

# DIGITAL DRILLING IN THE OIL & GAS INDUSTRY FOR MANAGERS

*“Accelerate drilling performance through digital solutions, real-time insights, and smarter decision-making.”*

## Schedule

| Venue    | Fees                  |
|----------|-----------------------|
| In-House | ASK FOR THE QUOTATION |

## Introduction

As the oil & gas industry moves toward efficiency, safety, and sustainability, digital drilling technologies are transforming how wells are planned, drilled, and optimized. This course equips managers with a strategic understanding of digital drilling systems, including real-time data monitoring, predictive analytics, rig automation, digital twins, and AI-driven drilling optimization. Participants will gain the knowledge and tools to evaluate digital solutions, lead innovation, and align drilling strategies with performance targets.

## Objectives

By the end of the course, participants will be able to:

- Understand the fundamentals of digital drilling technologies
- Interpret real-time drilling data and key performance indicators (KPIs)
- Evaluate the impact of digital technologies on well planning and execution
- Align digital drilling tools with operational and safety objectives
- Apply automation and analytics to optimize well delivery
- Integrate digital workflows into drilling operations management

Why Attend

With increased pressure to reduce non-productive time (NPT), improve wellbore placement, and enhance HSE outcomes, digital drilling presents a powerful opportunity to reimagine traditional approaches.

Target Audience

- Drilling & Well Operations Managers
- Rig Supervisors and Superintendents
- Drilling Engineers and Technical Specialists
- Digital Transformation Leaders
- Asset Managers and Field Development Teams
- HSE and Operations Support Managers

Individual Benefits

- Gain fluency in digital drilling platforms and systems
- Enhance collaboration between operations and digital teams
- Understand vendor solutions and evaluate return on investment
- Improve real-time decision-making during drilling operations

Organizational Benefits

- Reduce operational risks and drilling costs
- Enable faster and smarter drilling campaigns
- Integrate digital workflows across planning and execution
- Support the digital transformation of upstream operations

Instructional Methodology

- Technical lectures with case studies from offshore/onshore operations
- Live data interpretation and simulation sessions
- Group exercises for digital decision-making
- Industry tool demos (digital twins, predictive analytics, drilling simulators)
- Strategy mapping workshops tailored to participant organizations

Course Outline

DETAILED 5-DAY COURSE OUTLINE (CUSTOMIZABLE)

Training Hours: 7:30 AM – 3:30 PM

Daily Format: 3–4 Learning Modules | Coffee Breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 – 02:00

Day 1: Foundations of Digital Drilling

- Module 1: Evolution of Drilling – From Manual to Digital (07:30 – 09:30)
- Module 2: Core Concepts in Digital Drilling Systems (09:45 – 11:15)
- Module 3: Real-Time Operations Centers & Data Integration (11:30 – 01:00)
- Module 4: Case Review – Digitizing a Drilling Campaign (02:00 – 03:30)

Day 2: Digital Technologies in Drilling

- Module 1: Drilling Automation & Control Systems (07:30 – 09:30)
- Module 2: Downhole Data, Sensors & MWD/LWD (09:45 – 11:15)
- Module 3: Predictive Analytics and Machine Learning Applications (11:30 – 01:00)
- Module 4: Workshop: Mapping Digital Tools to Drilling Phases (02:00 – 03:30)

Day 3: Operational Optimization Using Digital Tools

- Module 1: Well Planning with Digital Twins and Simulators (07:30 – 09:30)
- Module 2: Drilling Performance KPIs and Dashboards (09:45 – 11:15)
- Module 3: Early Kick Detection, Stuck Pipe, and Anomaly Prediction (11:30 – 01:00)
- Module 4: Simulation: Real-Time Drilling Optimization Scenario (02:00 – 03:30)

Day 4: Strategic Decision-Making & Risk Management

- Module 1: Data-Driven Risk Mitigation Strategies (07:30 – 09:30)
- Module 2: Vendor Technologies and Platform Comparison (09:45 – 11:15)
- Module 3: Integrating HSE and Digital Safety Monitoring (11:30 – 01:00)
- Module 4: Group Exercise: Building a Digital Drilling Strategy (02:00 – 03:30)

Day 5: Implementation Planning and ROI

- Module 1: Barriers to Digital Adoption in Drilling (07:30 – 09:30)
- Module 2: Building the Business Case for Digital Drilling (09:45 – 11:15)
- Module 3: Roadmap Development – Technology, People, Process (11:30 – 01:00)
- Module 4: Final Presentations – Team Strategy Reports & Feedback (02:00 – 03:30)

Certification

Participants will receive a **Certificate of Completion: Digital Drilling in the Oil & Gas Industry for Managers**, demonstrating their ability to lead digital drilling initiatives with strategic insight and operational readiness.

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