



London TDM

# Mechanical and Electrical Engineering Training Courses

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

**Course Date:** From 19 April 2026 To 23 April 2026

**Course Place:** Downtown Dubai

**Course Fees:** 5,000 USD

## Introduction

The "Industrial Electrical Wiring Standards" course is designed to provide professionals with comprehensive knowledge and skills in industrial wiring practices. This course covers essential standards, regulations, and best practices to ensure safety, efficiency, and compliance in industrial electrical installations.

## Objectives

- Understand the principles of industrial electrical wiring.
- Familiarize with national and international wiring standards.
- Identify and apply safety protocols in industrial electrical systems.
- Learn to design and install efficient wiring systems.
- Gain practical skills through real-world case studies and exercises.

## Course Outlines

### Day 1: Introduction to Industrial Electrical Wiring

- Overview of industrial electrical systems.
- Basic electrical theory and terminologies.
- Introduction to wiring materials and tools.
- National Electrical Code (NEC) and its significance.
- Introduction to safety standards and practices.

### Day 2: Wiring Standards and Regulations

- Detailed study of NEC standards.
- Comparison of international wiring standards.
- Compliance and certification requirements.
- Overview of OSHA electrical safety regulations.
- Common violations and how to avoid them.

### Day 3: Designing Industrial Wiring Systems

- Principles of wiring system design.
- Load calculations and circuit design.
- Selection of appropriate wiring system components.
- Layout planning for efficiency and safety.
- Practical design exercises and case studies.

### Day 4: Installation Practices

- Industrial conduit, cables, and raceway installations.
- Connection techniques and terminal installations.
- Testing and troubleshooting installations.
- Ensuring compliance with installation standards.
- Hands-on installation practice sessions.

## **Day 5: Advanced Topics and Project Work**

- Innovations in industrial wiring technology.
- Energy efficiency considerations in wiring systems.
- Smart wiring systems and IoT integration.
- Group project: Designing an industrial wiring layout.
- Course review and final assessment.