

Petroleum Data Analytics & Digital Oilfield Management

Barcelona (Spain)

5 - 9 October 2026

UK Training

PARTNER



Petroleum Data Analytics & Digital Oilfield Management

Code: OG32 From: 5 - 9 October 2026 City: Barcelona (Spain) Fees: 5900 Pound

Introduction

The oil and gas industry is undergoing a major transformation driven by advancements in data analytics and digital oilfield management.

These technologies enable organizations to optimize exploration, production, and maintenance processes by collecting and analyzing massive amounts of real-time data.

This course is designed for professionals who want to master the tools and methodologies that enhance operational efficiency, reduce costs, and enable data-driven decision-making.

Course Objectives

- Understand the core concepts of petroleum data analytics.
- Explore the components and architecture of digital oilfield management systems.
- Apply predictive analytics to optimize production and minimize downtime.
- Integrate geological, engineering, and production data into a unified platform.
- Utilize artificial intelligence AI and machine learning ML to analyze well data.
- Develop interactive dashboards for real-time performance monitoring.
- Learn from real-world case studies of successful digital oilfield applications.

Course Outlines

Day 1: Introduction to Petroleum Data Analytics

- Overview of data analytics and its role in oil and gas.
- Types of industry data geological, engineering, production.
- Data acquisition infrastructure and quality standards.
- Basic data analysis tools and software.
- Practical exercise: Exploring a sample production dataset.

Day 2: Digital Oilfield Management Fundamentals

- Defining the digital oilfield concept.
- Key components of a digital oilfield system.
- Data integration between field systems and office platforms.
- Remote monitoring and control technologies.
- Practical exercise: Designing a mini digital oilfield model.

Day 3: Predictive Analytics and Performance Optimization

- Descriptive, diagnostic, and predictive analytics.
- Predictive modeling for production forecasting.
- Early fault detection through data analysis.



- Optimizing preventive maintenance programs.
- Practical exercise: Building a production prediction model.

Day 4: AI and Machine Learning in Digital Oilfields

- Introduction to AI and ML concepts.
- AI applications for oil production optimization.
- Computer vision for geological and seismic image analysis.
- Integrating ML models into digital oilfield systems.
- Practical exercise: Well data analysis using ML algorithms.

Day 5: Dashboard Development & Case Studies

- Designing interactive dashboards for oilfield operations.
- Key performance indicators KPIs for digital oilfields.
- Real-time production monitoring and visualization.
- Case studies of successful petroleum data analytics projects.
- Final project: Building a complete digital oilfield dashboard.

Why Attend this Course: Wins & Losses!

- Gain advanced skills in petroleum data analytics.
- Learn cutting-edge digital oilfield technologies.
- Improve data-driven decision-making capabilities.
- Harness AI and ML to enhance production.
- Boost operational efficiency and reduce costs.
- Tailor solutions to specific operational challenges.
- Access real-world case studies for practical insights.
- Earn a recognized professional certification.

Conclusion

The Petroleum Data Analytics & Digital Oilfield Management course offers a comprehensive approach to merging field expertise with advanced digital tools.

By combining theoretical knowledge with hands-on practice, participants will gain the skills needed to design and implement smart solutions that improve production efficiency, enhance maintenance strategies, and secure a competitive advantage for their organizations in a data-driven future.



Blackbird Training Clients



MANNAI Trading
Company WLL,
Qatar



Alumina Corporation
Guinea



Booking.com
Netherlands



Oxfam GB International
Organization,
Yemen



Capital Markets
Authority,
Kuwait



Waltersmith Petroman Oil Limited
Nigeria



Qatar National Bank
(QNB),
Qatar



Qatar Foundation,
Qatar



AFRICAN UNION ADVISORY
BOARD ON CORRUPTION,
Tanzania



KFAS
Kuwait



Reserve Bank of
Malawi,
Malawi



Central Bank of Nigeria
Nigeria



Ministry of Interior,
KSA



Mabruk Oil Company
Libya



Saudi Electricity
Company,
KSA



BADAN PENGELOLA
KEUANGAN Haji,
Indonesia



NATO
Italy



ENI CORPORATE
UNIVERSITY,
Italy



Gulf Bank
Kuwait



General Organization for
Social Insurance
KSA



Defence Space Administration
Nigeria



National Industries
Group (Holding),
Kuwait



Hamad Medical
Corporation,
Qatar



USAID
Pakistan



STC Solutions,
KSA



North Oil company,



EKO Electricity



Oman Broadband



UNITED NATIONS
UN.



Authority for

UK Training
PARTNER



Blackbird Training Categories

Management & Admin

Entertainment & Leisure
Professional Skills
Finance, Accounting, Budgeting
Media & Public Relations
Project Management
Human Resources
Audit & Quality Assurance
Marketing, Sales, Customer Service
Secretary & Admin
Supply Chain & Logistics
Management & Leadership
Agile and Elevation

Technical Courses

Artificial Intelligence (AI)
Sustainability, ESG & Corporate Responsibility
Advanced Courses
Hospital Management
Public Sector
Special Workshops
Oil & Gas Engineering
Telecom Engineering
IT & IT Engineering
Health & Safety
Law and Contract Management
Customs & Safety
Aviation
C-Suite Training

