Email: info@gatewayconsulting.com | Phone: +96522968641
https://gatewayconsulting.com

ADVANCED PIPELINE OPERATIONS & MONITORING SYSTEMS

Start Date:	11/01/2027	**End Date:**	15/01/2027
Categories:	Oil & Gas	**Venues:**	Singapore
Formats:	In Person	**Instructors:**	

OVERVIEW

This advanced course focuses on enhancing pipeline operation efficiency and integrity through cutting-edge monitoring systems and automation. It equips participants with the knowledge to manage risks, optimize flow, and implement real-time monitoring for operational safety and sustainability.

OBJECTIVES

By the end of this course, participants will be able to: • Understand advanced pipeline systems, flow dynamics, and automation controls. • Apply real-time monitoring technologies for leak detection and integrity management. • Use SCADA, fiber optics, and AI-based tools for operational decision-making. • Mitigate operational risks and improve incident response strategies. • Optimize pipeline performance for sustainability, safety, and cost-efficiency.

COURSE OUTLINE

1. Pipeline Flow Dynamics and Automation Controls 2. Leak Detection Technologies and Integrity Management 3. SCADA, IoT, and Remote Monitoring Tools 4. Emergency Response Planning and Risk Mitigation 5. Optimization Strategies and Predictive Analytics

TARGET AUDIENCE

Pipeline engineers, operations supervisors, control room technicians, and HSE professionals involved in pipeline infrastructure and safety.

METHODOLOGY

Live monitoring system demos, case simulations, failure analysis workshops, and optimization labs.

CONCLUSION

Participants will gain advanced operational knowledge and hands-on experience with modern monitoring systems to ensure pipeline integrity, responsiveness, and performance optimization.

DAILY AGENDA

Day 1: Pipeline Systems and Control Fundamentals

Overview of pipeline types, flow dynamics, and automation architectures.

Day 2: Monitoring Systems and Leak Detection

Deploying sensors, acoustic tools, and fiber optics for integrity monitoring.

Day 3: SCADA and IoT for Pipeline Operations

Implementing supervisory control and real-time data systems.

Day 4: Emergency Response and Incident Mitigation

Scenario planning, failure response drills, and regulatory compliance.

Day 5: Performance Optimization and Predictive Tools

Enhancing throughput, reliability, and cost efficiency using analytics.

For more information, please contact us:
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