

INTERNET OF THINGS (IOT) IN THE OIL & GAS INDUSTRY FOR MANAGERS

“Integrate connected technologies to drive safety, efficiency, and cost savings across your oil & gas operations.”

Schedule

Venue	Fees
In-House	ASK FOR THE QUOTATION

► **Available delivery methods:** In-House Training

Introduction

This 5-day course is designed to empower managers in the oil & gas sector with the strategic and practical knowledge to leverage IoT technologies for operational excellence. It provides a deep dive into how sensors, automation, edge devices, and data platforms are transforming exploration, production, refining, and logistics. Participants will develop actionable frameworks to implement IoT solutions that improve uptime, reduce risks, and enable smarter decision-making.

Objectives

- Participants will:
- Understand the fundamentals and architecture of industrial IoT (IIoT)
 - Learn how IoT integrates with SCADA, DCS, cloud, and analytics platforms
 - Evaluate use cases in upstream, midstream, and downstream operations
 - Identify cybersecurity risks and mitigation strategies
 - Develop an IoT roadmap aligned with business KPIs and compliance standards

Why Attend

With aging assets, high-risk environments, and increasing pressure to reduce operational costs, oil & gas companies are turning to IoT for visibility, automation, and optimization. This course gives you the knowledge to lead that change and achieve measurable ROI from digital investments.

Target Audience

- Operations & Maintenance Managers
- Asset Managers & Field Supervisors
- Digital Transformation Leaders
- Instrumentation & Automation Engineers
- HSE & Risk Managers
- IT/OT Integration Specialists

Individual Benefits

- Gain clarity on how IoT can solve complex field and plant problems
- Acquire tools to evaluate and manage vendor solutions
- Lead digital transformation initiatives with confidence

Organizational Benefits

- Improve operational efficiency and asset reliability
- Enhance worker safety through real-time monitoring
- Enable remote diagnostics and reduce unplanned downtime
- Ensure data-driven compliance with environmental and safety standards

Instructional Methodology

- Expert-led presentations with case studies from leading oil & gas firms
- Real-time sensor and dashboard demos
- Interactive strategy workshops and group discussions
- Custom project work based on actual industry problems

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 IoT in Oil & Gas**
- Module 1:** Introduction to IoT, IIoT & Smart Industry Concepts (07:30 – 09:30)
 - Module 2:** IoT Devices, Sensors & Architecture (09:45 – 11:15)
 - Module 3:** Connectivity Protocols & Data Transmission (11:30 – 01:00)
 - Module 4:** Oil & Gas Case Studies: IoT Success Stories (02:00 – 03:30)
- Day 2: Field-Level Applications and Device Integration**
- Module 1:** Sensor Networks for Drilling & Production Operations (07:30 – 09:30)
 - Module 2:** IoT in Midstream – Pipeline & Transport Monitoring (09:45 – 11:15)
 - Module 3:** Refinery & Process Plant Automation via IoT (11:30 – 01:00)
 - Module 4:** Hands-on: Designing a Sensor Network for Field Optimization (02:00 – 03:30)
- Day 3: Data Management, Analytics, and Decision Support**
- Module 1:** Edge vs Cloud Processing in Remote Environments (07:30 – 09:30)
 - Module 2:** Real-Time Data Dashboards & Visualization Tools (09:45 – 11:15)
 - Module 3:** Predictive Maintenance & Condition Monitoring (11:30 – 01:00)
 - Module 4:** Workshop: Building a Real-Time Operations Center Dashboard (02:00 – 03:30)
- Day 4: Cybersecurity, Compliance, and Safety Monitoring**
- Module 1:** Cybersecurity for IoT Devices & Networks (07:30 – 09:30)
 - Module 2:** Regulatory Standards (API, ISO, OSHA) and IoT Implications (09:45 – 11:15)
 - Module 3:** Remote Safety Surveillance & Incident Detection (11:30 – 01:00)
 - Module 4:** Group Exercise: Risk Mapping and Security Protocols (02:00 – 03:30)
- Day 5: Strategy, ROI, and Roadmap Development**
- Module 1:** Measuring ROI of IoT Deployments (07:30 – 09:30)
 - Module 2:** Change Management and Workforce Training (09:45 – 11:15)
 - Module 3:** Developing an IoT Implementation Strategy (11:30 – 01:00)
 - Module 4:** Final Presentations – IoT Strategy Pitch by Participants (02:00 – 03:30)

Certification

Participants who complete the course will receive a **Certificate of Completion: Internet of Things (IoT) in the Oil & Gas Industry for Managers**, confirming their capability to lead IoT initiatives and integration across upstream and downstream assets.

Why Choose MAWA Events

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