



Syllabus: Certificate in CCTV Installation & Basics (CCIB)

- **Duration:** 2 Months
 - **Eligibility:** 10th Pass
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Evaluation Scheme

- **Full Marks:** 200
 - **Theory Paper:** 100 Marks
 - **Practical/Project Works:** 80 Marks
 - **Internal Assessment/Viva voce:** 20 Marks
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Course Syllabus

This program provides comprehensive hands-on training in the selection, installation, and maintenance of modern surveillance systems, covering both analog and digital technologies.

Module 1: Introduction to Surveillance Systems

- Overview of CCTV: History, evolution, and basic components.
- Camera Types: Bullet, Dome, PTZ (Pan-Tilt-Zoom), and Fish-eye cameras.
- Lens & Sensors: Understanding Focal Length, Field of View, and Night Vision (IR).

Module 2: Cabling, Connectors & Power

- Cabling: Working with Coaxial (RG59/RG6) and Networking (Cat6/PoE) cables.
- Connectors: Practical termination of BNC, DC Jacks, and RJ45 connectors.
- Power Supply: Selecting SMPS for CCTV and calculating power requirements.

Module 3: Recording Units (DVR & NVR)

- Storage Devices: Installing Surveillance-grade HDDs and capacity calculation.
- Configuration: Setting up Motion Detection, Recording Schedules, and Alerts.
- Backup & Export: Methods for backing up footage to USB or Cloud.

Module 4: Networking & Remote Monitoring

- Network Setup: Assigning IP addresses and Port Forwarding.
- Mobile Access: Configuring Cloud P2P for remote viewing on smartphones.
- Introduction to IP Cameras: Direct PoE connections and wireless (Wi-Fi) cameras.

Module 5: Final Capstone Project (Surveillance Deployment)

- **Project Task:** Students will design and install a 4-camera security system.
- **Requirements:** Select appropriate camera spots, run cables, terminate connectors, configure the DVR/NVR, and enable mobile remote viewing.
- **Submission:** Live demonstration of the working system and a brief site layout diagram for the final Viva.

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