



London TDM

# Mechanical and Electrical Engineering Training Courses

**Course Venue:** United Arab Emirates - Dubai

**Course Date:** From 16 November 2025 To 20 November 2025

**Course Place:** Downtown Dubai

**Course Fees:** 5,000 USD

## Introduction

This professional course on Rotating Equipment Maintenance and Reliability is designed to provide participants with an in-depth understanding of the principles and practices essential for maintaining and ensuring the reliability of rotating equipment. Through this 5-day program, attendees will gain the knowledge and skills necessary to improve equipment performance, reduce downtime, and enhance operational efficiency.

## Objectives

- Understand the fundamentals of rotating equipment and its components.
- Identify common failure modes and root causes in rotating machinery.
- Develop effective maintenance strategies to enhance reliability.
- Apply diagnostic tools and techniques for condition monitoring.
- Implement best practices for improving equipment performance and uptime.

## Course Outlines

### Day 1: Introduction to Rotating Equipment

- Overview of rotating equipment types and applications
- Key components and their functions
- Basic principles of operation
- Introduction to reliability and maintenance concepts
- Safety considerations and best practices

### Day 2: Failure Modes and Causes

- Common failure modes in rotating equipment
- Root cause analysis techniques
- Case studies of failure incidents
- Impact of improper maintenance on equipment reliability
- Strategies for mitigating failure risks

### Day 3: Maintenance Strategies

- Preventive maintenance practices
- Predictive maintenance techniques
- Condition-based maintenance approaches
- Developing a maintenance schedule
- Cost-benefit analysis of maintenance strategies

### Day 4: Diagnostic Tools and Techniques

- Introduction to condition monitoring
- Vibration analysis fundamentals
- Thermography and ultrasonics
- Oil analysis and its applications
- Selecting the right diagnostic tools

## **Day 5: Improving Equipment Performance**

- Best practices for equipment reliability improvement
- Roles and responsibilities in maintenance
- Implementing a continuous improvement culture
- Case studies on reliability improvement
- Course review and action plan development