# Petroleum Reserves Estimation and Uncertainty Analysis

## COURSE OVERVIEW

Petroleum reserves estimation and uncertainty analysis focus on methodologies, best practices, and regulatory frameworks for hydrocarbon reserves assessment. The course covers reserves classification, estimation, and reporting under the 2018 SPE PRMS and SEC regulations. Participants will explore volumetric analysis, material balance, decline curve analysis, and probabilistic methods like Monte Carlo simulations. Geological factors, recovery mechanisms, and economic influences on reserves estimates are examined. Case studies and practical exercises provide hands-on experience in reserves reporting, audit preparation, and defending estimates.

## WHO SHOULD ATTEND?

This course is designed for geologists, petroleum and reservoir engineers, reserves managers, and financial analysts involved in hydrocarbon reserves estimation and reporting. It is also beneficial for regulatory officials ensuring compliance, auditors and consultants reviewing reserves methodologies, and oil and gas executives making strategic investment decisions. Participants will gain essential skills to classify, estimate, and report reserves while understanding uncertainties that impact asset valuation and operational planning.

## COURSE OUTCOMES

Delegates will gain knowledge and skills to:
- Apply industry-standard methodologies for estimating petroleum reserves.
- Interpret and implement the 2018 SPE PRMS and SEC reserves classification frameworks.
- Utilize volumetric, material balance, and decline curve analysis for reserves estimation.
- Integrate probabilistic approaches, including Monte Carlo simulations, to assess uncertainty.
- Evaluate geological, technical, and economic factors influencing reserves estimates.
- Develop compliant reserves reports for audits and regulatory submissions.
- Analyze and validate reserves data to support investment and operational decisions.
- Enhance decision-making by incorporating uncertainty analysis into reserves assessments

## KEY COURSE HIGHLIGHTS

At the end of the course, you will understand:
- Exploration of petroleum reserves estimation methodologies.
- Focus on 2018 SPE PRMS and SEC reserves classification frameworks.
- Application of volumetric analysis, material balance, and decline curve techniques.
- Introduction to probabilistic approaches and Monte Carlo simulations.
- Examination of geological, technical, and economic factors.
- Practical exercises in generating compliant reserves reports.
- Insights into preparing for audits and defending reserves estimates.
- Tailored for professionals in reserves reporting, auditing, and decision-making.

All our courses are dual-certificate courses. At the end of the training, the delegates will receive two certificates.
1. A GTC end-of-course certificate
2. Continuing Professional Development (CPD) Certificate of completion with earned credits awarded