CCTV Camera

45 Hours Training Program - TEVT Sector

Teaching - Learning Material

Project Implementation Unit
Department of Mechatronics, University of Engineering and
Technology, Peshawar

Table of Contents

Introduction

This intensive, 6-day training course is designed to give Trainees the practical skills and knowledge to program CCTV systems. A combination of the core ideas with prolonged, good practices enables the participants to master the skills of installing, configuring, and maintaining the analog and IP-based CCTV systems. Trainees will get hands-on with different cameras, cables, recorders, transmitters, and network devices in everything they do.

Training Objectives

- This course will help develop a proper understanding of the components of CCTV systems, their installation process, and safety measures.
- The participants will also gain practical knowledge of operating the widely used tools and camera installation, as well as having experience with DVR/NVR setup and connection to the network to grant remote access to monitored premises.
- The training will also enhance problem-solving skills by being systematic in the troubleshooting of problems and undertaking daily maintenance tasks.
- This short Training aims to empower the participant with the necessary knowledge and skills needed to provide entry-level workforce in the areas of CCTV installation and security systems, maintenance, and technical support services.

Training Learning Outcome (TLOs):

TLO 1: Explain the differences between analog and IP-based CCTV systems. Identify and describe the functions of key components, including Cameras (bullet, dome, PTZ), DVR/NVR units, Monitors, cables, and power supplies. Understand the appropriate use cases and environments for various camera types.

TLO 2: Demonstrate correct usage of Personal Protective Equipment (PPE). Follow electrical safety protocols and safe practices when working at heights. Identify and safely handle: Installation tools (crimpers, testers, drills), Electronic components, and cables. Perform installations while minimizing risks to personal and equipment safety.

Assessment Structure

Since this training is fast-track & skill-oriented, therefore special mode of assessment is recommended as under:

Component	Marks	Passing Criteria
Theory (MCQs + Short Questions)	30	50% (15 marks)
Practical (Capstone + Presentation)	70	60% (42 marks)
Total	100	To be eligible for the Certificate of Competency in CCTV Camera, trainees must maintain at least 75% attendance and successfully pass both the theory and practical components of the assessment.

Who Should Enrol?

- Minimum education level of middle or matriculation.
- Unemployed individuals or informal sector workers looking to upskill or formalize their practical knowledge for better job opportunities.
- Aspiring entrepreneurs or small business starters.

Training Module and Delivery Plan:

Total Training Hours	45 Hours

Introduction

CCTV (Closed-Circuit Television)

Cameras can be very important for law and order. Cameras are different

Monitor places and record environmental scenes so that

.Inform people in case of any difficulty or accident

Coins

CCTV

Cameras work in a small, remote mode. This is a minor

are electrically powered and installed in a unique location or on the ground

These cameras are mounted on the walls or ceilings so that they

.They can remain hidden and not be observed

.Cameras are used in visual environments. They capture general camera views

.They record and share the images with an editor or monitoring team

.are shown to those who can monitor them

CCTV

that will enhance your space services important are Installation and electrical monitoring is

 This system allows you to view blocked

Provides and helps identify any security threats

CCTV

For installation and electrical monitoring, you can seek the help of a qualified technician

who is capable of doing this technical work. And their

.They should also have more experience so that they can provide you with the best security system

.Coins

CCTV

Along with the installation of, electronic monitoring is also necessary to ensure the system is functioning .properly

.Systematic maintenance can be carried out. Electronic monitoring has improved the system's performance

Helps improve and immediately correct any errors

.I am helpful

TOOLS AND INSTRUMENTS FOR CCTV

Multi Meter: An electronic device used for measuring voltage, resistance and current. It is used for checking voltage and continuity in the CCTV field.	
Hammer: Used for hitting, especially for cable clipping works.	
Pliers: Used for holding objects firmly and also cutting wires and cables .	

Wire cutter: Used for cutting as well as stripping wires.	
LAN Tester: This is a tool for connectivity measurement, which is used for CAT5 and CAT6 cable testing. This will check every connection of the cable to assure if it is perfect or not.	
LAN Crimping Tool: Used for crimping and cutting a RJ45 connector to a LAN cable.	
Screw Driver: To drive screws in any type of material.	

Ladder	Used to climb up to reach high places (6 to 7 feet)	
Utility Knife	Used to cut various objects such as wires, cords and tapes	
Coaxial Wire Stripper	Used to trip insulation of different coaxial cables with different thickness	
Diagonal Cutter	Suitable for cutting aluminum, iron, brass, copper and steel wire. Sharp edges of its jaws intersect a joint rivet on the diagonal at a particular angle.	
Crimping Tool	Used to join pieces of metal, because of which one or both metals are deformed in a way such that they can hold each other. The result of the tool's work is called a crimp.	

Aligner: A type of small screw driver which is needed for electronic devices and has a small screw place for calibrating.	
Drill Bit: This is used along with drilling machines in order to have holes drilled out of walls, to mount a camera, conduits along with different operations.	
Hexa Blade: Used for cutting conduits in order to fit these as per the site need.	

ƒ‰‡Ɔ 10

Drill Machine: Drill machines are of two types – a hand drill while the other is a bench drill machine. These are used for camera mounting and also installing cable in conduits.	
12V 1A Power Supply: This needs to be kept along with the tools and then be used for checking the field issues for a CCTV.	

Measuring Tape: Ideal for any installation, it is used for measuring first. It can be used for measuring the length of cable.	
Cleaning Brush: Often dust causes a lot of disorder in the CCTV system and hence it is required to carry a cleaning brush.	

CCTV Tool Monitor: It is a small monitor which has the required video inputs and used for checking the field anytime needed.	

Tool Bag: All the tools mentioned must be neatly arranged in a tool bag, otherwise the required tool may not be found at the time of need.	

Site selection on CCTV

Site Of Choice C C T V Of For Mehta Yes . C C T V Of System Of Formation And Performance Such Profession Professional Information On Based Would have Is Which Different Factors To Mad Look Have Done Site Of Selected To do Of Need Would have Is here . Some Necessary Factors Of Dhikr What? Gia Is Who Thinking Done Site Of Selected To do Necessary Would have been Is

Importance Of Determination Do : CCT V System Of For Site Selected Do Time , First From Fixed Done Importance Of Determination To do Important Would have been Is . This Questions Of Answers Born Does Is That You Why? And Where C C T V System Installed Do Have been

. House Of Under Peace : Site Of Selected Do Time , Peace One Important Problem Would have been Is System Of Formation From First , You To House Of Under Peace Information Gain To do Should So that . You Address Do Can What? Extra Security Measures Of Need Be Gay Or not

Site Selected by Do Time , Telescopes Of Natural Ink Of Arrangement Also To   :Telescopes Of Natural Ink do Necessary Would have been Is . Telescopes These Days Technology Of Together Development Do . Stayed are. which Them Less Ink I Also Practical To keep Of Able Making Is

Cable Of Power :   CCT V System Of Telescopes To Cable Of Through Connected What? Goes Yes . You To Selected Do Time , Cable Of Power Of Also Idea To keep Will be Because Error Or Weak Cable . Qualifications To Affected Do Can Is

Electricity Electricity Of Capacity : one Permanent Power Of Balanced Continuity Making Of For , You To Completion Of For All From Nearby Pound Of Also Overview Take There will be electricity . Of For Suitable System Correct Work To do Possibilities Of To be Necessary Is
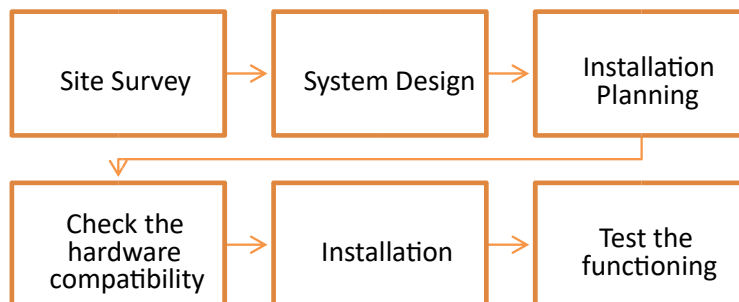
Such Factors To Door Look Have Done , You To Site Of Okay. Choice To do Should So that C C T V . System Efficiency From Work Do Coins And Completed Supervision Provided Do Coins

At the end of this unit, you will be able to:

1. Explain the positioning of camera
2. List the environmental conditions to be considered for camera installation
3. Identify the protection grades
4. Draw the layout for installation

A CCTV installer must be aware of the workflow of CCTV installation process. The following figure lists the workflow of the installer:

```
┌──────────────┐     ┌──────────────┐     ┌──────────────┐
│ Site Survey  │ ──> │System Design │ ──> │ Installation │
│              │     │              │     │  Planning    │
└──────────────┘     └──────────────┘     └──────────────┘
       ┌─────────────────────────────────────────┘
       v
┌──────────────┐     ┌──────────────┐     ┌──────────────┐
│  Check the   │ ──> │ Installation │ ──> │  Test the    │
│  hardware    │     │              │     │ functioning  │
│ compatibility│     │              │     │              │
└──────────────┘     └──────────────┘     └──────────────┘
```

After analyzing the site conditions and customer requirements and selecting the components, the installer needs to plan for the installation. The planning includes determining the layout of components, making drawings of the layout, positioning the camera and so on.

Purpose of the CCTV system

What is the purpose of CCTV cameras

Official Security

,Camera System Of All From Important Purpose This Is That He Official Institutions, Police Neighborhood Or Other Government Countries Of Principles Of Restrictions To Look Style No Do Are . This One Effective Method Is Which Public Tolerance To New Of Attacks From To save I Help Does Is

Commercial Peace

Camera System Of Second Best Purpose Is That When You My own Shop, Bank, Or Factories To Leave ,Do Going Are So You His Safe Could be Are . This Possible Build Is That You Yours Customers For Theft . Rent Business Toghaf, Or Brokerage Jesse Illegal Government affairs For Awareness Gain Can

:Box Character

Camera System Cobham Important Proven Would Today Of World I Very All Households Officials For have This is . Parents To Sure Making Is That These Of Children Home I Hello. Stay Stay. Are And Servant Dar Also Hosting For Correct Methods From Work Doing Are . This Of Besides, If Ever Theft Or Dangerous Fitation Screen Of Through Police To Niazi Transmission Provided Situation Located Would have Yes, So . Can Are
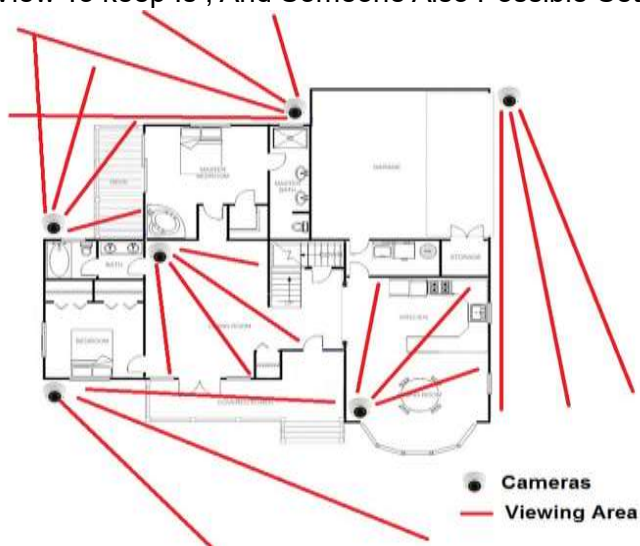
Public Dangers : Bicycle From Take Do Traffic Of During You Whole City I Every Side People To Security Camera System Formal Control Room Of Through Police And Notification Channel Path Give Are Institutions To Possible Making Is That He Awards And Social Media Of Through Public Dangers From Skin . Symbolic Attention Give Can

Camera System One Requirements Or Commercial Place Of Against This Fixed Purpose Of Together This ,Legal Usage Of Violence Of Against People Of Safety Does Is . Plus Therefore, This Centers, Streets . Parks, Small Spaces And Other Public Places To Also Best Supervisory Come. Keeps Is

CCTV SYSTEM DESIGN

C C T V Of System Design To do Important Work Is Which Generally Security Schemes I System Of Models Of Very All Types Be Can Are However One Effective And Generally Usage To be   The one Method Address To do Of For You Of For A few Standard Tips Present Do   Are

Scene Of Analysis : All From First , You To System Of Usage Of For Required Views Of Analysis To do Be Will. You To Thinking Be Will That How much? Places To Coverage To do Is , Who Side Of Resident Area .Of View To keep Is , And Someone Also Possible Setbacks Of For Need Be Can Is

Cameras Choice : One Bar When You Of Needs To Understanding Taken Gia Is , You To Optic Cameras Of , Choice To do Of Need Be Will. You To Photo Of Description , Limitations , Focus Range , Resolution Sanson Lens , Color Diagnosis Of Qualifications , Night Of Sensitive To be , And Hard Result Facilities Of .Need Of Under One Camera Selected To do Be Will

Night Vision Day - Night Outdoor PTZ Network Camera Hidden

Box Camera Bullet Style Dome Camera Outdoor Wireless

Active Property Of Come. Bring : System To Total As On Running Of For , You To Projects On Talk Chat To do , Camera And Other Devices To Resolution To give And Chat Of For Cadiz Wiring Of Come. To bring Of .Need Be Will

Storage To do Of Arrangements : You To Approved To do Be Will That How much? Duration Pictures To Storage What? Go. Will , Who Like Of Storage Shapes Usage I am Gay , And Long Period Until Storage .Did Go Those Security storage Of Usage How What? Go. Will

System Of Monitoring And Security : You To Spread Cassette To do Those And System To Technically Monitoring And Safety Of For Someone Able Confidence Person On Confidence To do Be Will. Such , .Person Approved Responsibility Ownership Keep it. Will That System To Organized As On Run Go Applied Doing I am Of Act And Previous Disadvantages Of Search Of

System Of This Experience And Specialization Of Work Is , This For Able Confidence And Detailed Formation To give For One Expert Professional From Advice Gain To do Necessary Is. Installation Of For One Licensed And Education Winner Function Of Search Do So that You To Best Results Gain To do I Help

Mill Coins

CCTV installation features

.Location : The installation location should be such that it overlooks the viewing area

To be able to monitor in the best way, avoid high points and obstacles

Special care should also be taken to keep

.

Correct Position : The camera should be positioned in such a way that it is clear and

is effective for tracking and ,Ensures obstacle-free footage
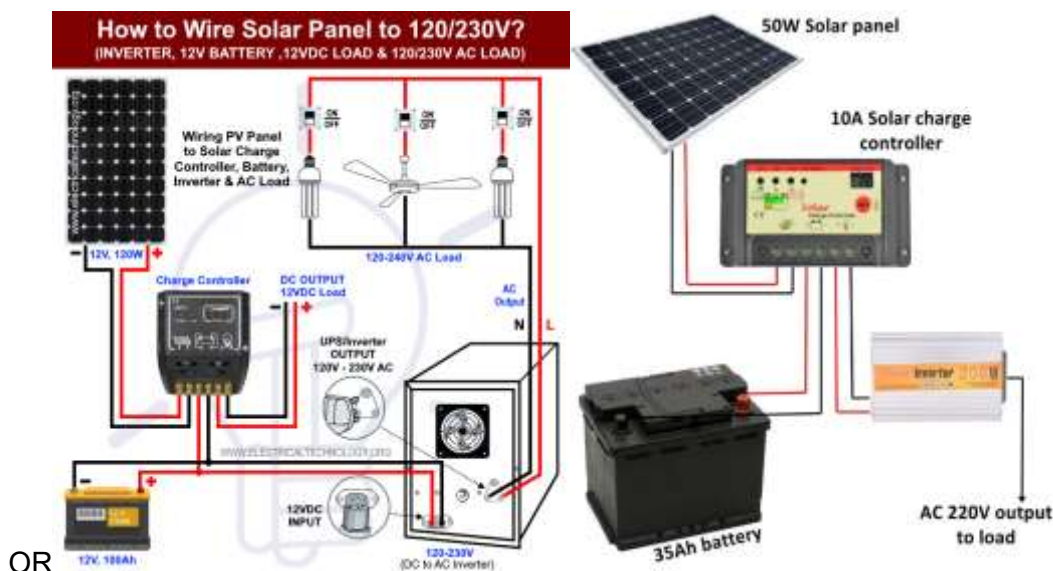
.Supervision by Chris

.Lighting : Take care of proper lighting conditions to clarify the footage

.Yes, both during the day and at night

Power source : Constant power supply in Yersrapam for partial operation

.Must have a source

OR

Connection : Camera secured to recording device or visual station

.It should be connected properly so that the footage can be viewed in a story

.Weatherproofing: If the cameras will be installed outdoors, they should be weatherproofed
.We must be solid to face the situation

.Compliance : The installation complies with all legal restrictions and monitoring systems
should be respected, in addition to taking into account privacy laws
Should

Testing and Deployment : CCTV System Maintenance and Reliability
It is regularly tested to ensure

Types of camera

:The types of rooms are as follows

Dome Cameras:1

These Of Shape Of the dome (dam) Like Would have Is Which Generally Something Also Pushing Of Distinguish Keeps Are Like Example Of As On Individuals, Location, Mole, Public Buildings etc. To Photo Do Are . This Ease From Installed Would be Are And These Of Beaks To be Of Appearance I Installed Of . Possible Are

Bullet Cameras (Basket) Cameras):

These Of Shape Belt (of bullets) Like Would have Is And This Real Basic Rooms I Included Would be Are This Generally Exterior Safety For Usage Would be Are . They Of Symbolic Symbol Long Body Would .
have Is Which Of Reason From This Thieves Of In cooperation
.Help She/He/She Are

PTZ Cameras (P T Zee Cameras):

P T Zee Cameras Generally Able Scene Citizen Regions I Usage Would be Are . This Rooms Electricity Of) Delay Would be Are And All four Directions I Hill Can Are . They Of View control To do Of For This Room . remote) control Of Together Coming Are

PTZ CAMERA

(pan, tilt, zoom)

C - Mount Cameras Cameras):

This Type Of Rooms Of Pass Got it. Lens Height Acceptable Would have Is No That Others Type Of Rooms Of Like Installed Would have Are . This Lens To plant Of Eligibility To Increasing Are Which From

.Visits Long Of Pictures By This Rooms Better Made Are

WirelessCameras Network Cameras :5

These Rooms To Without Cable Of Usage Did Going Are . This Joint Batteries Of Through Hot Did Going Are And Without Cable Connection Of Installed Done Gone Which Of Made On We Exterior Regions I

. These To Felt Can Are

,A network camera, used as part of a CCTV system, is a technical device that is used for recording surveillance, science, part of a system or commercial environment, etc. This camera plays an important role in organizing communication, which makes it possible to transfer data to other devices.

A network camera does not transmit images electronically, but rather enables the transfer of image data via an internet connection. For this, a network cable is used to connect the camera to a network or CCTV system.

:Other types of cables used for CCTV systems include

Disadvantages of CCTV room

:Characteristic care in daily life .1

.A major concern regarding CCTV is the concern about the source specificity

.They are doing it because they feel like they are always being watched

.Cost: A CCTV system is expensive to set up, and its maintenance is expensive .2

.And monitoring also leads to additional costs

Data misuse: CCTV footage for passive purposes .3

.Can be misused, such as blackmail or slander

.Access Restriction: CCTV camera access is limited .4

.And they also have rare points that cause them to fail in some areas

.Hacking risk: Hackers can gain access to the CCTV system .5

.and may misuse this footage

.Reliability of power: CCTV system needs a constant power supply .6

.They are needed and a temporary power outage can render them useless

Legal Issues: Legal and ethical issues related to the use of CCTV .7

.There are issues, such as data protection laws and immediate permission for the film

Advantages of CCTV Room

: Safety and Security

,Installing a camera increases security, which can prevent theft

.Reduces opportunities for break-ins or other crimes

:Detention and surveillance

Camera installation can monitor important incidents and

.Detention can be imposed, which can prevent excesses and crimes

:Ability to record

The camera has the ability to record events, which

.It helps in searching and researching the future

CCTV rules

CCTV may vary from country to country and specific regions. Rules or laws to encourageCCTV While I can provide you with some general advice on the government system in general , these will not be specific to the Urdu language.

Permission and Registration: Generally, you need to obtain permission from the relevant .1 cameras. This may usually involve registering an application orCCTV authorities to install . obtaining a license for installation

Cameras should not be installed in a way .Privacy rules: It is important to maintain privacy rules that could interfere with the passage or special areas where privacy is expected, such as bedrooms or restrooms, etc. Transparent information should be provided to clearly indicate the .presence of the camera to ensure transparency

Specifics of the restrictions : Some areas, such as sensitive government buildings, private residences and high-security zones, have restrictions on installing CCTV cameras without explicit .Can .permission

cameras should be of good quality to produce clear images: CCTV Image quality and recording and recordings. Generally, high-resolution cameras are more useful for diagnostics or quick .assessment of incidents

Retention period: How long seized footage can be stored varies by law. This can depend on local .laws, which can vary from weeks to months

Data Protection: In many jurisdictions, there are laws in place to protect captured data from unauthorized access. This may include: encryption, password protection, and restricting access to .captured footage

Directness of signs: It is essential to advertise the presence of express CCTV cameras with clear .signs, informing the public that they are under surveillance

. should consult with local authorities or legal experts to work out the specific laws in your area :Installing cameras reduces operational costs, such as

.The number of protectors decreases

:Business Option

.Installing cameras provides improved visibility and security opportunities for businesses
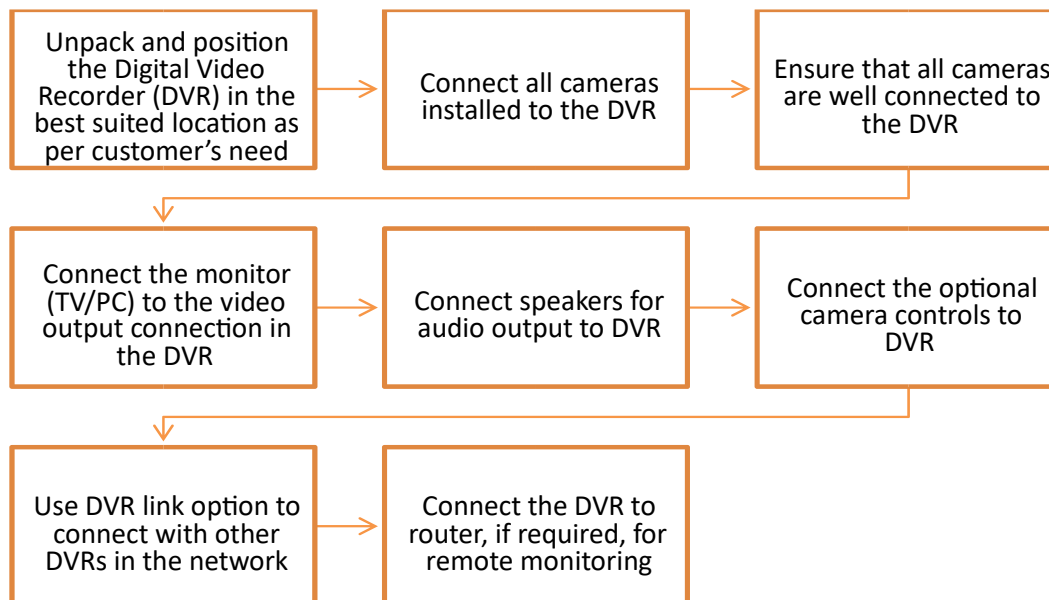
Installation of cameras

a CCTV camera How to install

: Select location .1
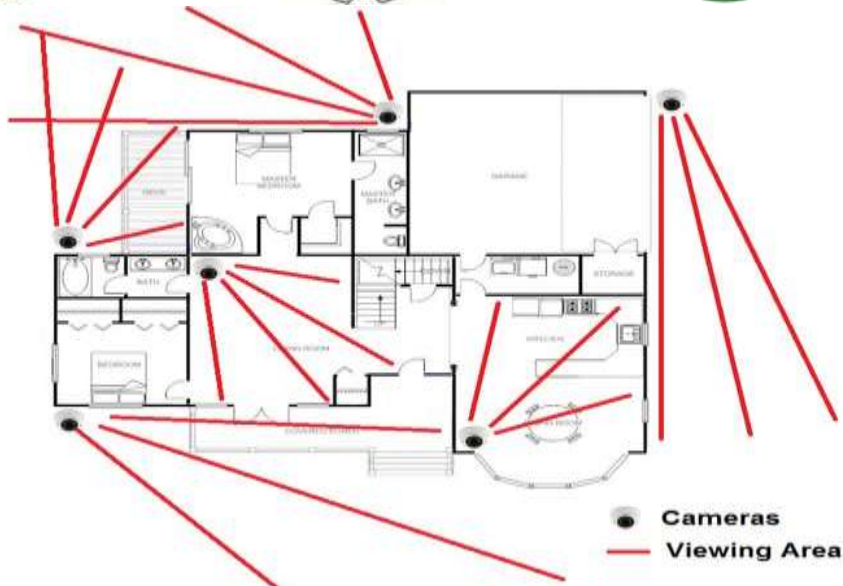
.First choose the location where you need the camera

The following figure lists the steps for integrating DVR with the CCTV system:

| Unpack and position the Digital Video Recorder (DVR) in the best suited location as per customer's need | → | Connect all cameras installed to the DVR | → | Ensure that all cameras are well connected to the DVR |

| Connect the monitor (TV/PC) to the video output connection in the DVR | → | Connect speakers for audio output to DVR | → | Connect the optional camera controls to DVR |

| Use DVR link option to connect with other DVRs in the network | → | Connect the DVR to router, if required, for remote monitoring |

The CCTV installer should designate a location for the DVR and Monitor to be installed.

| Check the all camera | → | |

Cameras
Viewing Area

2. **Choose the appropriate camera** :

You need to choose the appropriate camera according to your needs, such as a circular, dome, bullet, or pan-tilt camera.

3. **Install the camera in a suitable location:**

Install the camera in a suitable location, and make sure it can be seen from inside, protecting some of your characters.

4. **Connect the camera and associated system to electrical power. To do**

Connect the camera to a strong electrical circuit so that it is in contact with electrical

.power

Suitable for recording or monitoring :Install a camera recording or monitoring system .5
details
.Install the system

.Testing : Finally, test the camera to make sure it is working properly 6

LENS SELECTION AND CAMERA

.Camera Choice : You To Individual Requirements Of According to Camera Selected To do Will happen Factories, Shops, Schools, Homes etc. For Suitable Camera Selected What? Can go Is. Eyecan Estimates Apply That You To How many? Mega

.Pixel, Camera Of Sorrow And Coloration Of Need Will be

Lenses Choice : Lens Of Choice Mixture And Suitable As On Work To do Those Cameras Cameras Of Angle, Focus And Away Style Does Is. Prophecy Do That Censor Of Size Of Together Mail Accounts Done Lenses Usage Do

So that Required Judith Of Description Intact Stay Coins

Guess Installation : Good Quality Of Pictures Gain To do Of For Indoor And Oat String I Cameras Of Number On Consideration Do it. Suitable Angle, Away And Suitable Ground Level On Camera Scheduled
Do So that Correct Pictures
.Gain Could be

Room view Care : one Bar Cameras Of Installation Completed To be Of Later, System To Organized As On Look To come The next room Of According to Configuration Give. System Of Soft Weapon To Control To do From First Confirmation Do That All Cameras Of Correct Come on. Stay Are And Pictures Correct As On

.Seizure Happening Are

If You These Tips To Caution From Usage Do Will So You

.System Of Correct Design And Camera Choice I Success Gain Can Are

Camera selection

Of the room Choice Very , System Of Model Formation Of For Correct Method Car Of Decision Making Important And Helpful Be Can System Of Sustainable And Car Arrival Style Practical   Life   I   Danger   To Less

To do And Protection Available   To do I   Help Does Is

Listed Below Brochures On Consideration Do Done , You Your room Choice To

Known Can Are

To the cameras Where Usage What? Go. Will? Someone Big Area Of Monitoring Or Someone Special Place Of Surveillance? This Question Of Answer Give Done , You   Suitable Places And Cameras Of For   To see Start Can Are

: Qualifications Video Recording

What? You Cameras Of Video Recording Of Monitoring To do Want Are there? Cameras To Hard Disk I Record To do Want Will Or For example Memory Card On Safe To do Want Will you? This Question Of . Answer Give Done , You Cameras Of For Suitable Storage Of Option Of Research

Can Are

: Resolution

Cameras Of Resolution How much? To be Want? High Resolution Those Cameras Better Details Present Can Are , Although He Expensive Also Would be Are. Minor Resolution Those Cameras Also Useful Could .be Are

: Extra Features

, Cameras Of Qualifications Abundance , Zoom etc. Of Mad Look To keep Important Maybe Is. This For us . Extra Features Those Cameras Authority Can Are Which Ours Requirements To Whole Can

Budget : Camera Of How much? Budget You Of Teachings Of According to To be Want? Yours Usage Of Rate Of According to One Suitable Budget Scheduled To do Of
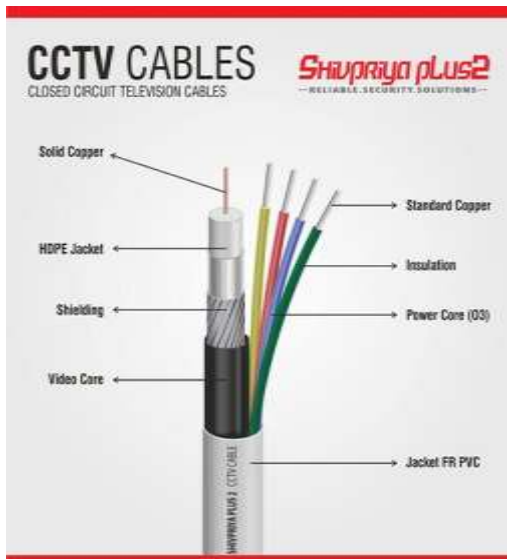
. Effort Do it

CABLES AND STAND USE FOR CCTV SYSTEM

CCTV systems require various types of cables to ensure proper functionality and reliable transmission of data and power. Here are the different types of cables commonly used for CCTV systems.
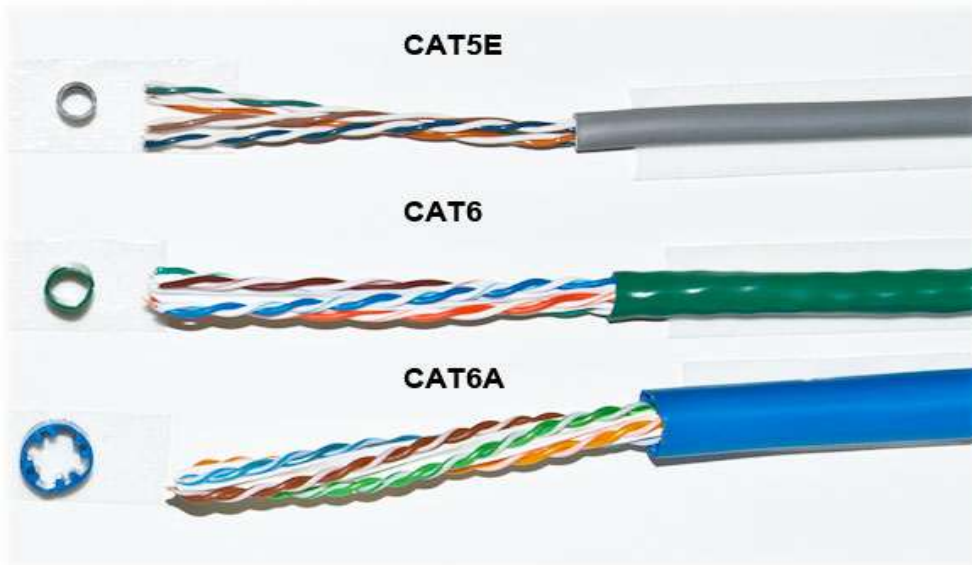
(Coaxial Cable): Black And White Cable

Cameras From Image Data Move One Black And White Cable Or Coaxial Cable Of Through, Always What? Goes This is . Cable Electric Start, Video Signal And Indications Also Move Do Can This is . Cable . Long Away Work And Good Image Quality To Sure Build Is

(Network Cable) :Network Cable

cameras Systems Of For Usage Would have been This is . Cable Data To Move ToIP ,) Ethernet cable) do Of For Usage What? Goes Is And As Clock Of Method Also Work Does Is . IP Cameras I High

. Resolution Pictures And Water Of Trolls Included Be Can Are

(Power Cable) :Electric Cable

Electric Cable, Of For Necessary Would have been Is So that Cameras To Electric Power Provided Of This
.cable is used in the room

Match the following type of cables with their respective images:

Type of cables	Image
Ribbon cables	
Twin-lead cables	
Twisted-pair cables	
Paired cables	
Portable cord	
Direct-buried cable (DBC)	
Multi core/ Multi conductor cable	

BNC CABLE &
POWER CABLE

CCTV cable types

Coaxial Cable   Twisted Pair Cable   Video Power Cables

Siamese Cable   Optical Fiber Cable

DC male   DC female

BNC male   BNC female

BNC Male

BNC Female

Video Cable (To DVR or TV)

Power Input Interface

Camera Power Cable

Camera Video Cable

BNC to RCA Connector

BNC to BNC Connector

Cable tester Rj45/Rj11

Network cable pairing instrument

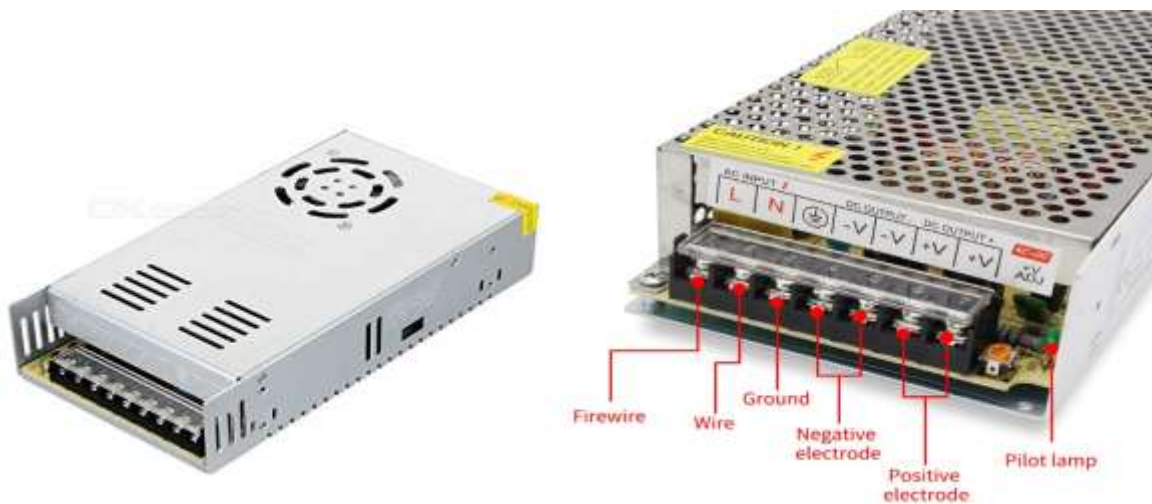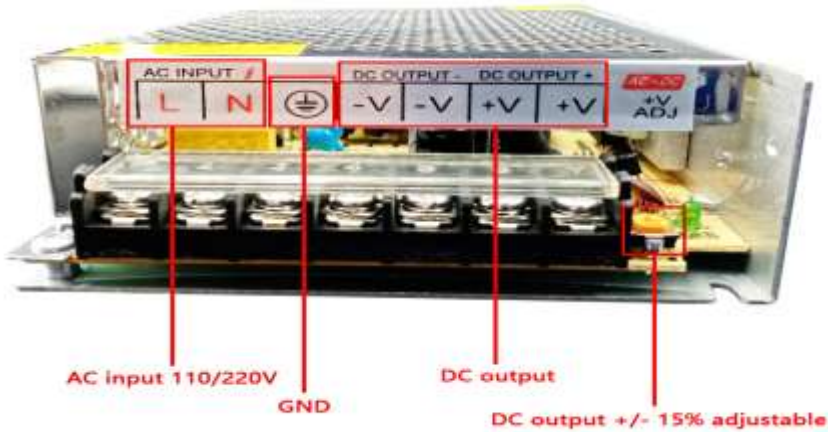Line on-off error checking point, wiring network engineering monitoring line maintenance

RJ45+RJ11 universal

.Mounting bracket: The bracket is used to securely mount the camera to a wall, ceiling, or other surface

Power supply for cctv

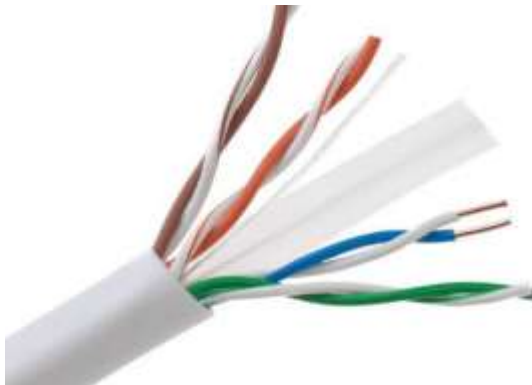AC input 110/220V
GND
DC output
DC output +/- 15% adjustable

RJ 45 CONNECTOR WITH CAT 6 CABLE

RJ45 PINOUT T-568A

1 | White/Green
2 | Green
3 | White/Orange
4 | Blue
5 | White/Blue
6 | Orange
7 | White/Brown
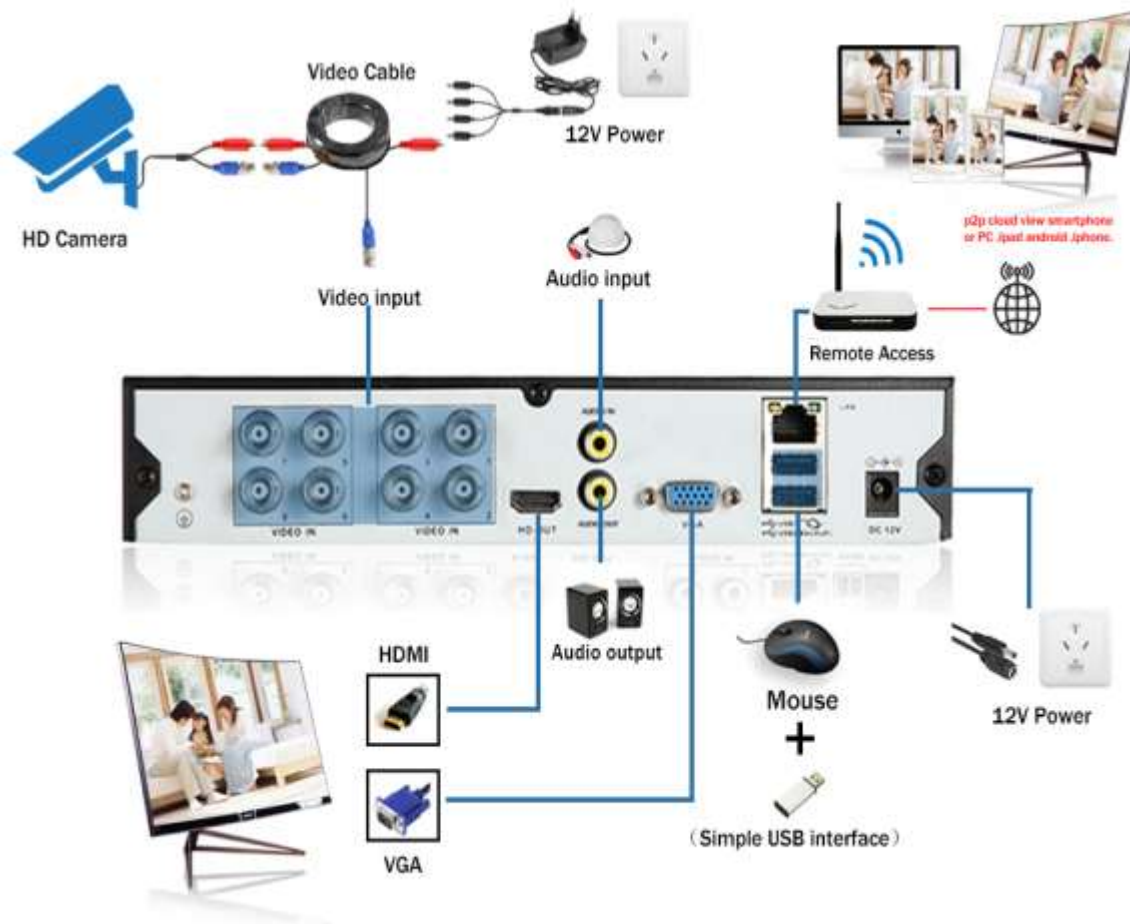8 | Brown

Camera power adopter

PRACTICAL # 01
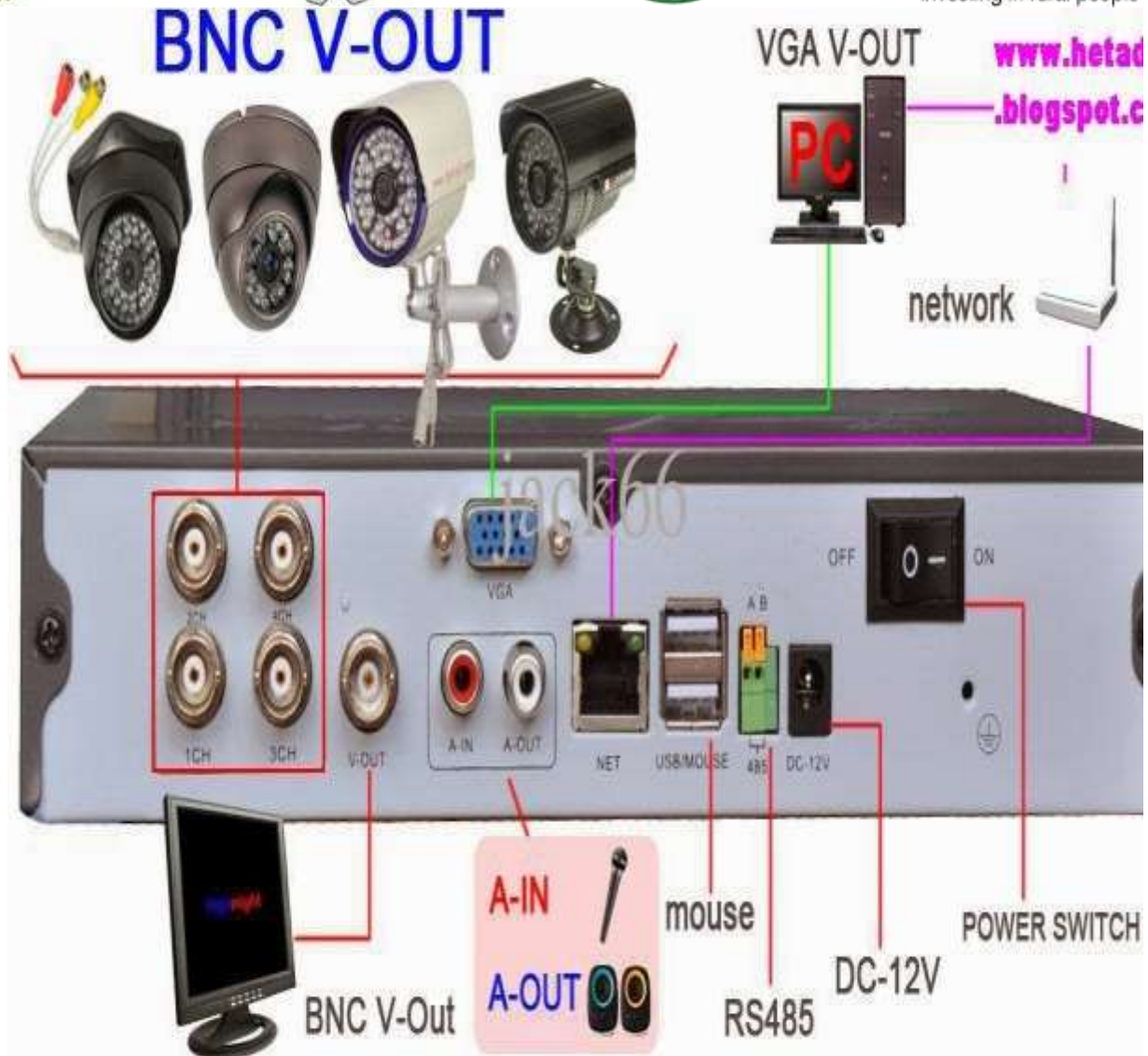
–

DVR SETTING & CONFIGURATION

Connection Diagram-HD CCTV DVR System

The CCTV DVR System is plug and play. easy to set up,
Making lift more easier, Remote Viewing anywhere anytime.

Video Cable

12V Power

HD Camera

Video input

Audio input

p2p cloud view smartphone
or PC /ipad android /iphone.

Remote Access

HDMI

Audio output

Mouse

12V Power

VGA

（Simple USB interface）

PRACTICAL # 02

QUICK SETUP GUIDE

PRACTICAL #03

HD CCTV CAMERA WIRING DIAGRAM FOR DVR/HVR
TWO CAMERAS ON ONE CAT6 CABLE

Cat6 Cable
Maximum upto 100M will support

Practical #04

POE Camera (No Need Power)
Audio Out
Mouse

Network

VGA
HD Port

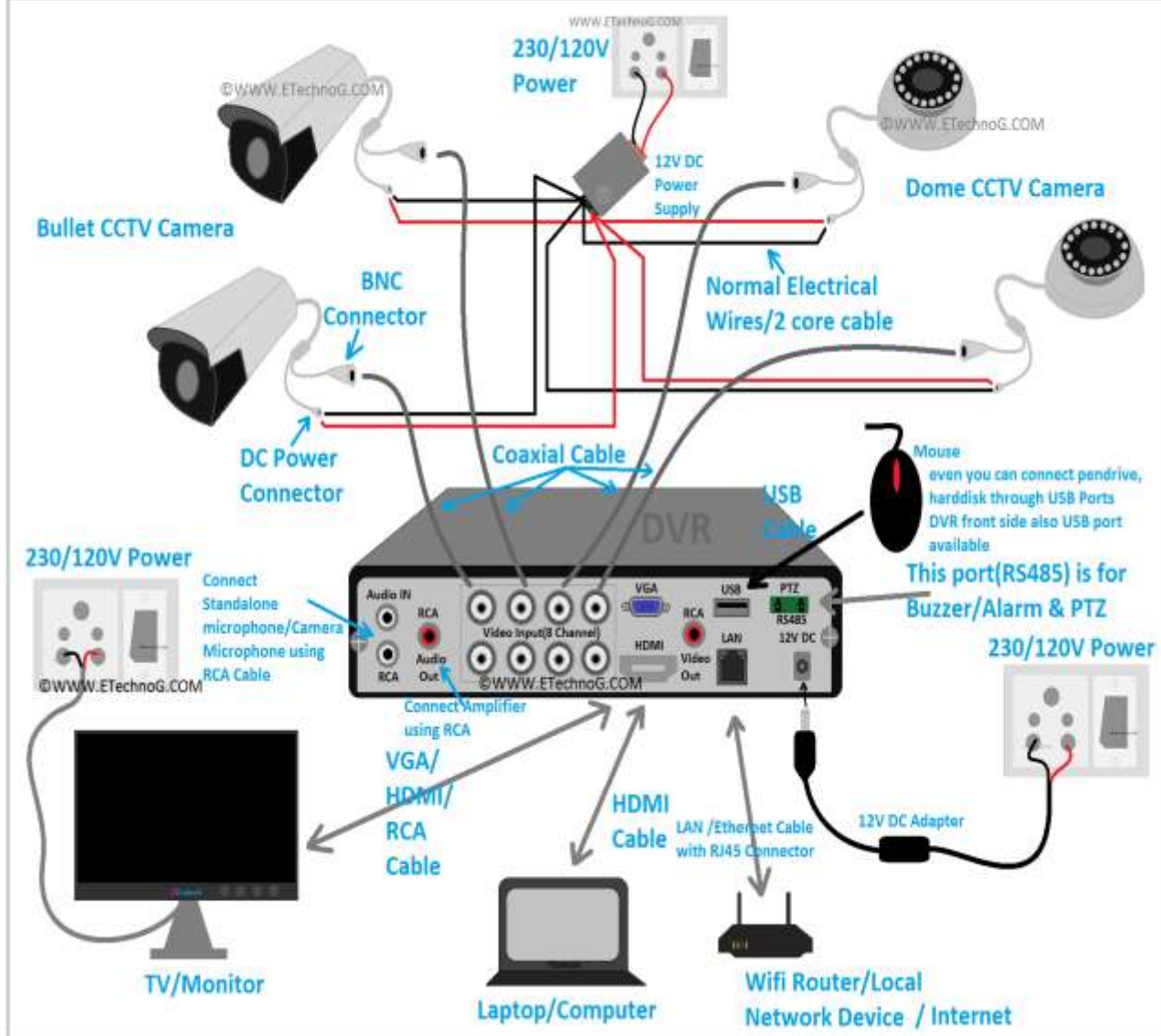Power Supply

P2P Cloud Remote
View By Smartphone,
PC(Android,IOS)

Practical #05

Figure. 01 CCTV Camera Wiring Diagram for Installation with DVR

NVR SETTING AND CONFIGURATION

www.electricaltechnology.org

DVR

- 16 Channel Video Input
- Audio Output
- HDMI
- USB
- Audio Input
- PTZ
- Power Supply
- Router
- VGA (Monitor / LCD)

WIRED VIDEO IN

NVR

www.electricaltechnology.org

- ON / OFF
- Power Supply
- Audio Output
- VGA (Monitor / LCD)
- HDMI
- USB
- Router
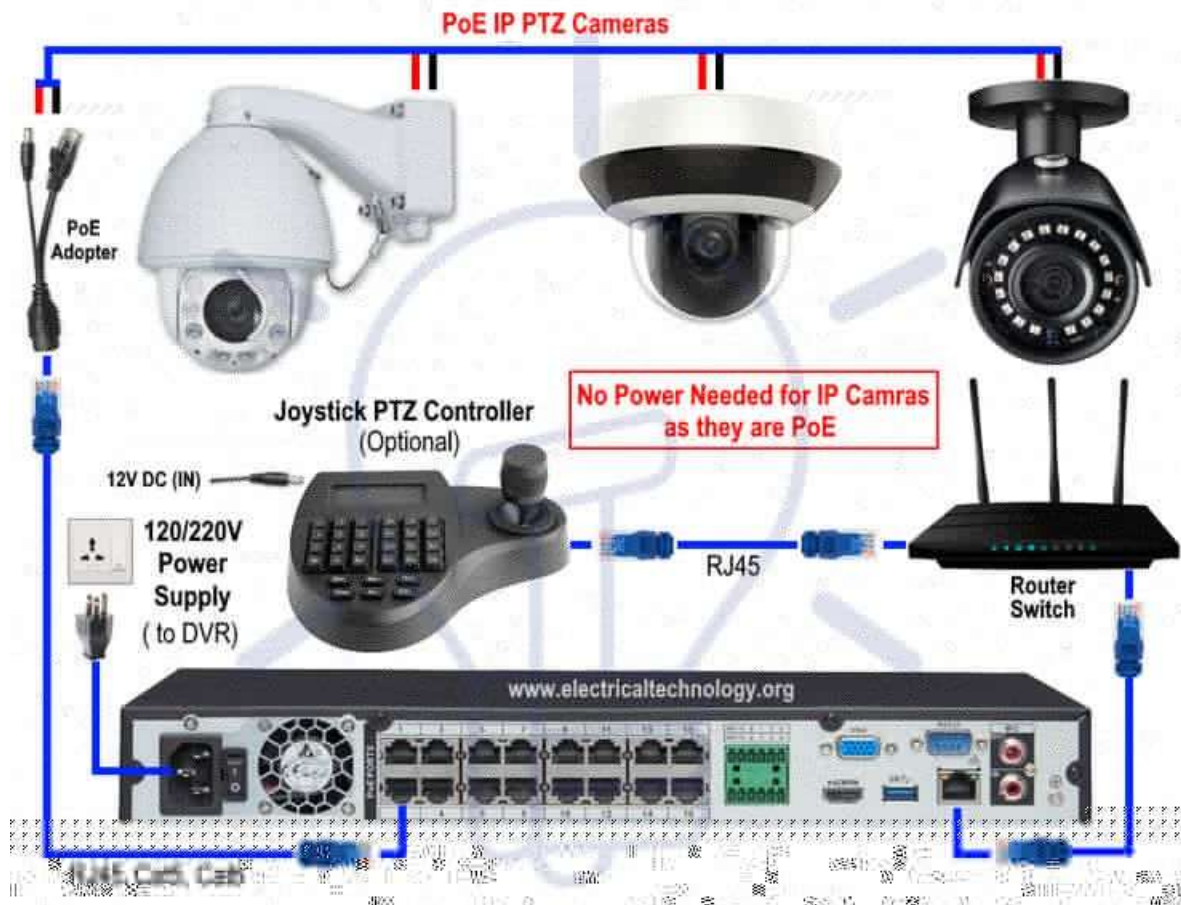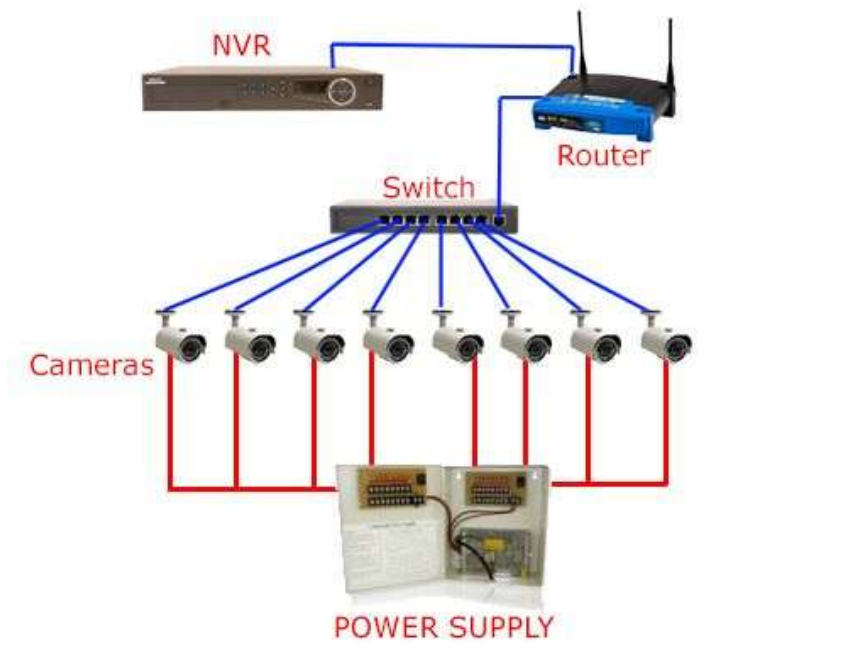- PoE 8 Ports

How to Wire PoE IP PTZ Camera to NVR

KP-RETP Component 2: Classroom SECAP Evaluation Checklist

Purpose:

To ensure that classroom-based skills and entrepreneurship trainings under KP-RETP are conducted in an environmentally safe, socially inclusive, and climate-resilient manner, in line with the Social, Environmental, and Climate Assessment Procedures (SECAP).

Evaluator:_____

Training Centre / Location:_____

Trainer:_____

Date: _____

Category	Evaluation Points	Status		Remarks /Recommendation
		Yes	NO	
Social Safeguards	Is the training inclusive (equal access for women, youth, and vulnerable groups)?			
	Does the classroom environment ensure safety and dignity for all participants (no harassment, discrimination, or child Labor)?			

	Are Gender considerations integrated into examples, discussions, and materials?			
	Is the Grievance Redress Mechanism (GRM) process, along with the relevant contact number, clearly displayed in the classroom			
	Are the Facilities and activities being accessible and inclusive for specially-abled (persons with disabilities)			

Environmental Safeguards	Is the classroom clean, ventilated, and free from pollution or hazardous materials?			
	Is there proper waste management (bins, no littering)			
	Are materials used in practical sessions environmentally safe (non-toxic paints, safe disposal of wastes)?			
	Are lights, fans, and equipment turned off when not in use			

	(energy conservation)?			
Climate Resilience	Are trainees oriented on how their skills link with climate-friendly practices (e.g., renewable energy, efficient production, recycling)?			
	Are trainers integrating climate-smart examples in teaching content?			
	Are basic health and safety measures available (first aid kit, safe exits, fire safety)?			

	Is the trainer using protective gear or demonstrating safe tool use (where relevant)?			
Institutional Aspects	Is SECAP awareness shared with trainees (via short briefing, posters, or examples)?			
	Are trainees encouraged to report unsafe, unfair, or environmentally harmful practices?			
Overall Compliance	Overall SECAP compliance observed	☐ High ☐ Medium ☐ Low		

Overall remarks/ recommendations			
Name	Designation	Signature	Date