

CONDITION MONITORING OF POWER SYSTEM EQUIPMENT

“Enhance Reliability and Prevent Failures Through Advanced Condition Monitoring Techniques for Power Systems.”

Schedule

Venue (In-house)	Fees
At Your Organization Premises	Ask For The Quotation

► Available delivery methods: In-House Training

Introduction

The reliability and performance of power system equipment—such as transformers, generators, motors, and switchgear—are critical for uninterrupted electricity supply. Condition monitoring allows early detection of potential failures, reducing downtime, maintenance costs, and operational risks.

The Condition Monitoring of Power System Equipment course equips engineers, technicians, and maintenance personnel with the knowledge and practical skills to implement effective monitoring programs. Participants will learn advanced techniques including vibration analysis, partial discharge testing, thermal imaging, oil analysis, and online monitoring systems to ensure equipment health and optimize maintenance strategies.

Objectives

- By the end of this course, participants will be able to:
- Understand the principles and importance of condition monitoring in power systems.
 - Apply techniques such as vibration analysis, thermal imaging, and partial discharge detection.
 - Monitor transformers, generators, motors, and switchgear for early fault detection.
 - Analyze condition monitoring data to assess equipment health.
 - Implement predictive maintenance strategies based on monitoring results.
 - Ensure compliance with industry standards and best practices.
 - Optimize maintenance schedules and extend the lifespan of critical equipment.
 - Reduce downtime and improve reliability of power systems.

Why Attend

This course is essential for power system engineers, maintenance personnel, and technical managers responsible for the operational reliability of electrical equipment. Participants will gain hands-on skills in monitoring, data interpretation, and predictive maintenance, enabling them to prevent failures and ensure uninterrupted power supply.

Target Audience

This course is suitable for:

- Electrical Engineers and Maintenance Engineers
- Power System Technicians and Operators
- Reliability and Asset Management Professionals
- Plant Managers and Supervisors in Power Generation/Distribution
- Industrial and Utility Maintenance Teams
- Graduate Students in Electrical or Power Systems Engineering

Individual Benefits

- Develop practical expertise in condition monitoring techniques.
- Gain confidence in fault detection and predictive maintenance.
- Improve problem-solving and analytical skills for equipment reliability.
- Enhance professional value and career growth opportunities.
- Learn to implement monitoring programs for various power system equipment.
- Reduce operational risks and improve safety awareness.

Organizational Benefits

- Increase reliability and operational availability of power system equipment.
- Reduce maintenance costs and minimize unexpected failures.
- Extend the operational lifespan of transformers, generators, and motors.
- Ensure compliance with international standards and regulatory requirements.
- Improve maintenance planning and resource allocation.
- Build internal expertise in predictive and condition-based maintenance.

Instructional Methodology

The training employs a practical, hands-on approach through:

- Interactive lectures and demonstrations of monitoring tools
- Case studies of real-world power system condition monitoring
- Step-by-step exercises on data collection, analysis, and fault diagnosis
- Group workshops and collaborative problem-solving sessions
- Assignments focused on predictive maintenance and reliability improvement
- Continuous feedback and Q&A sessions for skill reinforcement

