



ELECTRICAL WIRING

Installation & Inspection Procedure

Course Introduction:

This course is intended to promote the use of sound engineering principles in electrical wiring. It is hoped that it will alert can be encountered in designing electrical wiring systems especially for commercial buildings and to develop a concern for professional aspects of electrical wiring engineering. The course will also act as a guide through the myriad of codes, standards, and practices published by the IEEE and other professional associations and governmental bodies.

Course Objectives:

Upon the successful completion of this course, each participant will be able to understand:

- The latest requirements of the IEE Regulations and the required Electrical Design concepts.
- Working within an environment controlled by IEE Regulations.
- Understand the basis for safety and functional design.
- Inspection and testing techniques that affect the maintenance routine of an installation.
- The goals of each participant are discussed to ensure their needs are fulfilled as far as possible.
- Questions are encouraged throughout particularly at the daily wrap up sessions
- This provides opportunities for participants to discuss specific issues and if possible find appropriate solutions
- Case studies are employed to highlight particular points and appropriate video materials used to illustrate particular conditions. Understanding system design and limitations is fundamental to ensuring adequate design & specification activities are undertaken.

Who Should Attend?

The course is intended for senior technicians and engineers working in electrical wiring systems design, planning, installation, Maintenance and Performance Monitoring.

Course Outline:

Module 1

- Power Source and distribution systems
- Interrelated utility metering and billing
- Transformers Connections
- Systems Grounding
- Distribution circuit Arrangements
- Emergency and standby power systems
- Voltage regulation and power factor correction
- Power Source and distribution systems

- Interrelated utility metering and billing
- Transformers Connections

Module 2

- Systems Grounding
- Distribution circuit Arrangements
- Emergency and standby power systems
- Voltage regulation and power factor correction
- Power Distribution Apparatus
- Transformers – switchgear and circuit Breakers – Fuses
- Load transfer Devices – equipment Ratings
- Low-Voltage starters and controllers

Extended Course Outline:

Module 3

- Multiple- speed controllers
- Speed control of DC Motors
- Speed control of AC Motors
- Power system Harmonic from Adjustable speed motor control
- Services Vaults, and electrical equipment
- Wiring systems
- Cable construction
- Connectors
- Locating cable fault
- Standards

Module 4

- Cable systems
- Installation
- Terminations
- Testing
- Field Testing
- System protection and coordination
- Short-circuit calculations
- Selective coordination
- Illumination quality
- Control of lighting
- Illumination calculations

Extended Course Outline:

Module 5

- Communication and signal system (Telephone – Data – Audio – Video-Fire Alarm)
- Selection of equipment
- Lighting
- Light sources
- Lighting Maintenance
- Elevator Operation

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
- Discussion
- Presentation

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International Centre For Training & Development

Course Certificate:

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

Course Fees:

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

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

