GLOBAL TRAINING INSTITUTE

Rotating Equipment: Strategies for Reliability Optimization



GTI - Coordination Office and International Relations (Accredited Programs)

Course Description

The Rotating Equipment: Strategies for Reliability Optimization focuses on the crucial role of pumps, compressors, motors, steam, and gas turbines in the oil and gas industry. Participants will learn to select the right equipment and apply effective control and condition monitoring methods to minimize downtime and reduce maintenance costs. The course covers the design, operation, and maintenance of rotating machinery, emphasizing the latest protection methods and modern maintenance strategies. Through workshops and real-world problem-solving, attendees will gain practical insights applicable to their operations.

Who Should Attend

This course is suitable for:

- Operation, Technical Service, and Maintenance Professionals
- Technical Professionals responsible for Equipment Maintenance and Repair
- Professionals involved in Inspection, Maintenance, and Repair
- Technical Professionals handling Risk Assessment and Integrity Analysis
- Technicians involved in Regulating, Metering, and Measurement

Course Objectives

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

- Apply industry inspection standards and best practices in their organizations.
- Optimize design and operational methods for rotating equipment.
- Implement diagnostics and inspection procedures for effective monitoring.
- Analyze results from condition monitoring and vibration control techniques.
- Plan and manage maintenance and repair activities for rotating equipment.
- Understand common failure modes of various rotating machinery.
- Enhance energy efficiency in rotating equipment operations.

Course Content

Types of Rotating Equipment

- Overview of equipment used in the oil and gas industry.
- Specific focus on motors, pumps, compressors, steam turbines, and gas turbines.

Design and Operation Principles

- Fundamental design characteristics and operational principles of each equipment type.
- Common failure modes and troubleshooting techniques.

Condition Monitoring and Diagnostics

- Techniques for condition monitoring and vibration analysis.
- Application of diagnostic tools to assess equipment health.

Maintenance Strategies

- Modern maintenance strategies for rotating equipment.
- Planning and executing effective maintenance and repair activities.

Energy Consumption Optimization

- Methods for optimizing energy consumption in rotating equipment.
- Identifying and implementing energy-saving opportunities.