

CHIPFIXMASTER INSTITUTE

CCTV CAMERA TECHNICIAN COURSE

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ADVANCE CCTV CAMERA INSTALLATION AND REPAIRING COURSE

Module 1:

CCTV CAMERA AND INSTALLATION

- Basic concept of CCTV camera and its work
- Types of devices used for CCTV installation work
- Digital and Analog Technologies in CCTV cameras
- Types of cameras according to design, specification, and features
- How to choose a CCTV camera for different locations and areas
- Camera angle, distance, width, and degree selection
- How to create a CCTV cable for connection
- Types of connectors for CCTV camera installation work
- Physical connection of storage device in DVR
- CCTV camera installation with DVR
- How to create network cable (Cat5, Cat6) with RJ45 connector for IP camera installation
- Process of IP camera installation with NVR
- How to connect a mic and speaker with CCTV camera



CCTV CAMERA FAULTS AND REPAIRING SOLUTIONS

- Parts of CCTV camera
- Assembling and disassembling of different types of CCTV cameras
- Working concept of CCTV camera parts
- Faults of CCTV camera
- Repairing and solutions for CCTV camera faults
- Practical of CCD camera (two-way communication camera)

- Cable connection and socket knowledge of CCD camera

CAMERA LENSE & LIGHTING CONCEPT

- What are CCTV camera lenses?
- Difference between manual iris lens and auto iris lens
- Difference between fixed lenses and varifocal lenses
- What is the lighting concept in CCTV camera installation work?
- Infrared and its explanation according to distance

Power Supply Concept

- Types of power supplies used in CCTV installation work
- Various voltages for camera, DVR, and NVR (24V, 12V, 19V)
- Individual plug-in and common SMPS
- Selection of power supply according to the project



Transmission Media

- What is transmission media?
- Types of cables used for CCTV (RCA, HDMI, RG6, RG11, RG58, Coax, Cat6, Cat5)
- Power supply concept according to cable distance

Switcher (Customized & Readymade Switcher)

- What is a switch?
- Types of switchers
- How to connect a switcher with CCTV cameras
- Use of switchers

Storage Device Concept in CCTV

- Types of storage devices in CCTV
- Physical connection of storage devices
- Recording types of CCTV cameras for storage
- Complete knowledge of software for storage device management

DVR (Digital Video Recorder) & NVR (Network Video Recorder)

- What is DVR and NVR
- Difference between DVR and NVR
- Types of DVR and NVR
- Overview of all ports on DVR and NVR
- Practical on different types of DVR application software

CCTV Networking

- What is the networking concept in CCTV
- About routers and modems
- Concept of network cable colour coding for connection
- LAN & WAN network setup configuration
- About the control panel of routers
- How to take cameras online on smartphones and laptops
- Practice on Android-based applications for DVR and NVR to view cameras online
- How to receive reminder emails for camera errors



Troubleshooting & Business Concept

- Projects legal concept
- CCTV camera devices marketing (sales/purchase)
- Projects analysis and quotation