



Practical and lab based workshop focus on new Entrepreneur/Job creation in computer hardware servicing



Hardware Servicing & Troubleshooting Session Plan

Day-1 : Theory & Practical (Morning Session Theory & Evening Session Practical)

- ▶ Introduction of Basic Computer Hardware

Day-2: Theory & Practical (Morning Session Theory & Evening Session Practical)

- ▶ Introduce with Tools & Machineries to Troubleshoot Board

Day-3: Theory & Practical (Morning Session Theory & Evening Session Practical)

- ▶ **Current Basic Concept:**

- ◆ Alternating Current (AC)
- ◆ Direct Current (DC)

- ▶ **Resister & Resistance**

- ◆ Resistor in Series & Parallel
- ◆ Types of Resistors
- ◆ SMT & THT Resistor Fault Finding: Short, Open, Leakage

- ▶ **Capacitor & Capacitance**

- ◆ Capacitor in Series & Parallel
- ◆ Types of Capacitor: Electrolytic & Non electrolytic, Polarized & Non polarized
- ◆ Works, Unit & Rating

- ▶ **Semiconductor Diode**

- ◆ Diode & Bridge Rectifier: How it Works

Day-4: Theory & Practical (Morning Session Theory & Evening Session Practical)

- ▶ **Transistor:**

- ◆ Transistor Working Concept
- ◆ Layers: Base, Emitter & Collector
- ◆ Transistor Type: B.J.T & U.J.T Transistor
- ◆ NPN & PNP Transistor
- ◆ Transistor Biasing: Forward Bias & Reversed Bias

- ▶ **MOSFET:**

- ◆ MOSFET Working Concept
- ◆ Layers: Gate, Source & Drain
- ◆ MOSFET Classes: Depletion Mode & Enhancement Mode
- ◆ MOSFET Type: N Chanel & P Chanel
- ◆ Single MOSFET & Dual MOSFET Concept
- ◆ MOSFET Fault Finding: Short, Open And Damaged
- ◆ MOSFET PWM

Day-5: Theory & Practical (Morning Session Theory & Evening Session Practical)

- ▶ **Schematic Symbol & PCB Marking:**

- ◆ Working Concept (DC in section, Step Down, Backlight) Laptop
- ◆ Fault Finding: Open, Damaged
- ◆ Bios Writing

Day-6: Theory & Practical (Morning Session Theory & Evening Session Practical)

- ▶ **Chipset (CPU, RAM, IC's)**

Day-7: Theory & Practical

- ▶ **Error Code Analysis**

Day-8: Theory & Practical (Morning Session Theory & Evening Session Practical)

- ▶ **Test/Exam**