1st Month

**Basic Electronics**
Current, Voltage, Multi-Meter, soldering and dis-soldering pth Conductor, Insulator, on/off Sw, Fuse, Coil, AC, DC, Diode, Zener Diode, Capacitor, LED, Transformer, Transistor

**Power Supply**
- Type of Power Supply
- Connection of Power Supply
- Load Calculation
- Test
- Making of Own Power

**Supply unit for DVR and Camera**
- Fault & Repairing of Power Supply

**CCTV SYSTEM**
- What is CCTV System
- What is CCD Camera
- Type of CCTV Camera
- Compone of Basic camera
- Assembling CCTV Camera
- Types of Camera Lens

**PCB of CCD Camera**
- PCB Parts
- PCB Types
- PCB Technology

**CCD (charge-coupled device) Description**
- Function of CCD
- Type of CCD
- Sizes of CCD
- Brands of CCD

**Quality of CCD Camera**
- T V L
- Resolution

**Connection of CCD Camera**
- Simple Camera Connections
- Audio : MIC & Speaker Connection.

**LED Night Vision Connections**
- Type of Lense
- Board Lense
- C mount Lense
- Auto Iris Lense
- Zoom Lense

**CCTV ACCESSORIES**
**Cable**
- Type of Cable
- Quality of Cable
- Gauge of Cable
- Use and application of Cable

**Additional**
- Motorised Lens
- Housing and Mounting
- Video Balloon
- Type of Connectors

**DVR (DIGITAL VIDEO RECORDERS)**
- Type of DVR
- Frames Configuration of DVR
- Internal Setting of DVR
- Front and Back Panel of DVR
- Wiring Connections of DVR
- Types of Storage Device
- HDD fixing in DVR
- HDD Formatting throw DVR Menu

**CCTV CAMERA Installation**
- Testing & Positioning Camera Through Camera Tester
- BNC connector connection, power cable connection
- Cable Preparation & Testing
- Installation of CCTV camera
- Wiring and its connections
• Power supply for camera
• Connectors - BNC / RCA
• Power Connectors
• DVR Structure
• Front and back panel of DVR

2nd Month

DVR
• DVR Connections
• Audio Connection in DVR
• Hard Disc Installation
• Output to TV and Monitor
• DVR operation and settings
• USB Back up

TROUBLESHOOTING
• Hardware Troubleshooting
• Software Troubleshooting
• USB back up from DVR
• Fault findings

TEST AND ANALYSIS
• Written Test and grading

HOW TO VIEW CAMERA ON NET
NETWORKING FOR CCTV
• Introduction to LAN
• Networking topologies
• Media
• Cabling and Different Cables
• Communicating through LAN & WAN
• Making Straight throw cable and X-Over Cable
• IP Address configuration
• Ping Reply
• Remote Viewing of cameras
• Wiring and connections
• Network connectivity
• Modem or router configure
• DVR Port Forwarding
• DVR Software installation in computer and Mobile phone.
• Viewing of cameras on Smart phone & other computer throw same Wi-Fi or other internet