AI APPLICATIONS IN UPSTREAM PRODUCTION OPTIMIZATION

Start Date:	09/02/2026	**End Date:**	13/02/2206
Categories:	Artificial Intelligence & En	**Venues:**	Madrid
Formats:	In Person	**Instructors:**	

OVERVIEW

This course focuses on the use of AI in enhancing upstream oil and gas production. Topics include reservoir modeling, flow rate optimization, production forecasting, and anomaly detection using AI and machine learning.

OBJECTIVES

• Apply AI to reservoir and production optimization. • Use real-time data to forecast production and detect anomalies. • Analyze flow dynamics with ML models. • Optimize artificial lift systems with predictive insights. • Improve decision-making with intelligent dashboards.

COURSE OUTLINE

• Introduction to AI in Upstream Operations • Data Sources: Sensors, SCADA, Logs • Machine Learning Models for Production • Real-Time Monitoring and Optimization • Artificial Lift Performance and Prediction • Case Studies in Reservoir and Well Management

TARGET AUDIENCE

Production engineers, reservoir engineers, data scientists, and digitalization managers.

METHODOLOGY

Hands-on AI tools, simulation models, well performance dashboards, and group projects.

CONCLUSION

Participants will be equipped to deploy AI for production gains, cost savings, and smarter upstream operations.

DAILY AGENDA

Day 1: AI in Upstream Overview

Value streams and data infrastructure for AI.

Day 2: Production Forecasting

Data models for predicting well output.

Day 3: Lift Optimization

AI tools for ESP, gas lift, and beam pump systems.

Day 4: Anomaly Detection

Detecting underperformance, leaks, and sensor issues.

Day 5: Smart Ops Strategy

Project planning and AI integration roadmap.

For more information, please contact us:

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