

Next-Gen Petroleum Geoscience: AI, Big Data & Cloud-Driven Insights

COURSE OVERVIEW

This course conceptualizes how advanced digital technologies are revolutionizing subsurface exploration, reservoir characterization and production optimization. The course integrates principles of petroleum geoscience with cutting edge applications of artificial intelligence, machine learning, big data analytics, and cloud computing, enabling participants to harness real time insights, streamline workflows and improve decision making across the exploration and production lifecycle. Through a blend of technical discussions, practical case studies and scenario base exercises, participants will gain the knowledge and tools required to thrive in the era of digital geoscience.

WHO SHOULD ATTEND?

This course is intended for petroleum geoscientists, reservoir engineers, data scientists, IT professionals in the energy sector, exploration managers and decision makers seeking to leverage AI and data-driven solutions for improved exploration and production efficiency. It is also beneficial for early to mid-career professionals aiming to enhance their digital competencies within the petroleum industry.

COURSE OUTCOMES

Delegates will gain the skills and knowledge to:

- Understand the role of AI, machine learning, and big data in modern petroleum geoscience.
- Apply cloud-based solutions for scalable data storage, processing, and collaborative workflows.
- Integrate geoscience expertise with data science tools to generate actionable insights.
- Evaluate case studies demonstrating successful digital transformation in upstream operations.
- Develop strategies for adopting next-gen geoscience solutions to optimize exploration and production.
- Leverage predictive analytics to enhance subsurface modeling and resource evaluation.

KEY COURSE HIGHLIGHTS

At the end of the course, you will understand;

- AI applications in predicting rock properties and fluid behavior in subsurface formations.
- How AI improves interpretation of seismic and well data for better reservoir insights.
- Leveraging big data analytics to uncover patterns in complex geoscience datasets.
- Using cloud computing for scalable processing and collaboration in geoscience projects.
- Enhanced risk identification and decision-making through data-driven models.
- Integration of AI workflows to accelerate exploration and development activities efficiently.

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