

LEAD PROCESS & PROJECT CONSULTANTS OIL&GAS-CHEMICAL-ENERGY

Name: Sushma Gupta
Profession: Lead Process & Project Engineer (Consulting Project Management)
Total Experience: 14 years of experience in Refineries, Petrochemical, Oil & Gas, Chemical, Energy industries
Nationality: Indian, Passport No: Z3690791 (Expiry Date: 28th February 2027)

Qualifications:

M.Tech in Chemical Engineering (Computer Aided Process Plant Design), from IIT- Roorkee, Uttarakhand, India, 8.96 C.G.P.A. on a 10 point scale, First Division with Distinction, 2008
B.Tech in Chemical Engineering, from S.V.N.I.T. – Surat, Gujarat, India, 71.25%, First Division, 2006
10+2 Science, from G.S.E.B., Surat, Gujarat, India, 67.38%, First Division, 2002
10th, from G.S.E.B., Surat, Gujarat, India, 77.71%, First Division with Distinction, 2000

Key Work Experience: Lead Process & Project Engineer (CPM) with 14+ years of experience in Proposal/Basic/FEED/Detailed Engineering/EPC of Upstream-Onshore & Offshore, Downstream-Refineries, Petrochemical, Oil & Gas, Chemical, FMCG, Steel & Energy industries. with expertise in building and leading engineering teams. Business analysis & Process digitalization's with expertise in Big Data-Analytics-Data Science-ML-DL-AI, Agile-Scrum-Lean-Six Sigma Techniques. Proficiency in Simulation & Hydraulic Design. Familiar with international codes and standards i.e. API, ASME, ANSI, OISD, NFPA, OSHA, EPA etc. Received various recognitions letters. Attended various technical trainings & workshops. Participated & Presented papers at National and International workshops/seminars. Well acquainted with simulation & hydraulics software's i.e. AspenPlus, HYSYS, UNISIM, HTRI, FlareNet, Promax, OLGA, PVElite, CAESAR-II, Chemcad, Korf, AFT-Fathom & ARROW, SYSEEL, PumpDim, Primavera etc.

Programming language's i.e. MATLAB, R, SQL, Python, Java, Apache Spark, Hadoop, ProcessingJs, C, C++ etc.

Professional Certificate's:

- PMI-Membership & "PMP Exam Pre Seminar-35 Contact Hours/ PDU" by PMI
- Audit "Micro Master Program of Big Data"-Analytics-Data Science-ML-DL-AI by University of Adelaide
- Audit "Professional Certificate in Data Science" by HBS-Harvard Business School
- "Oil & Gas Industry Operations and Markets" by Duke University
- "IWCF- International Well Control Course" by Halliburton
- "Six Sigma Core Green Belt" by UOP – A Honeywell Company
- "ISO 9001-Quality Management Systems-Internal Quality Auditor" by UOP – A Honeywell Company

Career Summary:

Employer Name	Location	Designations	From	To
Halliburton Offshore India Pvt. Ltd.	India	Integrated Services Coord	May 2019	Till date
L&T Technology Service India Pvt. Ltd.	Vadodara, India	Discipline Lead - Process	March 2017	April 2019
Petrofac Engineering India Pvt. Ltd.	Gurgaon, India	Process Engineer (Lead)	April 2014	January 2017
UOP India Pvt. Ltd. (A Honeywell Co.)	Gurgaon, India	Design Engineer (Process)	July 2012	April 2014
Jacobs Engineering India Pvt. Ltd.	Mumbai, India	Process Engineer (PMC)	May 2010	June 2012
M. N. Dastur & Co. (P.) Ltd.	Mumbai, India	Chemical Engineer (Project)	August 2008	April 2010

Professional Experience:

MAY 2019 TO Halliburton Offshore India Pvt. Ltd.

TILL DATE Integrated Services Co-Ordinator (Consulting Project Management)

Satellite Project - Cairn India Pvt. Ltd. – Barmer, Rajasthan, India -: Executing seamless FEED & Detail Engineering activity of Onshore, Offshore of Oil & Gas Projects, FPSO marine system and LNG-Liquefied Natural Gas Unit

- Technical & leadership expertise on all engineering subject matter, Evaluation of scope of work & ITT documents
- Analysis of cost estimates, schedule & resource forecasting, risk evaluation, response plans of all engineering phases
- Reviewing potential change notices, variation order proposals, project management plan and C&P actions plans
- Project risk assessment, Effective communicating & Managing project change & stakeholders-Client, PMC & Contractors
- Strategy, Scheduling, Planning & Monitoring of engineering, procurements & construction, start-up project activities
- Managing day to day progress for ensuring project scope & budget, identifying deficiencies & developing recovery plan

MARCH 2017 TO L&T Technology Services India Pvt. Ltd.

APRIL 2019 Discipline Lead - Process

LYB Edison – PP Catalyst Expansion Project – LyondellBasell, NJ, USA -: Leading FEED & Detail Engineering activity of PP (PolyPropylene) Catalyst Expansion Plant

- Leading discipline for work scope evaluation, man-hour estimating & managing team to meet budget & schedule
- Conducting Value Engineering Studies, Process Engineering Design Review & Verification, Vendor Data Review
- Conducting Safety, HAZID, ENVID, HAZOP, SIL and 3D Model review meetings & Tender Bid Evaluation
- Development of various departments work practices & procedures, calculation spreadsheets & conducting training's
- Mentor & develop staff, establish & monitor staff performance & development goals and set objectives & priorities

APRIL 2014 TO Petrofac Engineering India Pvt. Ltd.

JANUARY 2017 Process Engineer (Lead)

- KNPC - Clean Fuels Project (CFP), Kuwait National Petroleum Company, MAB Refinery, Kuwait: Detail Engineering Activity of HCR-Hydrocracker Units, Leading Detail Engineering Activity of HCR Flare Unit and Air System Unit

LEAD PROCESS & PROJECT CONSULTANTS OIL&GAS-CHEMICAL-ENERGY

- **FGP - Fadhili Gas Project, Saudi Arabian Oil Company, Jubail, Saudi Arabia:** Leading Detail Engineering Activity of Sulfur Storage & HDO Storage - Handling, Loading, Unloading, Storage & Transfer Units, also involved in supporting activity of Detail Engineering activity of SWS-Sour Water Stripper & Flare System Unit design on Flarenet software
- **BAPCO Proposal - Bapco Modernization Program (BMP) - The Bahrain Petroleum Company, Bahrain:** Proposal of Residue Hydrocracking Unit, Hydrocracker Unit, HDU-Hydro Desulphurisation Unit, CDU-Crude Distillation Unit, VDU-Vacuum Distillation Unit, SGP-Saturated Gas Plant, H₂-Hydrogen Production & HRU-Hydrogen Recovery Unit

Key responsibilities includes:

- Review & Development of Process & Utility Flow Diagram (PFD/UFD), Process Safeguarding Flow Diagram (PSFD), Design Pressure & Design Temperature (DPDT) Diagram and Piping & Instrument Diagram (P&ID), C&E Diagram
- Review & Development & Calculation of various Equipment's, Instrumentation's and PSV's & CV's Datasheets etc.
- Review & Development and Thermal design & rating of Shell & Tube and Air Cooled Heat exchangers on HTRI software
- Review & Development of Process Design Basis, Process Description, Various Project & Operating Philosophy
- Review & Development of Relief & Flare Load Summary, Vapor depressurization/Blowdown & Dispersion study
- Review & Development of Utility, Chemical & Effluent Summary, Equipment & Line list etc., Vendor Data Review
- Participating in the HAZID, ENVID, HAZOP, SIL and 3D Model review meeting & Tender Bid Evaluation

JULY 2012 TO UOP India Pvt. Ltd. (A Honeywell Company)

APRIL 2014 Design Engineer (Process)

- **Vung Ro Petroleum Ltd., Vung Ro Refinery Project (Plant Capacity: 8 MTPA)- Dong Hoa District, Vietnam:** Leading Unit of BEP-Basic Engineering Design Package of a new Unsat (RFCC) LPG Merox Unit
- **Tengizchevroil (TCO)-Future Growth Project-Wellhead Pressure Management Project (WPMP)-Tengiz Field, Western Kazakhstan:** Leading Change order of the Basic Engineering Design Package of a standalone Naphtha Merox Unit
- **Dangote Oil Refining Company (DORC), Lagos, Nigeria:** Leading Proposal of new LPG Merox Units
- **Involved in various proposal activity of Amine treating units:** Trinity CO₂-NGL Recovery from EOR CO₂, Gazpromneft-MNPZ-Coker NHT, Pemex Salamanca, SOCAR, IOCL, Pavlodar-DHT

Key responsibilities includes:

- Development, optimization & debottlenecking of process flow scheme along with process simulation, generation of heat and material balances, preparation of equipment list, process hydraulics, material selection diagrams, piping and instrument diagrams, analysis of unit design & operation to generate relief loads and relief valve sizing etc.
- Development of various equipment specifications such as Vessels, Storage Tanks, Separators, Reactors, Columns, Heat Exchangers (i.e. Shell & tube, Plate type & Air-Cooled), Pumps, Compressors and Pressure Relief Valves etc. And various specifications such as Utility, Catalyst, Chemicals, Effluent Summary & other process specialist items etc.
- Conducting Internal Design Basis Review, PFD Review, Hydraulics' Review, Design Conditions and P&ID Review meetings, Discussing with Technical services group, releasing Minutes of Meetings Notes for the same
- Technical support for the proposals activity of amine treating as determination of lean amine flow based on product spec for Gas & LPG Amine Absorbers, generation of Flagging file & HWB using Promax simulation software
- Investigate new concepts, work with R&D team, review lab analysis report & make implementation recommendations
- Technical services assistance, troubleshooting assistance, pre-commissioning & commissioning assistance

MAY 2010 TO Jacobs Engineering India Pvt. Ltd.

JUNE 2012 Process Engineer (PMC)

LUBEREF – Saudi Aramco Lubricating Oil Refining Company - GII/GIII Expansion Project - Yanbu, Saudi Arabia: FEED & Detail Engineering of Sulfur Complex i.e. ARU-Amine ReGeneration, SWS-Sour Water Stripper, SRU-Sulphur Recovery Unit

- Pumps & Compressors hydraulic and line hydraulics calculations, Sizing of Storage tanks, Vessels and Separators etc.
- Thermal design & rating of Heat exchangers on HTRI software & Simulation of Sour Water Stripper on Hysys software
- Development & Preparation of Process Flow Diagram (PFD) & Piping & Instrument Diagram (P&ID)
- Development of Equipment & Instrument Process datasheets, Equipment & Line List, Utility specifications etc.

AUGUST 2008 TO M. N. Dastur & Co. (P.) Ltd.

APRIL 2010 Chemical Engineer (Project)

- **Tata Steel Plant – 2.9 MTPA (6.8 to 9.7 MTPA) Expansion Project – Jamshedpur, India:** Basic and Detail engineering
- **Vizag Steel Plant – 6.3 MTPA Project – Visakhapatnam, India:** Basic and Detail engineering activities
- **Gremach Steel Plant Project – Cuddapah (2 MTPA) & Kolhapur (1 MTPA), India:** Proposal/Pre-engineering activities

Key responsibilities includes:

- Development of Plant Material Flow-sheet & Fuel Balance, BFD, PFD and P&ID etc.
- Development & Evaluations of various Equipment Datasheets, Vendor Drawing Scrutiny and Tender bidding etc.
- Development activities related to the Liquid & Gaseous Fuel System, Fuel Oil Storage & Distribution System, Cryogenic-Air Separation Process Plant, Design of Buffer Vessels for O₂, N₂ and Ar services on PVElite software, Sizing, Selection & Stress Analysis of Piping System on CAESAR-II software etc.
- Development of Water & Hydraulic Flow Diagram of the Water System, Pump House and Pump Area Layout, Raw Water & Waste Water Treatment System, Demineralized & Softening plant, Fire Fighting Piping Network System
- Development of Concept Notes & Detail Reports for Techno-Economic Feasibility Report etc.

JULY 2006 TO IIT Roorkee (Indian Institute of Technology)

JUNE 2008 (Specialization: Computer Aided Process Plant Design - Chemical Engineer)

M.Tech thesis on Modelling and Simulation of Membrane Micro-Channel Reactor, Development of Mathematical Model, Programming of model on MatLab and validation of it with experimental data's available in literature and study of the effect for various operating parameters & catalyst's for water gas shift reaction. Various Technical Papers presented at National and International Levels.