Dineshkumar Metta
Graduate Engineer- Flow Assurance

Summary

Years of Experience

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Office of Employment

Wood Group Kenny
Chennai, India

Industries

- Oil and Gas
- Upstream
- Onshore
- Offshore

Types of Facilities

- Production Facilities
- Onshore/Offshore Pipelines
- Upstream Systems

Areas of Expertise

- Reservoir fluid modelling
- Flow Assurance
- Petroleum production operations
- Reservoir Engineering
- Multiphase flow
- Data Analytics

Professional Summary

Dineshkumar Metta is currently working as a graduate engineer in flow assurance at WOOD, India and is responsible for execution of multiphase phase flow studies and provide technical service support for flow assurance. He has been involved in projects related to front end engineering design and conceptual studies. He is good at reservoir fluid characterization and simulation techniques. He has been involved in performing steady state simulations of oil and gas pipelines and injection networks.

Qualifications

Education

Master of Technology (M. Tech) in Petroleum Engineering, Indian Institute of Technology (Indian School of Mines) IIT(ISM) Dhanbad.

Bachelor of Technology (B. Tech) in Petroleum Engineering, Jawaharlal Nehru Technological University Kakinada (JNTUK), Kakinada.

Registrations / Certifications / Licenses

Member of Society of Petroleum Engineers Since 2015.

Software / Skills

- Synergi pipeline Simulator (SPS)
- Python, Machine Learning
- HTML, CSS
- Microsoft Suite: Excel, Word, PowerPoint
- PVTsim, OLGA
- UNISIM, PROSPER
- MATLAB

Languages

- English
- Telugu
- Hindi

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Experience

Graduate Engineer (Wood)

Zuluf Water Injection Facilities (Detailed Engineering Design-Ongoing)

- Verification of Steady State and Transient Analysis from the FEED phase.
- Performing steady state cases for the maximum and minimum flowrates as per the latest forecast for summer and winter ambient conditions
- Identification of the steady state capacity / flowrate possible through the Water injection pipelines/ lines.
- Verification and optimization of line sizes.
- Recommendation of the requirement of additional flanks due to increase in water injection rates in the later years.
- Performing pressure surge analysis for governing scenarios.

Internship

Learn Vault – Carbon Capture (May2021-June 2021)

- The different types of Carbon Capture Methods have been studied.
- Mostly the direct air capture, which will capture the carob-di- oxide in the atmosphere.

ONGC Ankleshwar- Surface Production Operation & Artificial Lift (May2018-June 2018)

- The different types of artificial lift systems and working and design of artificial list system has been studied.
- The surface production operations in Ankleshwar asset and Mehasena asset.

ONGC Rajahmundry- Cementing Operations (June 2017)

- The process of primary cementing and secondary cementing operations has been studied in this internship.
- Different cementing operations equipment is studied.

Post- Graduate Project:

Detailed Review of the history of Development of Algorithms for calculating Vapor-Liquid Equilibrium of Multi Component Hydrocarbon Mixtures

- Review project of the algorithms for calculating the vapor liquid equilibrium for multi component hydrocarbons. The development of cubic equation of state equations were studied under the project the need for the newer generation equation of state. Aspects of thermodynamic parameters were studied to suggest future developments in EOS models.
- The present generation of cubic equation of state like Soave-Redlich-Kwong (SRK), Peng-Robinson (PR) equation evolution and development are also being studied.

Post- Graduate Mini-Project:

Channel identification using Radioactive tracer log and Temperature log

- This project deals with the identification of channels in casing and tubing Using radioactive tracer log and temperature log.
- In this project I have done interpretation for some case studies. This project helps in evolution of leaks and channels in both production and injection wells.

Under-Graduate Project:

Predictive models for hydrate forming and dissociation conditions

- This project helps in modeling of hydrate forming in pipelines. Hydrate forming is one of the major flow assurance problems which take place in offshore wells.

- The better modeling will help in good prevention of forming because it is difficult to remove a hydrate after its formation. These projects also have space for dissociation conditions. I had done some MATLAB models for prediction of hydrate forming.

Other Projects:

CARBON CAPTURE STORAGE AND UTILISATION

- In this project studied various carbon capture mechanisms. The utilization of the carbon for the various oil and gas projects. Direct Air Capture (DAC) was studied in this project.
- The role of the Equation of State (EoS) and Vapor-Liquid Equilibrium (VLE) was also studied.

Professional History

- Wood (2022-Present)