



Function and Setting of Generator

Course Introduction:

This course will provide participants with a comprehensive understanding of generator systems, their operational functions, and the intricacies involved in their setup and configuration. Generators play a crucial role in various applications, from industrial operations to emergency power supply, making it imperative for professionals to have a deep understanding of their functionality. This five-day course will cover the fundamental principles of generator operation, the various types of generators, and the key settings required for optimal performance.

By the end of the training, attendees will have acquired the skills necessary to effectively set up, calibrate, and maintain generators, ensuring they operate efficiently and reliably in various environments. The course is structured to encourage hands-on experience, allowing participants to apply their knowledge in real-world scenarios and enhance their troubleshooting capabilities.

Course Objectives:

By the end of the program, participants will be able to:

- Understand the various types of generators and their operational principles.
- Analyze generator specifications and perform load calculations.
- Set up and configure generators for optimal performance in different applications.
- Conduct calibration and maintenance procedures to ensure reliability.
- Develop troubleshooting skills for diagnosing and resolving generator issues.

Who Should Attend?

This course is intended for Electrical engineers and technicians involved in generator operations, Maintenance personnel responsible for generator upkeep and Project managers overseeing generator installation and deployment.

Course Outline:

Day 1: Introduction to Generators

- Overview of generator types: diesel, gas, and renewable energy generators
- Basic principles of electricity generation and power fundamentals
- Key components of a generator system: engine, alternator, control panel, and fuel system
- Safety considerations when working with generators

Day 2: Generator Functions and Specifications

- Understanding generator functions: starting, running, and stopping operations
- Analyzing generator specifications: power rating, voltage, frequency, and phase
- Importance of load calculations and power management

Day 3: Setting Up Generators

- Site selection and preparation for generator installation
- Understanding generator settings: voltage regulation, frequency adjustment, and load sharing
- Step-by-step guide to installing and connecting a generator to a power source

Day 4: Calibration and Maintenance

- Importance of regular calibration and maintenance for generator longevity
- Routine checks and troubleshooting common generator issues
- Developing a maintenance schedule and documentation practices

Day 5: Advanced Topics and Troubleshooting

- Exploring advanced generator technologies and innovations
- Troubleshooting techniques for generator failures and performance issues
- Case studies on real-world generator challenges and solutions
- Final assessment and group discussions on best practices

Course Methodology:

A variety of methodologies will be used during the course that includes:

- (30%) Based on Case Studies
- (30%) Techniques
- (30%) Role Play
- (10%) Concepts
- Pre-test and Post-test
- Variety of Learning Methods
- Lectures
- Case Studies and Self Questionnaires
- Group Work

Course Fees:

To be advice as per course location. This rate includes participant's manual, Hands-Outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Course Certificate:

International Center for Training & Development (ICTD) will award an internationally recognized certificate(s) for each delegate on completion of training.

Course Timings:

Daily Course Timings:

08:00 - 08:20	Morning Coffee / Tea
08:20 - 10:00	First Session
10:00 - 10:20	Coffee / Tea / Snacks
10:20 - 12:20	Second Session
12:20 - 13:30	Lunch Break & Prayer Break
13:30 - 15:00	Last Session

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