

# Advance Mobile and Smart Phone Repairing

**Course content:**

**Duration:**

**Module 1: Basic Electronics.**

1. Basic Electronics Concept, Formation of Current, AC/DC Concept, Rules for Flow of Current.
2. Resistor- Symbol, Function, Denoting Letter, SMD Type Resistor Coding, Value measurement by Multimeter and SMD Tester.
3. Capacitor – Function, Types, Symbol, Identification of SMD Type Capacitor, Testing of Capacitor by Multimeter and SMD Tester, Value measurement by SMD Tester.
4. Coil – Function, Symbol, Denoting Letter, Types of material, Properties of Coil, Identification of SMD type coil, Testing of Coil.
5. Diode: Function, Symbol, Denoting letter, Identification of SMD Type Diode, Types of Diode, Testing of Diode, Anode and Cathode Concept.
6. Transistor: Introduction, Types, Symbol, Denoting Letter, PNP and NPN Concept, Testing of Transistor, Function etc.
7. Crystal: Introduction, Concept of Quartz, Clock and Pulse, Frequency, Measuring unit.
8. Use of multimeter :- measuring Resistance, capacitance, voltages.

**Module 2: Chip level Practice with Testing & Repairing Tools.**

Use of Soldering Iron, Micro Soldering Iron, Desoldering wire, File, Twiser, SMD Machine and Hot Melt Gun, All types of IC and Chip soldering/ Desoldering, All types of Electronic Component Solid and SMD soldering /Desoldering.

**Module 3: mobile phone basic introduction.**

1. GSM/CDMA Technology.
2. Mobile Handset Cellular Network Generations - (2G, 3G, 4G).
3. Different Terms used in mobile phones- SIM, Bluetooth, and SMS.
4. Mobile phone History.
5. Home Location Register.
6. Other Systems.

#### **Module 4: Mobile phone components.**

1. Mobile components- Ringer, speaker, mic, vibrater/motor.
2. Led, charging connectors, headphone/Earphone connector.
3. Data connector, camera connector, Etc.

#### **Module 5: Mobile basic component testing and troubleshooting.**

1. Disassemble and assemble of mobile phone.
2. Component testing by multimeter – mic, speaker, vibrater.
3. Replacement of LCD, touchpad.
4. Servicing method of mobile phone.
5. Replacement- SIM tray, mic, charging pins, etc.

#### **Module 6: Mobiles hardware.**

1. Section in mobile phone - PFO section, RX Filter, Network section, Antenna switch, Power IC, CPU, flash IC, Logic IC, VCO, ROM IC, Etc.
2. Study of block diagram.
3. Tracing and troubleshooting through circuit diagram.

#### **Module 7: Mobile Software.**

1. Connecting mobile with pc.
2. Introduction of flashing and software update.
3. Backup data and contact.
4. Restore previous version OS.
5. Flashing Nokia with UFS panel box.
6. Flashing Samsung mobile.
7. Samsung rocket software.
8. Unlock Apple-iphone.
9. ODM Unlocker.
10. Flash Miracle Box-China Mobile.
11. **And many more.**