



London TDM

# Mechanical and Electrical Engineering Training Courses

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

**Course Date:** From 16 November 2025 To 20 November 2025

**Course Place:** Downtown Dubai

**Course Fees:** 5,000 USD

## Introduction

The "Electrical Design Using AutoCAD" course is designed to provide professionals with comprehensive skills and knowledge to create precise electrical drawings and schematics using AutoCAD. This five-day course will guide participants through essential concepts and practices in electrical design, enabling them to enhance their productivity and accuracy in drafting and documentation.

- Understand the fundamentals of electrical design using AutoCAD.
- Develop proficiency in creating and managing electrical schematics and layouts.
- Utilize AutoCAD tools and commands effectively for electrical applications.
- Implement best practices for organizing and annotating electrical drawings.
- Enhance problem-solving skills specific to electrical design challenges.

## Course Outlines

### Day 1: Introduction to AutoCAD for Electrical Design

- Overview of AutoCAD interface and navigation
- Introduction to essential AutoCAD tools and commands
- Creating basic electrical schematic symbols
- Understanding layering and its importance in electrical drawings
- Setting up a drawing template for electrical projects

### Day 2: Advanced Sketching and Editing Techniques

- Advanced drawing techniques for complex schematics
- Editing and modifying electrical components
- Working with blocks and attributes
- Using arrays, mirror, and rotate for efficient design
- Organizing and managing drawing data

### Day 3: Creating and Managing Electrical Layouts

- Designing electrical layouts for various applications
- Incorporating lighting and power distribution plans
- Utilizing external references (Xrefs) for complex projects
- Assigning and managing layers in layout views
- Linking schematics to physical wiring connections

### Day 4: Annotation and Documentation Best Practices

- Adding text annotations and dimensions to drawings
- Creating and customizing tables for electrical schedules
- Generating and managing a bill of materials (BOM)
- Integrating AutoCAD with Microsoft Excel for data management
- Ensuring compliance with industry standards and codes

### Day 5: Practical Implementation and Project Work

- Applying learned skills in a capstone project
- Review and feedback on project work
- Troubleshooting common design issues
- Exploring additional AutoCAD resources and plugins
- Course review and next steps for professional development