



*CCTV Systems: Design, Installation Principles, and
Security Management*

Cairo - InterContinental Cairo Semiramis

31-05-2026

CCTV Systems: Design, Installation Principles, and Security Management

Course code: IT398 From: 31-05-2026 Venue: Cairo - InterContinental Cairo Semiramis Course Fees: 3650 £

Introduction

This course provides a comprehensive theoretical understanding of CCTV (Closed-Circuit Television) systems, focusing on design principles, installation standards, and effective security management. It is tailored for professionals seeking to understand how CCTV systems are planned, implemented, and managed within various environments such as commercial buildings, industrial sites, and public infrastructure without involving any hands-on or practical activities.

Course Objectives

By the end of this course, participants will be able to:

- Understand the fundamentals and components of CCTV systems
- Identify different types of cameras and surveillance technologies
- Explain system design and coverage planning principles
- Understand installation standards and infrastructure requirements
- Recognize data storage, networking, and system integration concepts
- Understand CCTV monitoring and control room operations
- Identify legal, ethical, and privacy considerations
- Prepare for roles in CCTV system supervision and management

Course Methodology

- Lectures and Expert Insights: Leading industry experts will share their insights and best practices.
- Case Studies: Analyze real-world talent acquisition challenges and solutions.
- Group Discussions: Engage in meaningful discussions and share experiences with peers.
- Role-Playing and Simulations: Practice recruitment scenarios to enhance skills.

Organizational Impact

Organizations will benefit from:

- Improved understanding of surveillance system requirements
- Better planning and decision-making for CCTV investments
- Enhanced security awareness and risk management
- Stronger compliance with legal and privacy regulations
- More efficient monitoring and incident response strategies

Personal Impact

Participants will gain:

- Solid theoretical knowledge of CCTV systems and operations
- Understanding of surveillance technologies and system design

- Improved analytical skills in security planning
- Enhanced ability to communicate with technical vendors
- Career development opportunities in security and facility management

Target Audience

This course is suitable for:

- Security Officers and Supervisors
- Facility Managers
- IT and Technical Support Staff (non-specialists)
- Project Managers
- Operations and Administrative Staff
- Individuals interested in security systems and surveillance

Course Outlines

DAY 1

Introduction to CCTV Systems

- Overview of CCTV and surveillance systems
- History and evolution of CCTV technology
- Key components (cameras, DVR/NVR, monitors, cables)
- Types of CCTV systems (analog, IP, hybrid)
- Applications across industries

Day 2

CCTV Design Principles

- Camera types and features (fixed, PTZ, dome, bullet)
- Lens types and field of view concepts
- Coverage planning and positioning theory
- Lighting and environmental considerations
- Basic system design methodologies

Day 3

Installation Concepts & Infrastructure

- Theoretical installation standards and guidelines
- Cabling systems (coaxial, Ethernet, fiber)
- Power supply concepts (PoE, centralized power)
- Network fundamentals for IP CCTV systems
- Integration with other systems (access control, alarms)

Day 4

Monitoring & System Management

- Control room operations and monitoring strategies

- Recording systems and storage concepts
- Video management systems (VMS) overview
- Incident detection and reporting frameworks
- Maintenance concepts and system lifecycle

Day 5

Security, Legal & Management Frameworks

- Data protection and privacy considerations
- Legal and regulatory frameworks for surveillance
- Ethical use of CCTV systems
- Risk management and security policies
- Vendor management and system procurement
- Future trends in surveillance (AI, analytics, smart systems)