

## DIESEL POWER GENERATING MAINTENANCE AND TROUBLESHOOTING

*“Ensure Reliable Power Generation through Effective Maintenance and Troubleshooting of Diesel Generator Systems.”*

### Schedule

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

► **Available delivery methods:** In-House Training

### Introduction

Diesel power generators are critical assets in industrial, commercial, and utility operations, providing reliable backup and prime power supply. However, maintaining efficiency, performance, and reliability requires a solid understanding of diesel engine systems, control mechanisms, and preventive maintenance procedures.

The Diesel Power Generating Maintenance and Troubleshooting course provides participants with comprehensive knowledge and practical skills to maintain, operate, and diagnose diesel generator systems effectively. It covers key aspects such as engine components, electrical systems, load testing, fuel systems, and advanced troubleshooting methods to ensure optimal generator performance and reduce downtime.

### Objectives

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

- Understand the operating principles of diesel power generation systems.
- Identify key components and functions of diesel engines and alternators.
- Implement effective preventive and corrective maintenance programs.
- Diagnose and troubleshoot common mechanical and electrical faults.
- Analyze performance data to optimize generator efficiency and reliability.
- Conduct safe testing, load management, and system inspections.
- Manage fuel, lubrication, and cooling systems for prolonged equipment life.
- Apply industry best practices for generator maintenance and performance monitoring.

## Why Attend

Reliability in power generation is non-negotiable in critical operations. This course equips technicians, engineers, and maintenance professionals with practical, hands-on knowledge to ensure uninterrupted power supply, minimize failures, and extend generator lifespan through expert-level maintenance and troubleshooting skills.

## Target Audience

This course is ideal for:

- Maintenance Engineers and Technicians
- Electrical and Mechanical Engineers
- Power Plant Operators and Supervisors
- Facility and Operations Managers
- Technical Support Personnel
- Anyone responsible for generator operation, maintenance, or inspection

## Individual Benefits

- Gain in-depth understanding of diesel generator systems and operations.
- Develop diagnostic and troubleshooting expertise for real-world scenarios.
- Learn to identify potential failures before they occur.
- Improve confidence in handling maintenance and repair tasks safely.
- Enhance technical skills to boost career growth in power system maintenance.
- Reduce dependency on external service providers through in-house capability.

## Organizational Benefits

- Increase reliability and availability of power generation systems.
- Reduce downtime and operational losses due to generator failures.
- Lower maintenance and repair costs through proactive maintenance.
- Extend the life cycle of generator assets.
- Improve compliance with operational and safety standards.
- Enhance technical competency and self-reliance of maintenance teams.

## Instructional Methodology

The course utilizes a blended and highly practical learning approach through:

- Real-world case studies of generator failures and solutions
- Hands-on demonstrations and equipment inspection sessions
- Troubleshooting workshops using diagnostic tools
- Interactive technical lectures and visual presentations
- Preventive maintenance planning exercises
- Group discussions and Q&A on field challenges
- Performance analysis simulations and testing exercises

## Course Outline

- Module 1: Fundamentals of Diesel Power Generation Systems
- Module 2: Diesel Engine Components and Working Principles
- Module 3: Alternator Operation and Electrical System Overview
- Module 4: Fuel, Lubrication, and Cooling Systems Maintenance
- Module 5: Generator Control Panels and Load Management
- Module 6: Preventive and Predictive Maintenance Practices
- Module 7: Common Faults and Troubleshooting Techniques
- Module 8: Testing, Inspection, and Performance Analysis
- Module 9: Safety Procedures and Maintenance Documentation
- Module 10: Case Studies and Practical Troubleshooting Workshop

## Certification

Upon successful completion, participants will receive a Certificate in Diesel Power Generating Maintenance and Troubleshooting, recognizing their proficiency in maintaining and diagnosing diesel generator systems for reliable, efficient power generation.

## Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **Client-Focused Solutions:** Customized programs designed to achieve your organisation's unique goals.

### In-House / Customized Training

Interested in running this course for your team?

Please contact us:

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