

SCADA Systems and Real-Time Monitoring for Field Operations

COURSE OVERVIEW

This course provides an extensive insight of Supervisory Control and Data Acquisition (SCADA) systems and their critical role in real-time monitoring of field operations across industries such as oil and gas, power, water, and manufacturing. Participants will explore SCADA architecture, communication protocols, data acquisition methods, human-machine interfaces (HMI), and the integration of field devices with centralized control systems. Emphasis is placed on practical applications, system security, and performance optimization, equipping participants with the knowledge to design, implement, and maintain efficient SCADA solutions for operational excellence.

WHO SHOULD ATTEND?

The course is designed for engineers, technicians, operators, and IT/OT professionals involved in field operations, process automation, and industrial control systems. It is equally beneficial for managers, supervisors, and decision-makers seeking to enhance their understanding of SCADA-driven operations, as well as students and early-career professionals aspiring to build expertise in industrial automation and real-time monitoring systems.

COURSE OUTCOMES

Delegates will gain the skills and knowledge to:

- Understand SCADA system architecture and components.
- Configure and interpret real-time monitoring and data acquisition processes.
- Integrate field devices and communication protocols for seamless operations.
- Analyze, troubleshoot, and optimize SCADA systems for reliability and efficiency.
- Apply cybersecurity best practices to protect SCADA infrastructure.

KEY COURSE HIGHLIGHTS

At the end of the course, you will understand;

- Comprehensive coverage of SCADA architecture, protocols, and applications.
- Hands-on exposure to real-time monitoring tools and HMI design.
- Practical case studies from oil & gas, power, and utility sectors.
- Focus on system troubleshooting, optimization, and security.
- Industry-relevant skills to enhance operational efficiency and safety.

All our courses are dual-certificate courses. At the end of the training, the delegates will receive two certificates.

1. A GTC end-of-course certificate
2. Continuing Professional Development (CPD) Certificate of completion with earned credits awarded