



**IT, Telecommunication &  
Networking**



**SCANDINAVIAN ACADEMY**  
Training and Development



# Course: CCTV Camera and Surveillance System

Code	City	hotel	Start	End	price	Hours
773	Doha (Qatar)	Hotel Meeting Room	2024-07-07	2024-07-11	3950 €	25

## Overview

The CCTV Training Program enhances the skills of the electronic security professional with the CCTV concepts and hands on training. With the rising demand for security in almost every building and campus, the need for CCTV and surveillance systems has grown. As a result, skilled people to develop and introduce the CCTV system are in high demand. The course cover basic principles, advanced design, and installation techniques. Hands-on installation and operation of CCTV systems for engineers and technicians interested in installation and maintenance . The course cover basic principles, advanced design, and installation techniques. Hands-on installation of CCTV systems and operational maintenance are covered for engineers and technicians involved in installation and maintenance. The learners can develop in-depth expertise and practical skills as a result of these courses. All of these courses are based on IP surveillance and incorporating analog surveillance with an IP network.

## Course Outline

- Introduction to CCTV installation
- Elements of a basic CCTV system:- Camera, monitor and digital recorder.
- Camera types and uses:- Fixed and movable, indoor and outdoor, monochrome and colour, day and night.
- Camera specifications:- Sensitivity, signal to noise ratio and resolution.
- Back Focus adjustment.
- Lens types:- Fixed and variable focal length, manual and motorised zoom.
- Use of lens calculator.
- Scene illumination:- Lighting considerations, LED's, infrared lamp maintenance and bulb life.
- Switches, Quads, Multiplexers and control systems: - Types and applications.
- Monitors and Multiple screen displays.
- Recording the footage:- Analogue and Digital video recorders.
- Time-lapse recording. Reviewing video footage.
- Cables and connectors: - Types, uses, limitations, preparation and testing.
- Introduction to Digital CCTV and IP technology.
- Connection to other security systems.
- Use of test equipments.
- Relevant standards, issues and the "Operational Requirement".
- The Analogue or Digital option? Changing technology and keeping updated.
- CCTV Video signals (H 264, Mpeg 2)
- Cabling and connectors (CAT5, CAT6 & Coax)
- Crimping BNC, CAT5 & keystone connectors
- Video transmission (analogue to digital, megapixel cameras)



- Assembling a CCTV system
- IP camera installation (IP installer for IP cameras, parameter setting)
- Introduction to lenses and lens theory (Field of view, vari focal and fixed lenses)
- Digital CCTV storage and lighting (DVR storage calculator, Illumination and camera sensitivity in CCTV)
- Network (LAN, WAN, IP)
- P2p connectivity
- CCTV site survey
- Legislation issues
- Mobile phone viewing configuration
- Configuring domain name server (DNS)
- Learning about different types of router
- What is DVR Stand Alone, How DVR Works, DVR Future
- Working Block Diagram of DVR Stand Alone device
- Digital Recording systems Block Diagram using DVR
- Various Models Showing
- Stand Alone DVR Full Configuration
- IP Camera and NVR technologies
- IP Camera and NVR Installation and Configuration
- PoE Switch , Working with Baluns .
- Best brands in India , pricing and quotation process details
- Cloud Technologies related to CCTV Camera Security
- Setting up business , technical know how , marketing ideas , business startup procedures , vendor details



**The Scandinavian Academy employs modern methods in training and skills development, enhancing the efficiency of human resource development. We follow these practices:**

- **Theoretical Lectures:**
  - We deliver knowledge through advanced presentations such as PowerPoint and visual materials, including videos and short films.
- **Scientific Assessment:**
  - We evaluate trainees skills before and after the course to ensure their progress.
- **Brainstorming and Interaction:**
  - We encourage active participation through brainstorming sessions and applying concepts through role play.
- **Practical Cases:**
  - We provide practical cases that align with the scientific content and the participants specific needs.
- **Examinations:**
  - Tests are conducted at the end of the program to assess knowledge retention.
- **Educational Materials:**
  - We provide both printed and digital scientific and practical materials to participants.
- **Attendance and Final Result Reports:**
  - We prepare detailed attendance reports for participants and offer a comprehensive program evaluation.
- **Professionals and Experts:**
  - The programs scientific content is prepared by the best professors and trainers in various fields.
- **Professional Completion Certificate:**
  - Participants receive a professional completion certificate issued by the Scandinavian Academy for Training and Development in the Kingdom of Sweden, with the option for international authentication.
- **Program Timings:**
  - Training programs are held from 10:00 AM to 2:00 PM and include buffet sessions for light meals during lectures.