

Dhaval Shah (M.Eng., EIT)

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PROFILE SUMMARY

- Over **8 years process engineering** experience with comprehensive business and technical skills set with expertise in designing, technical services to operations, project management, leadership, liaising with clients and vendors in variety of oil and gas, refinery and petrochemical projects (ranging from conceptual study to basic/front-end engineering (FEED), proposal engineering, EPC and commissioning).
- Specialized in design basis, PFDs, Process simulations, P&IDs, international codes and standards, equipment designing and specification, piping/pipeline hydraulics etc. Well adept with **process safety activities** like PSV and flare sizing, hazardous area classification, cause and effect diagrams, process hazard and safety assessment, LOPA, HAZID, PHA, management of change (MOC), HAZOP and SIL studies.
- Well convergent with process simulators (HYSYS, ASPEN PLUS, VMG SIM), heat exchanger designing (HTRI, HTFS), hydraulics (PipeNet, ASPEN Flarenet), safety (PHA for HAZOP) etc.
- Registered as **Engineer in Trainee** and pursuing PEng designation with APEGA. Master of Engineering in Chemical Engineering from University of Alberta in 2017 with specialization in process design in hydrocarbon industry and engineering risk and safety management.
- Motivated achiever with a positive, productive and proactive attitude towards work, colleagues, clients and other business stakeholders.

PROFESSIONAL EXPERIENCE

Process Engineer

Mar 2013 - Jun 2015

Toyo Engineering Corporation, Japan (Including one year deputation Singapore Office)

- As deputy lead, **successfully achieved** completion of two oil and gas projects (Water Injection Project (Iraq) FEED project worth \$80 million and Petrobras FPSO Facility (Brazil) EPC project worth \$800 million) well within allotted budget where I **managed a team of seven junior engineers**, reviewed the technical documents, controlled man-hour distribution, communicated closely with other departments for smooth execution of project.
- Reviewed/prepared process engineering deliverables like process flow diagram, material selection diagram, process safety diagram, P&ID, system design basis, system hydraulics, pump and compressor sizing, cause and effect chart, process datasheet etc. I received a reward for producing deliverables with high technical accuracy and quality (**about 68% of documents were got approved in first issue to client**).
- Successfully completed simulation for fuel gas compression system and highlighted key concerns to project manager for compressor capacity. This study **saved 1250 man-hours** for re-ordering of **20 million USD Compressor Package**.
- Performed safety activities like SAFE chart based on API standard requirement, process safety narratives, cause and effect diagram, PSV and flare sizing and HAZOP, MOC, LOPA study and close out report.
- Acted as the main point of contact between internal and external stakeholders including senior management, clients and equipment package vendors.
- Liaised with commercial team to achieve annual sales & profit objectives and assisted with **project forecasting**.

Process Engineer

Dec 2012 – Feb 2013

Tecnicas Reunidas Engineering LLC, Oman

- **Immensely contributed** in preparation and review of P&ID, instrument process datasheet and PSV sizing documents, design of pipelines, pump, control valve, associated system in hydraulics loops of plants for assuring flow performance with help of in-house tools for very tightly scheduled sulphur recovery project of LUKOIL Russia.

Senior Process Engineer

Jul 2007 – Dec 2012

L&T-Chiyoda Limited (Including two years of deputation to Chiyoda Corporation HQ, Japan)

- Successfully converged the simulation for LNG processing trains, liquefaction area, offsite facilities like LNG storage and loading area, BOG recovery system, stratification study etc. various process studies using HYSYS software. I was rewarded with L&T-Chiyoda ICONS award for this achievement. Additionally, developed dynamic simulation of LNG roll-over in storage tank using steady state mode of HYSYS simulator.
- Reviewed the critical documents and supervised the process engineering activities which include PFDs, P&IDs, MSDs, process safety diagram, system design basis, cause and effect chart, process datasheets etc.
- Design of pipeline, pump, control valve, associated system in hydraulics loops of plants for assuring flow performance with help of in-house tools called ProDraw and Hydro-Ace.
- Long term site visit for debottleneck study for Cairn Energy's oil processing facility, where I applied "Ring Header Concept" to piping system and **saved 35M USD** of production loss due to train shutdown, rerouting and installation of piping components.
- Performed process engineering for crude oil and gas well pads, receiving facilities, oil-gas separation system, oil treatment storage & export system, produced water, injection water & power fluid systems and utilities like hot oil heater, incinerator, nitrogen generation unit, instrument air package, chemical injection packages, HP and AP flare system etc.
- Quality and consistency check for all process deliverables with respect to technical accuracy, client requirement and project standards.
- Successful co-ordination between disciplines' interface and subcontractor/vendor to maintain schedule and quality of project efficiently.

EDUCATION

Master of Engineering (M.Eng.) Chemical Engineering University of Alberta, Edmonton, Canada Focus: Process Design and Safety Engineering in Hydrocarbon Industries	2016 - 2017
Bachelor of Engineering (B.E.) Chemical Engineering Diploma in Petrochemical Technology (D.PCT.) Maharaja Sayajirao University of Baroda, Vadodara, India University Gold Medalist in B.E. Chemical engineering for securing the first rank in overall GPA.	2003 - 2007 2000 - 2003

PROFESSIONAL DEVELOPMENT

- Associate Member of Institute of Chemical Engineers (IChemE), London, U.K. and Associate Member of Indian Institute of Chemical Engineers (IICChE), Kolkata, India.
- Certification Course of Heavy Oil Course 101 from Canadian Heavy Oil Association (CHOA). Member of CHOA.
- Certificate in Heat Exchanger Designing from HTRI.
- Active Safety tickets such as (Confined Space Entry, H₂S Alive, First Aid CPR) 2017, WHMIS 2015 Training