Plant Reference Data as per project requirements e.g. Piping Specs & Equipment's, Catalog, Code list, Plant rules. Writing simple and complex SQL Query SSIS, SSAS, SSRS etc.
- Creating parametric Symbols dll library using 3D Symbol Designer CAXpert, C#, VB.Net & Solid edge etc.
- Configuration and Customization Isometric, Orthographic Drawings and Report templates as per project/Client
- Create Volumes, Filters, Surface style, Drawing Template, Labels, Display set in SPR & Setup Fabrication Iso and Stress Iso & WBS Iso Package and support drawings package; Model data reuse (MDR / MDT).
- ❖ Configuration of Interference Server Setup, Database, File Server, Client Machine for S3D related application.
- ❖ Installation & Configuration of Window and Servers 2008/2012 R2 and core for client and user's machines and Setup and configured IIS, VMware Workstation, Virtualization Technology, Citrix and Panzura server.
- Creation of Plant, Permission Group creation, assigning permissions and permission group management etc.
- Setup of FTP mechanism for data transfer & Scheduled VUE (Review file) generation from S3D.
- Create project database backups & Restore and Managing the Project Plant structure.
- Roles and permissions configuration and Creation of View Styles, Graphic Rules, Label Rules.
- ❖ Working with Virtualizing Environment using Citrix Xen app server and VMware and other virtual software etc.
- Knowledge of Smart Plant Reference Data for SP3D spec/catalogs & programming languages such as VB.Net VB6, API, XmI, UmI, SQL, Html, PML and rule checker service and codeless IFC rules etc.
- Experience on exchange structural data using CIS/2 & SDNF file from various model like Tekla, S3D, E3D etc.
- Resolve of errors both found while Bulk loading as well as found during the verify consistency checks.
- SP3D Model database and catalog maintenance & Plant Migration like model, Spec from PDS to SP3D & etc.
- Supporting users of all the discipline for Troubleshooting in kind of issues that arise during modeling, Isometric generation etc. and also troubleshooting of window server and Software applications.
- Experience on managing Laser scan data and manipulation, Model rendering and Project Task Scheduling etc
- Run DB Integrity and Database Cleanup and performance maintenance.
- SP3D technical bulletin development & documentation to assist in design efforts, automations tasks.
- Providing training all modules on S3D, SPF, PDS, PID, SPR, tools and etc with installation and Configuration.
- Provide support to the SP3D team in various issues like customizing templates, drawing styles, MTO and etc.
- Develop plans for system implementations & data transfer, Interfaces, Catalog Replication, Digitalization and Cloud Environment and implement them.
- ❖ Deployment ASD Global Tools like ASD OptiPlant and PSO for FEED stage and Catalog replication strategies
- Admin task PDMS: Project Setup, PDMS database, Paragon, Specon, Lexicon module and symbols creation, Spec and Catalog Creation, Backup, restoration and PDMS PML & .Net customization etc.
- Provide guidance to engineering management on effective use of Smart Plant as applied to aspects such as Construction Work Packaging, fabrication detailing, isometric generation, progress measurement, operability constructability, maintainability, foreign "value centers", design replication, layout optimization, design reviews safety in design, eliminating clashes and stress etc.

3. Company Name: Idom India Pvt Ltd.	Deppt	: Engg. (SP3D/SM3D/SPR/SPF/PDMS)
Duration (From): Jan 2016	То	: June 2017

Project : Cartagena Puertollano Tarragona Refineries.

Client : Repsol Refineries.

- Installation & Configuration Intergraph Tools like SPLM, SPF, SP3D, SPR, SPP&ID, SPEL, SPI & SP Isometric and Engineering application/utilities to suit Project requirements on Workstation / Server.
- Knowledge of SP3D Metadata browser, Smart Plant Architecture & Smart plant Schema and data flow amongst The Smart Plant tools and Creation of Custom Catalog in S3D.
- Administration Task and activities Projects Setup, Project Management, Managing Plants, Backup, Restoration Database Maintenance, Configuration of Interference Server Setup, Customization Reference data & Drawings Users Creation, Access Control and Approval Status, SP3D Updates and Maintenance, Plant Model Migration PDS to S3D and Spec and drawings Conversion.
- SPF Administration: Setup, Configuration, Integration, Schema Editor, integration with other 3D/2D tools such as S3D, SPEL, SPI, SPPID, SPR, implementing attribution and mapping and added properties, Classes and interface, Publishing and retrieving of data from authoring tool to SPF, Site creation, Model Security
- Admin task PDMS: Project Setup, PDMS database, Paragon, Specon, Lexicon module and symbols creation, Spec and Catalog Creation, Backup, restoration and PDMS PML customization etc.
- Installation & Configuration RDBMS such as MSSQL & Oracle, DB creation, managing & Report SQL queries.
- Developed and Customization of Smart Plant Reference Data as per project requirements eg. Piping Specs and Equipment's, Catalog, code list etc.
- Creating parametric Symbols dll library using 3D Symbol Designer CAXpert, Solid edge etc.
- Configuration and Customization Isometric, Orthographic Drawings, Various Report as per project requirement.
- Create Volumes, Filters, Surface style, Drawing Template, Labels, Display set in SPR & Setup Fabrication Iso and Stress Iso & WBS Iso Package and pipe support drawings, View Styles, Graphic Rules, Label Rules etc.
- Configuration of Interference Server Setup, Database, File Server, Client Machine for S3D related application.
- Installation & Configuration of Window Servers 2008 and VMware Workstation 11 Virtualization & Citrix server.
- Creation of Plant, Permission Group creation, assigning permissions and permission group management etc.
- Setup of FTP mechanism for data transfer & Scheduled VUE (Review file) generation from S3D.
- Working with Virtualizing Environment using Citrix Xen app server and VMware and other virtual software etc.
- Knowledge of Smart Plant Reference Data for SP3D spec/catalogs & programming languages such as VB and Xml, Uml, SQL, Html, PML, Paragon & etc.
- SPF Administration: Setup, Configuration, Integration, Schema Editor, integration with other tools such as S3D, SPEL, SPI, SPPID etc
- Knowledge of creating and managing interface with additional related application such as SPF, SPI, SPPID etc.
- Knowledge of Installation of Smart Plant Foundation and publish drawings.
- ❖ Installation & Configuration of Window Server 2008/12, VMware Workstation 11 Virtualization & Citrix xen app.
- Ability to handle the trouble shooting during the execution of the SP3D project for the various tasks and able to guide the 3D designers for modeling and drawing extraction task.
- ❖ DB Cleanup & Reference Data Customization including other Administrative activities.
- 3rd Gen Modularization concept.
- Technical Support for users in the form of direct contact submitted request one-on-one and formal training.
- Working on Various oil and gas Detail Engineering Projects and Development of Equipment's layout and Piping layout and Development Overall Plot Plan and GA & Isometrics Drawings and Vessel Nozzle Orientation etc.
- Worked on Various oil and gas units like that Separation and LC Fining Unit, Delayed Coker Unit, Hydrotreating Unit, Hydrocracking Unit and Gasification Unit with 3rd Gen Modularization concept Projects.
- Providing training all modules on SP3D, PDS, SPPID, SPR, in tool and etc with installation and Configuration
- Provide support to the SP3D team in various issues like customizing templates, drawing styles, MTO etc
- Develop plans for system implementations & data transfer, Interfaces, Catalog Replication, Digitalization and Cloud Environment and implement them.
- Rich Experience on managing Laser scan data and manipulation.
- Experience on exchange structural data using CIS/2 & SDNF file from various model like Tekla, S3D, E3D etc Provide guidance to engineering management team on effective use of Smart Plant as applied to aspects such Construction Work Packaging, fabrication detailing, isometric generation, progress measurement, operability constructability, maintainability, foreign "value centers", design replication, layout optimization, design reviews safety in design, eliminating clashes and stress etc
- ❖ Familiar with ASME B31.3 for Process Piping, ASME B31.1 for Power Piping, ASME B 36.10M Carbon Steel ASME B 36.19M Stainless Steel, flanges and fitting Codes etc.

2. Company Name: Fluor Daniel India Pvt. Ltd	Deppt	: Egg. (SP3D/SPF/SPR/PDMS)
Duration (From): Aug 2014	То	: Jan 2016

Project: KNPC CFP MAB2

Client: KUWAIT NATIONAL PETROLIUM COMPANY.

Project : North-West Red Water (NWR) Partnership sturgeon refinery CANADA.

Client : North West Upgrading Inc. and Canadian Natural Resources Limited.

- ❖ Worked on Various oil and gas units like Separation and LC Fining Unit, Delayed Coker Unit, Hydrotreating Unit Hydro-cracking Unit and Hydrogen Production Unit with 3rd Gen Modularization concept Projects.
- Installation & Configuration Intergraph Tools like SPLM, SP3D, SPR, SPP&ID, SP Spoolgen, SPEL, SPI & SP Isometric and Engineering application/utilities to suit Project requirements on Workstation / Server.
- Knowledge of SP3D Metadata browser, Smart Plant Architecture & Smart plant Schema and data flow amongst The Smart Plant tools.
- Administration Task and activities Projects Setup, Project Management, Managing Plants, Backup, Restoration Database Maintenance, Configuration of Interference Server Setup, Customization Reference data & Drawings Users Creation, Access Control and Approval Status, SP3D Updates and Maintenance, Plant Model Migration PDS to S3D and Spec and drawings Conversion.
- Installation & Configuration RDBMS such as MSSQL & Oracle, DB creation, managing & Report SQL queries.
- Developed and Customization of Smart Plant Reference Data as per project requirements eg. Piping Specs and Equipment's, Catalog, code list etc.
- Creating parametric Symbols dll library using 3D Symbol Designer CAXpert, Solid edge etc.
- Configuration and Customization Isometric, Orthographic Drawings, Various Report as per project requirement.
- Create Volumes, Filters, Surface style, Drawing Template, Labels, Display set in SPR & Setup Fabrication Iso and Stress Iso & WBS Iso Package and pipe support drawings, View Styles, Graphic Rules, Label Rules etc.
- Configuration of Interference Server Setup, Database, File Server, Client Machine for S3D related application.
- Installation & Configuration of Window Servers 2008 and VMware Workstation 11 Virtualization & Citrix server.
- Creation of Plant, Permission Group creation, assigning permissions and permission group management etc.
- Setup of FTP mechanism for data transfer & Scheduled VUE (Review file) generation from S3D.
- Working with Virtualizing Environment using Citrix Xen app server and VMware and other virtual software etc.
- Knowledge of Smart Plant Reference Data for SP3D spec/catalogs & programming languages such as VB and Xml, Uml, SQL, Html, PML, Paragon & etc.
- Knowledge of creating and managing interface with additional related application such as SPF, SPI, SPPID etc.
- Knowledge of Installation of Smart Plant Foundation and publish drawings.
- ❖ Installation & Configuration of Window Server 2008/12, VMware Workstation 11 Virtualization & Citrix xen app.
- Ability to handle the trouble shooting during the execution of the SP3D project for the various tasks and able to guide the 3D designers for modeling and drawing extraction task.
- ❖ DB Cleanup & Reference Data Customization including other Administrative activities.
- 3rd Gen Modularization concept.
- Technical Support for users in the form of direct contact submitted request one-on-one and formal training.
- Working on Various oil and gas Detail Engineering Projects and Development of Equipment's layout and Piping layout and Development Overall Plot Plan and GA & Isometrics Drawings and Vessel Nozzle Orientation etc.
- ❖ Worked on Various oil and gas units like that Separation and LC Fining Unit, Delayed Coker Unit, Hydrotreating Unit, Hydrocracking Unit and Gasification Unit with 3rd Gen Modularization concept Projects.
- Equipment Modeling, Piping Modeling, Support Modeling, GA & Isometrics Extraction & Structure Modeling and Space Management and squad checking etc.
- Modeling of Equipment like Pumps, Filters, Exchangers, Vertical Columns, Silencers, Sample and Turbines, Air Coolers, Cooling Towers, Turbines, Compressors, and Knockout Drums & arranging as per layout.
- Piping routing like Pump Piping and Heat Exchanger Piping, Column Piping, Fired Heater Piping, Compressor Piping, Air Cooler Piping, Steam Trap and Manifold Piping, Utility station, Fire Water Piping Flare piping, slope Piping, PSV Piping, Jacketed Piping and Rack Piping As per PID and all related Docs.
- Modeling and arrangement of Utility Station & Modeling of Steam Trap and Condensate Manifold.
- Instrument Modeling like Pressure Gauge, Temperature Gauge and different types of Flow Meter etc.
- Work with UG Piping, Prepare of PEFS, Line list Docs for UG Piping & Modeling in UG Piping, Manhole, Catch basin & etc.
- ❖ Familiar with ASME B31.3 for Process Piping, ASME B31.1 for Power Piping, ASME B 36.10M Carbon Steel ASME B 36.19M Stainless Steel, flanges and fitting Codes etc.

1.Company Name: Toyo Engineering Pvt. Ltd	Deppt	:	Egg. (PDS/SP3D/PDMS)
Duration (From): July 2013	То	:	Aug 2014

Project : GIR Project for BASF.

Client : BASF at Dahej.

Project: Regasification Plant Project.

Client : Petronet LNG Ltd.

- Smart Plant System Installation Carrying out Smart Plant System installation at customer site, Installation and Configuration of RDBMS (SQL & Oracle), Micro Station, SP3D, SP Layout, SPR and related Tools.
- Smart Plant 3D Project Setup & Installation of databases Oracle and SQL and Intergraph Batch Services.
- Project Up gradation using upgrade utility.
- Creation and Maintenance of the SP3D SQL project server Database and Maintenance of sp3d Reference Data Catalogue & User Access control for users and Site back up, Plant back up.
- Administration activities Project Setup, Project Management and Managing Plants, Backup, restoration process Database Maintenance, Configuration of Interference Server Setup, Customization of Reference data, drawings User Creation, Access Control and Approval Status, SP3D Updates and Maintenance.
- ❖ Work share Activities like Synchronize Reference data, Publish & retrieve drawings.
- Troubleshooting and User Support for SP3D and Organizing Catalog Explorer.
- Drawing and Report Customization.
- Knowledge of Smart Plant Reference Data for SP3D spec/catalogs & programming languages such as VB and Xml, SQL, Html & etc
- Symbol Creation and Customization.
- Customization and Implementation of reference data for Equipment, Piping, Cable trays and Structures and etc.
- ❖ DB Cleanup & Reference Data Customization including other Administrative activities.
- Extract Isometric and resolve troubleshooting.
- Worked on Detail Engineering Projects, Development of Overall Plot Plan (Equipment layout, piping layout and Development of GA Drawings Piping Isometrics and Vessel Nozzle Orientation etc.).
- Worked with Separation Unit, LC Fining Unit, Delayed Coker Unit, Hydrotreating Unit, Hydro production unit and Hydrogen Cracking Unit & etc.
- Equipment Modeling, Piping Modeling, Support Modeling, GA & Isometric Extraction & Structure Modeling and Space Management.
- ❖ Familiar with ASME B31.3 for Process Piping, ASME B31.1 for Power Piping, ASME B 36.10M Carbon Steel ASME B 36.19M Stainless Steel, flanges and fitting Codes etc.
- Modeling of Equipment like Pumps, Filters, Exchangers, Vertical Columns, Silencers, Sample & Air Coolers and Cooling Towers, Turbines, Compressors, and Knockout Drums & arranging them as per layout.
- Piping routing like Pump Piping, Heat Exchanger Piping, Column Piping, Heater Piping, Compressor Piping, Air Cooler Piping, Steam Trap and Manifold Piping, Utility station, Fire Water Line, Flare Line, Slope Piping PSV Piping, Jacketed Piping. Coordinate and Grid System, Grid Manipulation.
- ❖ Experience in Routing Pipe lines by using P&ID, ISO and GA in SP3D.
- Experience in Modeling Equipment by using data sheet in SP3D.
- Preparation of General Arrangement Drawings.
- Study of P&ID, Plot Plan and Equipment Layout drawings.
- Checking for accessibility and maintenance of the piping components and equipment's.
- Pipe support selection & Support Sketch Preparation.
- Performing clash check of piping with respect to other disciplines by using SPR.
- Coordinating and interacting with other departments.
- Vessel and Grating Supports, Handrails.
- Structural Pedestals Footings, Equipment Foundations, Pipe racks, Ladders, Stairs, Trenches, Slabs opening.
- Basic Knowledge of Electrical Task in SP3D & SLD, Utility location plan, Plot plan.
- Checking of Isometrics as per Standards, 3D Modeling review and 2D drawing checking as per standards.
- Participating in internal as well as External Review and updating the comments.
- Scheduling of Isometrics and GA drawings as per assigned Schedule.
- Checking of Equipment Layout as per the vendor Information Available.

Future Goals

- P.Eng. and PMP Certification.
- Smart Plant Foundation (SPO/SDA/SDx/SAP/OSIsoft PI) Digital Integration Consultant.
- ❖ Implementation of AI, ML and data analytical in Plant design system.
- Master of Science in Data Science.

Academic & Certification Forte

- B. Tech in Mechanical Engineering with 70% SHARDA UNIVERSITY Greater Noida Delhi NCR.
- Charted Engineer AMIE, IEI (India).
- Data mining & Machine Learning with Python Certification.
- C# Coding Certification.
- Microsoft SQL Server Certification.
- SAP PM Certification
- Oracle 11g Certification.
- VMware & Citrix Xen App 6.5 Certification.

Personal Details

Father Name : Prempal Singh

Sex : Male Marital status : Single

Languages Known : English, Hindi

Nationality : Indian Passport : J7983748

Address : A-146 Sector 19 Noida

Declaration

I hereby declared that the above-mentioned information is correct up to my knowledge and I bear the responsibility for the correctness of the above-mentioned.

Date: / /2019 Signature
Place: Jawahar Singh