

Chemical Engineer with experience in Oil and Gas Industry as a Process Engineer

## **Profile Summary**

- M. Tech in Chemical Engineering with more than 4 years of experience in Oil and Gas industry
- Performed HYSYS simulation for various Natural Gas Processes like Amine Treating, Refrigeration and Ethane Recovery
- Developed PFD, H&MB and P&ID based on FEED study and Detail design work.
- Performed PSV sizing and flare header analysis.
- Performed line sizing for liquid, vapour and two phase lines
- Well versed with the simulation software HYSIS, HTRI and FLARENET.
- Reporting to Engineering Manager, I was also involved with project co-ordination with Process and Drafting team
- Performed QA/QC for Drafting work for PFD, P&ID and Mechanical drawings like Fabrication drawing
- Completed the Honeywell Training Course on PDS 4527-Process Simulation with the help of Advanced-Process Modelling using Unisim Design
- Holds the merit of receiving Young Innovator Award (National Level) for solving the problem of Deepak Nitrites at ICT (Institute of Chemical Technology) Mumbai (Matunga) at the "Young Innovator Choice Competition" (YICC)
- Pleasing youthful personality with a zest for life, knowledge and sound understanding of technology

#### Education

- 2014 M. Tech. (Chemical Engineering) from U.I.C.T., Jalgaon, affiliated to North Maharashtra University with a CGPA of 7.9
- 2011 B.Tech. Chemical (Petrochemical Technology) from U.D.C.T., Amravati, affiliated to S.G.B.A.U. (Maharashtra) with 78.45%
- 2006 H.S.C from J.N.V., Shegaon affiliated to C.B.S.E. with 72.4%
- 2004 S.S.C. from J.N.V. Shegaon affiliated to C.B.S.E. with 74.4%

## **Organizational Experience**

#### June'14- till date

## Kanna Engineer and Drafters Private Limited, Pune as Process Engineer

- Responsible for:
- $\circ$  Hysys simulation
- PSV sizing calculations
- Preparation of PFD and P&ID drafting in AUTOCAD
- Hydraulics calculation
- Line and equipment sizing calculations
- Process datasheets for equipments and instruments.

## Indo Amines Ltd., Vadodara, Gujrat as Production Engineer

## June'11 – May'12 Key Result Areas:

# • Responsible for:

- Overall Production function involved in processing of controlling parameters
- All shop floor activities which come in the flow of manufacturing the product
- Control product quality as per market requirement
- Reporting duties to the Production Executive and Manager shift wise. If any problem arise during shift production. Give maintenance note to engineering and utility department and responsible for Process Development activities.

# **Industrial Projects**

- 1. NGL Recovery Project at Chevron's Mabee Facility in Andrews, TX.
- 2. Refrigeration skid for confidential client
- 3. Amine Treating Project
  - Duties performed for all these projects include:
- Assisted senior engineer with Simulating the Plant in Hysys
- Performed equipment sizing and prepared equipment datasheet
- Performed hydraulics calculations for all Process lines
- Assisted senior engineer in developing PFD, H&MB and P&ID for the project.
- Co-ordinate project activities with piping design team in developing 3D model for the skid in CADWorx
- Performed QA & QC for piping isometric drawings to ensure consistency between isometric and P&ID.
- 4. Crude / Condensate Storage Terminal Project for Trafigura Terminals Served as Process engineer for detail design phase of the project. Responsibility Includes:
- Project Includes two Internal Floating Roof, API-650 tanks, Booster Pumps and LACT units
- Performed API-650 tank sizing and datasheet
- Performed pump sizing calculations for the booster pumps
- Performed Emission calculations
- Provided Process specifications for Instrumentations.
- 5. Beaver, Crescent and Antelope Hills PSV verification project

   Served as Process engineer for detail design phase of the project. Responsibility Includes:
- Project Includes NGL recovery units with demethanizer, Dehydrator, Filters and pumps.
- Identify overpressure scenario
- Performed PSV calculations
- Developed Fire circle and flare header analysis.

# **Academic Projects**

# TitlePure Carbon Dioxide Gas Absorption Study in a Foam Bed Reactor (During M. Tech)PeriodOne Academic YearDescriptionThe project was divided into two phases. In the first phase the study of specific reaction by<br/>varying the different parameters like concentration of reactants, concentration of surfactant<br/>and volume of reaction mixture were studied. In the second phase characterization of product<br/>by XRD, FTIR were studied.

# Title Fuel from Waste Oil (During B.Tech)

Period Six Months

Description In this project, first the feed (waste oil from vehicles) was selected on the basis of carbon number availability and its cost. The middle product was synthesized by pyrolysis and various properties were studied, then the product obtained was further categorized by simple distillation and compared specification with standard properties of diesel and gasoline.

#### **Other Accolades**

- Won 1<sup>st</sup> prize for Young Innovator Award (National Level) for solving the problem of Deepak Nitrites at ICT (Institute of chemical technology) Mumbai (Matunga) at the "Young Innovator Choice Competition" (YICC), held during 9<sup>th</sup> to 12<sup>th</sup> January 2011.
- Represented Sant Gadge Baba Amravati University in Research festival (AVISHKAR) in 2010 held at Nasik during 21<sup>st</sup> - 23<sup>rd</sup> Jan 2011.

## **Training Attended**

- Completed the Honeywell Training Course: PDS 4527-Process Simulation: Advanced-Process Modeling using Unisim Design, from February 18th -19th 2014
- Completed Certificate Course on Piping Engineering (Online Version) conducted by Piping Engineering Cell, IIT Bombay.

## IT Skills

- Well versed with:
  - o Hysys
  - o HTRI
  - o AUTOCAD
  - Flarenet

#### **Personal Details**

• Date of Birth : 19<sup>th</sup> December, 1988

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- Languages Known :
- Address

- English, Hindi and Marathi Shelgaon Bazar, Tehsil-Motala,
- District-Buldhana (MS) PIN: 443102

#### Declaration

I hereby declare that the above mentioned information is correct upto my knowledge and I will solely be responsible for any discrepancy found in them.

Place: Pune Date: 21<sup>st</sup> June, 2017

Signature (Atul M. Kharche)