# Smartphone and Tablet 1,2&3 x Laptop and Desktop repair course



## **OBJECTIVE**



**Our Aim**: Our training in mobile phone repairing Is skill-oriented training. The **classroom training also provides hands on practice. The right infrastructure is required** to ensure that the students develop.

#### **About the course**

Smartphone and Tablet 1,2&3 x Laptop and Desktop 1,2&3 is a five-day course that prepares participants to become certified in troubleshooting iPhone, iPad, Samsung, laptops and desktops and repairing Phone and laptops models at a professional technician standard. Through interactive discussions and hands-on exercises, participants learn setup, navigation, features, and associated services, Participants also learn how to maintain, troubleshoot, and repair devices. Participants' knowledge and skills are tested and reinforced by working through real-world scenarios in hands-on labs. Training for these courses is available to technicians who work at or want to work a mobile repair shop.

Smartphone and Tablet 1,2&3 x Laptop and Desktop 1,2&3 is a fiveday course that prepares participants to become certified in troubleshooting and repairing: Laptops, Desktops, Tablets, IPad, IPhone ,Samsung and Androids.

#### **Support and Benefits**

- Unlimited repair practice at our Service Centres and no extra cost for retake
- Unlimited on-going support at no extra cost and telephone support for students related to any repair issues.
- Business setup support for candidates interested in self-employment.
- Repair guide price list and repair terms and condition.
- List of suppliers and business plan template.
- Facilitate accounting support (free for first 3 months start-up)
- Support with finding a job.

#### **PREREQUISITES**

You **must** have Proficient English to complete this course.



TELEPHONE: +44(0)2035000733 EMAIL: INFO@MPRTS.ORG WEBSITE: WWW.MPRTS.ORG

ADDRESS:

25 WOODFORD AVENUE, ILFORD, ESSEX, (IG2 6UF) GREATER LONDON. UNITED KINGDOM NEAREST TRAIN STATION (UNDERGROUND): GANTS HILL (CENTRAL LINE)

## **TOPICS COVERED THROUGHOUT TRAINING**

# Smartphone and tablet (Theory) level 1:

Concept and structure of GSM, CDMA, 3G, 4G networks

- »» Theory and concept of ESN, IMEI and SIM relationships.
- »» Determination of physical and liquid damage detection on PCB Boards.
- »» Basic soldering and de soldering techniques.
- »» Use of proper tools and opening techniques to dismantle devices.
- »» Assemble and disassemble on iPhone, Android, iPad and tablets.
- »» Phone malfunction and liquid damage troubleshooting.
- »» Data transfer and recovery techniques.
- »» Mobile Phone Unlocking Remove carrier locks off GSM Phones.

# Laptop and desktop (Software) level 1:

What is the Operating System?

- »» How to install Operating System? (Window Installation)
- »» Hard drive Partitioning
- »» Hard drive formatting
- »» Driver Installation
- »» Offline driver installation
- »» Online driver installation
- »» Manual driver installation
- »» Application Installation
- »» Antivirus (Windows Settings and Security)
- »» Microsoft office installation
- »» Windows Backup & Restore.
- »» Workgroup Networking & Internet Concept.



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# Laptop and Desktop (Hardware) Level 1:

Identification of laptop-Desktop part

- »» Adapters/Chargers
- »» Types, work, volt, Ampere, pin detail, Basic problem.
- »» (Battery) Types of Battery, work, volt, pin detail, Basic problem.
- »» LCD: Types LCD, Brand, size, and wideness.
- »» Inverter: Types of Inverter and pin detail.
- »» Hard disk: Types of hard drive its problems and solutions.
- »» Keyboard: Type of keyboard, Basic problem, and solutions.
- »» Body/Housing
- »» Hinges size, Front Panel, Back Panel.
- »» PCB/Motherboard: Type of Motherboard its manufacture Identification.
- »» Ram: Types of RAM.
- »» CPU/Processor: Types of Laptop /Desktop CPU its identify diagnosing and troubleshooting.
- »» CD/DVD Drive: Type, brands, Basic problem.
- »» Introduction to tools and equipment's
- »» Troubleshooting
- »» Laptop and Desktop Assembly & Disassembly
- »» Common fault diagnosing and troubleshooting

## **Smartphone and Tablet Level 2:**

- »» Structure and design of the BGA Controller Chip.
- »» Techniques of how to repair Water Damage devices.
- »» Techniques on how to repair physical damage, troubleshooting on GSM and CDMA phones.
- »» Replacement Techniques on LCD, Ribbon flex cable, Speakers, Camera and Battery.
- »» How to repair phone not powering on (no power), no network signal or unstable signal.
- »» How to repair your Phone when it automatically shuts off (Power Cycling)
- »» How to replace the Sim Connector, Switch, Battery connector, SD memory connector, Vibrator, Flex Cable Switch, Multi pin Data Port, LCD plug-in connector and Charging Port.
- »» How to repair on-board components, circuit bridging and Jumper techniques.



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# Laptop and Desktop Level 2:

- »» Installation of windows on secure boot enabled laptops (for latest laptops who have this security)
- »» Installation of Windows without losing customer data (Data Backup and recovery)
- »» How to create Bootable USB Drive.
- »» Networking -IP address-Ipconfig-Assigning IP address
- »» Hardware Section (Theory & Practical)
- »» Identify each component & IC's in the Laptop Motherboard.
- »» Testing of electronic components (Multimeter use)
- »» Resistors, Capacitors, Diode, Inductors & Fuse (PCB Component identification)
- »» Proper use of the regulated dc power supply
- »» Understanding of OHM'S Law (Voltage, Amps and Resentence)
- »» Repair & Parts replacement (Practical Troubleshooting)
- »» How to repair/replace DC Jack (charging connectors)
- »» How to repair/replace LCD, LED and Touchscreen
- »» How to repair/replace Speaker, Microphone and Headphone Socket
- »» How to repair/replace Keyboard and Mouse
- »» Diagnostic AC/DC (Power system understanding)
- »» Dead Systems
- »» No display
- »» Dim display
- »» Freezing System
- »» WIFI Card replacement

## Smartphone and tablet level 3:

- »» How to use typical repair tools like Hot air rework station, Soldering Iron, Ultrasonic cleaner, Microscope, DC power supply, NAND Programmer, etc.
- »» Logic board fault finding, Multimeter use, Component voltage, and shortage check, chip desoldering and black adhesive removing techniques.
- »» Chip IC replacement, IC Reballing, EMI shield removal, and Micro soldering techniques.
- »» Remove/replace FPC connectors on the PCB, BGA IC Reflow, IC Repair, Backlight Fix, Charging Port Connectors, SIM Card Connectors, Battery Connectors, Wi-Fi Connectors, board
- »» SD Memory Card Connector, Multi-Pin Data Port, Vibrator.
- »» Level III Water Damage Phone Troubleshooting and Repair
- »» Physical damage repair and troubleshooting techniques on Mother Boards
- »» Repair Techniques for On Board ICs, Compactor, Diode, Resistor etc.
- »» No network signal or unstable signal
- »» Repair missing on-board components, circuit bridging & Jumpering techniques
- »» Phone automatically shuts off (Power Cycle)
- »» Use of Digital equipment to spot treat board level corrosion
- »» Board cleaning agent and solutions to treat liquid damaged Mobile phones.
- »» Introduction to board view software.

# Laptop and Desktop Level 3:

- »» How to read Schematics or Block diagram of laptops.
- »» How to diagnose a fault in Laptop PCB with the help of schematics and Block diagram
- »» Testing of electronic components with the Multimeter (Resistors, Capacitors, Diode, Inductors Fuse, Transistors, Mosfet & IC's etc.
- »» Special Training on BGA Machine/Hot air rework station
- »» Understanding of Advance Testing and Repairing Tools
- »» Desktop PCB fault diagnostic
- »» Laptop PCB faults diagnostic
- »» Identify each component & IC's in the Laptop motherboard.
- »» Using of DC power supply.
- »» Soldering and DE-soldering practice of IC's
- »» Soldering dislodging of USB Port, DC Power connector, FTP Connectors, Ethernet Connectors, and HDMI/DVI/ VGA Ports.
- »» Removing and Inserting Small SMD Components
- »» Tracing Different Section of Motherboard:
- »» Chip Level Practical (Using Solder Iron, BGA Machine, SMD Machine)
- »» Micro soldering (Proper use of a microscope)



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