London TDM

Engineering and Technical Skills Training Courses

Course Venue: United Kingdom - London

Course Date: From 31 May 2026 To 04 June 2026

Course Place: London Paddington

Course Fees: 7,500 USD

Introduction

Programmable Logic Controllers (PLCs) are essential components in the automation industry, widely used for controlling machinery and processes in diverse industrial sectors. This 5-day course is designed to provide participants with a comprehensive understanding of PLC basics, including hardware configuration, programming, and troubleshooting. Participants will gain both theoretical knowledge and hands-on experience to enhance their skills in PLC applications.

- Understand the fundamental concepts of PLCs and their significance in industrial automation.
- Identify and describe the major components of a PLC system.
- Develop basic skills in PLC programming and logic design.
- Learn how to troubleshoot common PLC problems.
- Apply knowledge of PLCs to practical scenarios and case studies.

Course Outlines

Day 1: Introduction to PLCs

- Overview of industrial automation and PLCs
- History and evolution of PLC technology
- Basic PLC architecture and components
- Types and applications of PLCs in various industries
- Introduction to the PLC programming environment

Day 2: PLC Hardware Components

- Detailed study of PLC hardware components
- Power supply and I/O modules
- Central Processing Unit (CPU) functionalities
- Memory types and their significance in PLCs
- Hands-on session: Setting up a basic PLC system

Day 3: Basic PLC Programming

- Introduction to ladder logic programming
- Fundamental programming instructions and operations
- Creating and interpreting basic ladder diagrams
- Troubleshooting programming errors
- Practical exercise: Writing and testing simple PLC programs

Day 4: Advanced Programming Concepts

- Exploration of timers and counters in PLCs
- Utilizing data storage and retrieval operations
- Advanced instructions: Comparisons and arithmetic operations
- Debugging and optimizing PLC programs
- Hands-on practice: Developing complex logic solutions

Day 5: PLC Troubleshooting and Applications

- Common PLC problems and diagnostics
- Techniques for effective troubleshooting and maintenance
- Real-world case studies and applications
- Integrating PLCs with other automation systems
- Course recap and assessment