London TDM

Oil and Gas Industry Training Courses

Course Venue: Malaysia - Kuala Lumpur

Course Date: From 12 April 2026 To 16 April 2026

Course Place: Royale Chullan Hotel

Course Fees: 6,000 USD

Introduction

Supervisory Control and Data Acquisition (SCADA) systems are integral to the efficient operation and management of the oil and gas industry. This 5-day professional course is designed to equip participants with comprehensive knowledge of SCADA systems, focusing on their application in oil and gas environments. Participants will gain insights into system architecture, functionality, security, and troubleshooting, enabling them to manage and optimize SCADA systems efficiently.

- Understand the fundamentals of SCADA systems and their role in oil and gas operations.
- Gain knowledge of SCADA system architecture and components.
- Learn about data communication and network protocols used in SCADA systems.
- Explore SCADA system security challenges and solutions.
- Develop skills in troubleshooting and maintaining SCADA systems.

Course Outlines

Day 1: Introduction to SCADA Systems

- Overview of SCADA systems in oil and gas
- Historical development and evolution of SCADA
- Core components of SCADA systems
- SCADA vs. other industrial control systems
- Case studies of SCADA applications in oil and gas

Day 2: SCADA System Architecture

- Components and design of SCADA systems
- Remote Terminal Units (RTU) and Programmable Logic Controllers (PLC)
- Human-Machine Interface (HMI) design and functionality
- Communication infrastructure and network design
- Integration with other systems

Day 3: Data Communication and Network Protocols

- Communication protocols in SCADA systems
- Data acquisition and reporting
- Real-time data processing and management
- Network topologies for SCADA systems
- Challenges in data transmission and potential solutions

Day 4: SCADA System Security

- Understanding vulnerabilities in SCADA systems
- Cybersecurity threats and risks
- Strategies for SCADA security management
- Incident response and recovery planning
- Compliance with industry standards and regulations

Day 5: Troubleshooting and Maintenance

- Common issues in SCADA systems and their resolutions
- Preventive maintenance strategies
- System upgrades and migration strategies
- Training end-users and technicians
- Future trends and advancements in SCADA systems for oil and gas