

## Summary

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### Years of Experience

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### Office of Employment

Wood Group Kenny  
Chennai, India

### Industries

- Oil and Gas
- Chemicals
- Downstream
- Process

### Types of Facilities

- Manufacturing Facilities
- Process Plants
- Production Systems

### Areas of Expertise

- Process Simulations
- Process Modelling
- DCS based plant monitoring
- Troubleshooting parameters
- Process Plant operation activities

## Professional Summary

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He is currently working as a Graduate Engineer- Flow Assurance and is responsible for the execution of multiphase flow studies using OLGA Software – supporting Australia projects.

He has less than a year experience as a graduate engineer trainee, worked in a merchant based Air Separation Unit at Linde PLC based out in Dehradun, India.

He has been involved in plant monitoring through DCS, Plant maintenance, operational activities and handling startup/shutdown in liquefied gases process plants.

## Qualifications

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### Education

B.Tech in Chemical Engineering with specialization in Refining and Petrochemicals, University Of Petroleum and Energy Studies, Dehradun, 2021

### Software / Skills

- OLGA
- Python (NumPy, Pandas)
- PVTsim
- Multiflash
- SQL
- Excel - VBA
- MATLAB
- MS-Excel
- DWSim
- Power Automate

### Languages

- English
- Hindi

## **Experience**

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### **Graduate Flow Assurance Consultant (Wood, India)**

#### **Woodside, Execute Phase Sangomar Phase 1 Development, Australia**

- Determination and calculation of required working volume of inhibitors for the Production, Gas Injection and Water Injection loops. Preparation of a calculation note on the same.
- Verification of Gas Injection System layout update from flow assurance perspective. The objective includes re-assessment of Steady State, Transient, Hot Commissioning, Dead Oil Displacement and Slugging data.
- Generation of Phase Envelopes and Hydrate curves for Production system and Gas Injection System fluids using Multiflash and PVTsim. Study of impact of Watercut on hydrate curves, BIPs tuning to study hydrate behavior and comparing between both softwares.

#### **Beach Energy, HBWS Flow redirection Impacts, Australia**

The study objective was to provide the steady state and transient analysis to establish normal operating conditions, threshold conditions, hydrate management, liquid management and process equipment adequacy.

- Preparation of case matrix and base input files for steady state and transient cases for OLGA.
- Steady state analysis to establish feasibility of different proposed operating conditions, MEG injection rates, equipment size and fluid flow behavior.
- Transient analysis of shutdown and restart cases, including study of hydrate risk, liquid buildup and determination of worst case scenario for liquid surge in the facility.
- Slugcatcher and production separator sizing adequacy study for high liquid surge restart scenarios.
- Wet Gas Flow Meter operating condition determination for normal, maximum and minimum flowrates for different ambient conditions.

### **Graduate Engineer Trainee**

#### **Linde India Ltd, Air Separation Unit, Dehradun, India**

- Worked as a shift engineer, responsible for monitoring plant processes, optimizing the production, assisting in plant startup activities and analyzing plant data.
- Gained experience of working on Yokogawa based DCS system.
- Acquired knowledge of various industry practices including PFDs, P&IDs, Equipment Datasheets, SOPs etc.
- Actively participated in plant troubleshooting, shutdown and startup activities.

### **Summer Intern**

#### **Phillips Carbon Black Limited, Kochi, India**

- Worked on the project titled "Improving Pelletizer operation and improve pellet quality of Carbon Black"

# Nishant Sharma

## Graduate Engineer- Flow Assurance



- Identified and analysed various factors affecting the pelletization operation and pellet quality in Carbon Black .
- Understood the manufacturing process of Carbon Black.
- Provided feasible solutions to improve the pellet quality with the agreement of management.

### Intern

#### Cognizant, India

- Learned the basic functioning and roles of IT Industry
- Gained knowledge about various IT tools such as SQL, Python, Java

### Professional History

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- Wood (Present)
- Linde PLC (2021-2022)
- Cognizant (2021-2021) as an intern
- Phillips Carbon Black Limited as an intern

