TRAINING TITLE
INTEGRATING AND OPTIMIZING SCADA SYSTEMS

Training Duration
5 day

Training Venue and Dates

Ref. No. CSI062	**Integrating and Optimizing SCADA Systems**	**5**	**23-27 June 2025**	**$5,500**	**DUBAI, UAE**

In any of the 4 or 5-star hotels. The exact venue will be informed later.

Training Fees
- **$5,500 per participant for Public Training includes Materials/Handouts, tea/coffee breaks, refreshments & Lunch**

Training Certificate
Define Management Consultants Certificate of course completion will be issued to all attendees.

TRAINING DESCRIPTION
This course covers the integration, optimization, and management of SCADA (Supervisory Control and Data Acquisition) systems used in industrial and infrastructure applications. Participants will learn how to integrate SCADA systems with other technologies, optimize system performance, and ensure data integrity, security, and scalability.

TRAINING OBJECTIVES
By the end of the course, participants will be able to understand
- Understand the components and architecture of SCADA systems.
- Learn how to integrate SCADA with other industrial systems (PLC, RTU, etc.).
- Gain knowledge on optimizing SCADA system performance for efficiency and reliability.
- Explore data security measures and best practices for SCADA systems.
- Learn troubleshooting and maintenance techniques for SCADA systems.

WHO SHOULD ATTEND?
- SCADA engineers and technicians.
- Automation and control system professionals.
- IT specialists involved in industrial systems.

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- Project managers and supervisors working with SCADA applications.
- Anyone interested in SCADA system integration and optimization.

TRAINING METHODOLOGY

A highly interactive combination of lectures and discussion sessions will be managed to maximize the amount and quality of information and knowledge transfer. The sessions will start by raising the most relevant questions and motivating everybody to find the right answers. You will also be encouraged to raise your own questions and to share in the development of the right answers using your own analysis and experiences. Tests of multiple-choice type will be made available on daily basis to examine the effectiveness of delivering the course.
Very useful Course Materials will be given.

- 30% Lectures
- 30% Workshops and work presentation
- 20% Group Work& Practical Exercises
- 20% Videos& General Discussions

COURSE PROGRAM

Day 1: Introduction to SCADA Systems

- Overview of SCADA systems and their components
- SCADA architecture: Supervisory, control, and data acquisition levels
- Key technologies: PLCs, RTUs, HMIs, and communication protocols
- Applications of SCADA in industries (energy, water, manufacturing, etc.)

Day 2: SCADA System Integration

- Integration of SCADA with PLCs, RTUs, and sensors
- Communication protocols: Modbus, OPC, DNP3, and others
- Data acquisition and processing in SCADA systems
- Best practices for integrating SCADA with enterprise systems (ERP, databases)

Day 3: SCADA System Optimization

- Performance monitoring and optimization techniques
- Reducing latency and improving response times
- Optimizing data storage and retrieval for large-scale systems
- Managing system load and balancing resources

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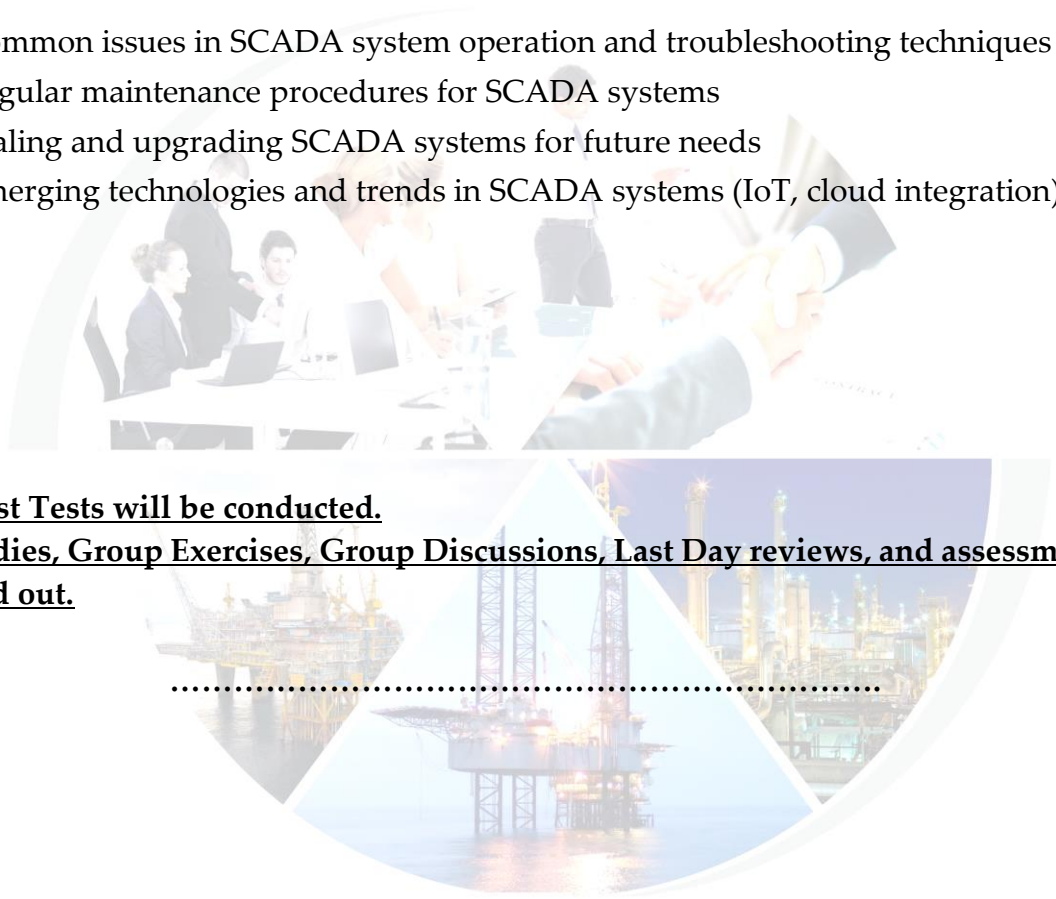
Day 4: SCADA Security and Reliability

- Security challenges and risks in SCADA systems
- Cybersecurity best practices for SCADA environments
- Ensuring data integrity and access control
- Backup, disaster recovery, and fault tolerance strategies

Day 5: Troubleshooting, Maintenance, and Future Trends

- Common issues in SCADA system operation and troubleshooting techniques
- Regular maintenance procedures for SCADA systems
- Scaling and upgrading SCADA systems for future needs
- Emerging technologies and trends in SCADA systems (IoT, cloud integration)



NOTE:
Pre-& Post Tests will be conducted.
Case Studies, Group Exercises, Group Discussions, Last Day reviews, and assessments will be carried out.

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