London TDM

Mechanical and Electrical Engineering Training Courses

Course Venue: Malaysia - Kuala Lumpur

Course Date: From 19 April 2026 To 23 April 2026

Course Place: Royale Chullan Hotel

Course Fees: 6,000 USD

Introduction

This comprehensive 5-day course on "Electrical Load Calculation and Panel Design" is designed for professionals aiming to enhance their skills in electrical system design and load management. Participants will gain practical insights into calculating electrical loads, designing panels, and adhering to industry standards. Through a structured curriculum, this course equips attendees with the knowledge needed to design efficient and safe electrical systems.

Objectives

- Understand the fundamentals of electrical load calculation.
- Gain proficiency in designing electrical panels.
- Learn to apply industry codes and standards effectively.
- Develop skills to optimize electrical systems for energy efficiency.
- Enhance problem-solving abilities in electrical system design challenges.

Course Outlines

Day 1: Introduction to Electrical Load Calculation

- Overview of electrical load types and characteristics
- Basic principles of load calculation
- Understanding peak and demand loads
- Introduction to load analysis tools and software
- Practical exercises on simple load calculation

Day 2: Advanced Load Calculation Techniques

- Detailed methods for commercial and industrial load profiling
- Load diversity and demand factor considerations
- Calculation of emergency and standby loads
- Interactive case studies on complex load calculations
- Workshop: Advanced problem-solving in load calculations

Day 3: Panel Design Principles

- Essentials of electrical panel design and layout
- Selection of panel components and materials
- Understanding panel wiring and circuit protection
- Introduction to panel design software and tools
- Workshop: Designing a basic electrical panel

Day 4: Integrating Load Calculations into Panel Design

- Linking load calculations with panel specifications
- Optimizing panel design for efficiency and safety
- Adhering to national and international codes
- Hands-on exercises: Integrating multiple load profiles
- Case studies on innovative panel design solutions

Day 5: Practical Applications and Final Assessment

- Real-world applications of load calculation and panel design
- Troubleshooting common design and calculation errors
- Group project: Design and evaluate an electrical panel for a specific scenario
- Review of key concepts and design strategies
- Final assessment and feedback session