



CCTV Camera and Video Surveillance Systems Training Course

5 – 9 April 2027
Singapore

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Ref: 1657_222453 **Date:** 5 – 9 April 2027 **Location:** Singapore **Fees:** 5700 Euro

Overview

CCTV Camera and Video Surveillance Systems Training Course is a one-week foundation-to-practitioner course for surveillance technicians, IT support teams and junior installers, who leave with a Video Surveillance Design and Commissioning Pack. It addresses fragmented camera, network, recording and governance decisions through a structured system lifecycle covering requirements, design, installation, security, testing and maintenance. Agile Leaders Training Center develops practical CCTV and video surveillance systems capability.

Who Should Attend

- Security systems teams responsible for camera installation and service
- IT infrastructure teams responsible for IP connectivity and cybersecurity
- Facilities teams responsible for surveillance requirements and suppliers
- Technical support teams responsible for recording and user access
- Project teams responsible for system handover and acceptance
- Junior installers responsible for commissioning and maintenance

The course assumes participants can interpret basic electrical and network diagrams, and it leaves out covert surveillance, facial-recognition engineering and advanced penetration testing.

Departments and Industries

The course supports departments and industries that operate security video systems across occupied and operational sites.

- Security, facilities and property management
- Information technology and network operations
- Retail, hospitality and commercial property
- Transport, logistics and industrial operations
- Healthcare, education and public services

Learning Objectives

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



- Build an operational requirement and camera coverage plan
- Compare camera, lens, lighting and image-quality options
- Apply IP, PoE, VMS and recording design principles
- Evaluate cybersecurity, access and retention controls
- Use commissioning and preventive-maintenance procedures
- Diagnose camera, network, storage and video faults

Course Agenda

Day 1: Surveillance Requirements and Image Design

- IEC 62676 Operational Requirement Template
- Site Survey and Risk-Zone Map
- Camera Purpose and Coverage Matrix
- Lens, Field-of-View and Pixel-Density Worksheet
- Lighting, Dynamic Range and Image-Quality Checklist

Day 2: Camera Architecture and Network Design

- Analogue HD and IP Architecture Comparison
- Camera Form-Factor and Environmental Rating Schedule
- PoE Power Budget and Switch-Port Plan
- VLAN, Addressing and Bandwidth Design
- ONVIF Profile T Interoperability Checklist

Day 3: Video Management and Recording

- VMS Camera Discovery and Stream Configuration
- H.264 and H.265 Encoding Profile Plan
- NVR Availability and Failover Architecture
- Recording Retention and Storage Sizing Model
- Motion, Tamper, Metadata and Alarm Workflow

Day 4: Security, Privacy and Lifecycle Support

- Camera Identity, Credential and Firmware Baseline
- Encrypted Transport and Remote-Access Control
- Video User Roles and Audit-Log Matrix
- Purpose, Retention and Disclosure Governance Register
- Preventive Maintenance and Configuration Backup Plan



Day 5: Commissioning and Fault-Diagnosis Practice

- Exercise: Verify Camera Views and Image Evidence
- Exercise: Diagnose PoE and Network Connectivity Faults
- Exercise: Resolve VMS, Recording and Storage Failures
- Exercise: Complete IEC 62676 Acceptance Tests
- Capstone: Video Surveillance Design and Commissioning Pack

Practical Exercises

Suggested activities use site requirements, design calculations and simulated system evidence.

- Suggested activity: create a camera coverage and lens-selection schedule
- Suggested activity: calculate PoE, bandwidth and recording-storage requirements
- Suggested activity: harden camera, VMS and remote-access configurations
- Suggested activity: diagnose faults and complete commissioning records

FAQs

Who should take CCTV camera and video surveillance systems training, and what does it assume?

It suits technicians, IT support teams, facilities personnel and junior installers who can read basic electrical and network diagrams and need an end-to-end technical system lifecycle.

How does CCTV systems training differ from physical security management training?

CCTV systems training concentrates on cameras, image performance, networks, VMS, recording, cybersecurity, commissioning and maintenance; physical security management addresses broader security policy, people, guarding and organisational risk.

How is storage sized for an IP video surveillance system?

Storage sizing uses camera count, resolution, frame rate, codec, scene activity, recording mode, retention period, redundancy and usable disk capacity rather than camera count alone.

Why is ONVIF important in CCTV camera systems?

ONVIF profiles define interoperable functions between conformant cameras and clients, including streaming, imaging, events, metadata and PTZ capabilities, but compatibility still requires verification against the selected devices and VMS.



What cybersecurity controls protect IP surveillance cameras?

Effective controls include unique credentials, least-privilege roles, segmented networks, encrypted management, firmware governance, disabled unused services, protected remote access, logging, backups and monitored vulnerability response.

Conclusion

Participants take back a Video Surveillance Design and Commissioning Pack containing requirements, coverage, equipment, network, storage, security, privacy, testing and maintenance artefacts. The pack connects technical choices to operational evidence and ownership. It helps teams specify, install, accept and support surveillance systems consistently.