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CONDITION MONITORING & PREDICTIVE MAINTENANCE TECHNIQUES

Start Date:	30/11/2026	**End Date:**	04/12/2026
Categories:	Oil & Gas	**Venues:**	Seoul
Formats:	In Person	**Instructors:**	

OVERVIEW

This course teaches how to implement condition monitoring and predictive maintenance using technologies like vibration analysis, infrared thermography, oil analysis, and advanced diagnostics to anticipate failures and plan interventions.

OBJECTIVES

By the end of this course, participants will be able to: • Identify key condition monitoring techniques and their applications. • Analyze vibration, thermal, and oil sample data for early fault detection. • Deploy predictive maintenance strategies aligned with equipment behavior. • Integrate monitoring systems into maintenance programs and CMMS. • Improve maintenance planning and reduce unplanned downtime.

COURSE OUTLINE

1. Overview of Condition Monitoring and Predictive Maintenance 2. Vibration Analysis and Rotating Equipment Diagnostics 3. Infrared Thermography and Electrical Inspections 4. Oil Analysis, Ultrasonic Testing, and Advanced Techniques 5. Data Integration, Reporting, and Action Planning

TARGET AUDIENCE

Predictive maintenance engineers, reliability specialists, technicians, and operations staff seeking to reduce breakdowns and enhance equipment performance.

METHODOLOGY

Demo-based learning, diagnostic labs, hands-on analysis, and report interpretation exercises.

CONCLUSION

Participants will acquire hands-on skills to diagnose faults early, plan predictive interventions, and improve asset reliability through data-driven maintenance.

DAILY AGENDA

Day 1: Intro to Predictive Maintenance Tools

Fundamentals of PdM, ROI, and core monitoring techniques.

Day 2: Vibration Analysis and Diagnostics

Monitoring and diagnosing rotating machinery faults using vibration data.

Day 3: Thermography and Visual Inspection

Detecting electrical and thermal issues through infrared techniques.

Day 4: Oil and Ultrasonic Testing

Analyzing wear particles and ultrasonic signals for degradation signs.

Day 5: Data-Driven Maintenance and Planning

Integrating condition data into scheduling and work prioritization.

For more information, please contact us:
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