

CCTV, ALARM & BIO-METRIC SYSTEMS TECHNICIAN TRAINING

COURSE OVERVIEW

New-Path ICT offers this 4 Weeks CCTV, Alarms & Bio-Metrics Installations and Management Training which we have designed to cover the key aspects from an enhanced technical perspective, to give students the knowledge and skills they require to gain an edge in this challenging field. Utilizing a blended learning approach, this program is offered by New-Path ICT Centre aims to develop the skills to help the learners venture into SELF-EMPLOYMENT by starting their OWN BUISNESSES

COURSE OBJECTIVES

At the end of the CCTV installation course, you will understand the fundamental elements that make up a CCTV System, setting up a Camera, Monitor, Switches, Quads, Multiplexers, and recording devices, Connect up and test system elements, Be aware of the issues associated with lighting and scene illumination, Adjust the Back Focus of a lens to prevent picture going out of focus from day to night., Be aware of the significance of the “Operational Requirement” and the EN50132 test protocols, Be aware of the relevant standards and issues, Use a lens calculator to choose correct lens for particular application, Have an awareness of the changing technology and its impact on the industry

COURSE DETAILS

- ✓ Course Duration: 2 Weeks (SEMINAR COURSE)
- ✓ **Cost: Kes. 17,500.00** (*Payable in 2 Instalments*)
- ✓ Training Model: 100% Practical

WHAT YOU WILL LEARN

- ✓ CCTV Systems
- ✓ Elements of a basic CCTV system
- ✓ Camera types and uses
- ✓ Camera specifications
- ✓ Back Focus adjustment.
- ✓ Lens types and Use of lens calculator.
- ✓ Scene illumination
- ✓ Switches, Quads, Multiplexers and control systems
- ✓ Monitors and Multiple screens displays.
- ✓ Recording the footage and Time-lapse recording

- ✓ Cables and connectors
- ✓ Introduction to Digital CCTV and IP technology.
- ✓ Connection to other security systems.
- ✓ Use of test equipment including
- ✓ Relevant standards, issues and the “Operational Requirement”.
- ✓ The Analogue or Digital option? Changing technology and keeping updated.

DETAILS

1. CCTV Systems-This unit entails Introduction and uses of CCTV
2. Elements of a basic CCTV system-You will understand the different elements of a CCTV such as Camera, monitor and digital recorder and their functions.
3. Camera types and uses: -You will be taught the types of cameras used in CCTV installation such as the Fixed and movable, indoor and outdoor, monochrome and color, day and night and their uses.
4. Camera specifications: -This lecture is about CCTV camera specifications, what they mean and what the latest standards are saying about them. When responding to tenders or choosing a camera from the many different models available today, it is important to understand what the key parameters of a camera are and how to choose the best one for a given project. We cover in details Minimum Illumination, Resolution, SNR and Dynamic Range as Sensitivity.
5. You will understand how to use Back Focus adjustment on your CCTV.
6. Lens types-You will understand different lens types such as fixed and variable focal length, manual and motorized zoom and how to use each of this lenses with your camera.
7. Scene illumination-Lighting considerations, LED's, infrared lamp maintenance and bulb life.
8. Switches, Quads, Multiplexers and control systems-Types and applications.
9. How to use Monitors and Multiple screens displays.
10. Recording the footage-Analogue and Digital video recorders.
11. 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 equipment including- Multi-meters, Oscilloscopes, Light Meters, Pattern Generators and Cable Length Meters.
 - ✓ Relevant standards, issues and the “Operational Requirement”.
 - ✓ You will know which options to use between the Analogue or Digital option and changing technology and keeping updated.

ADMISSION REQUIREMENTS

National ID (ONLY)

TRAINING MODULES:

MODULE -1: CCTV Systems Basics

- ✓ Basic concept of CCTV camera and its work
- ✓ How many types of devices used for CCTV installation work.
- ✓ What is Digital and Analog Technologies in CCTV Camera?
- ✓ Types of Camera according to design, specification and features.
- ✓ How to choose a CCTV Camera for different location and area?
- ✓ Camera Angle, Distance, Width, & 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 mic and speaker with CCTV camera

CCTV CAMERA FAULTS & REPAIRING SOLUTIONS

- ✓ Parts of CCTV camera
- ✓ Assembling and disassembling of different types CCTV Camera
- ✓ Working concept of CCTV camera parts
- ✓ Faults of CCTV camera
- ✓ Repairing and solutions of CCTV camera faults
- ✓ Practical of CCD camera (Two way communication camera)
- ✓ Cable connection and Socket knowledge of CCD camera

CAMERA LENSE & LIGHTING CONCEPT

- ✓ What is CCTV Camera Lenses?
- ✓ Difference between Manual Iris Lens & Auto Iris Lens.
- ✓ Difference between fix lenses and veri-focal lenses.
- ✓ What is Lighting concept in CCTV camera installation work?
- ✓ Infrared and its Explanation according to distance.

POWER SUPPLY CONCEPT

- ✓ How many types of power supply used in CCTV installation work
- ✓ Various voltage of camera, DVR and NVR – 24 V, 12 V, 19 V,
- ✓ Individual Plug in and common SMPS
- ✓ Selection of power supply according to project

TRANSMISSION MEDIA

- ✓ What is Transmission Media?

- ✓ Types of cable used for CCTV Cable
- ✓ Use of RCA, HDMI, RG6, RG11, RG58, Coax, Cat6, cat5 Cable
- ✓ Power supply concept according to cable distance

SWITCHER (CUSTOMIZED & READY MADE SWITCHER)

- ✓ What is switcher?
- ✓ How many types of switcher?
- ✓ How to connect Switcher with CCTV Camera
- ✓ Use of switcher

STORAGE DEVICE CONCEPT IN CCTV

- ✓ Types of storage device in CCTV.
- ✓ Physical connection of storage device.
- ✓ Recording types of CCTV camera 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
- ✓ About all ports of DVR and NVR
- ✓ Practical on different types of DVR application Software

BONUS!!



Installing Video Door Phones & Intercoms



Installing Bio-Metric Time Attendance (Clocking) Systems

MODULE – 2: CCTV CAMERA ONLINE (NETWORKING)

- ✓ What is Networking concept in CCTV
- ✓ Concept of Network Cable Color Coding for connection
- ✓ LAN & WAN Network Setup Configuration
- ✓ About Routers and Modem
- ✓ About Control Panel of Routers

- ✓ How to take camera online on smartphone and Laptops
- ✓ How to Get reminder mail of camera error
- ✓ Practice on Android based application for DVR & NVR to view camera online
- ✓ TROUBLE SHOOTING

BONUS!!

- ✓ FREE BUSINESS & MARKETING TRAINING (How to Market Online on Google, FB, Instagram, Twitter, Jiji, Jumia Ads. Etc.
- ✓ How to Create your own simple MARKETING WEBSITE,
- ✓ FREE MARKETING Fliers Templates, Tips & CONCEPTS...)

Certification: A CERTIFICATE IN CCTV & ALARMS OPERATIONS
will be issued to ALL candidates upon completion of the course.

This course will prepare students well to:

- ✓ Start their own business in the wide field of CCTV and Alarms & Bio-Metrics
- ✓ Employment as CCTV Technician or Controller

Welcome!!