# CHIPFIXMASTER INSTITUTE

## MacBook REPAIRING COURSE

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# **SYLLABUS**

## Module-1

- About Current (i), About Voltage (v)
- Electrical & Electronics
- Ohm's Law, Power (Watt)
- Resistor
  - Resistance
  - Combination of Resistors
  - Resistor as a Voltage Divider
  - Unit of Resistance
  - Working
  - Testing

# • Capacitor

- Working
- Testing
- R.C. Time Delay Circuit
- Coil (L)
  - Working
  - Checking
- Fuse
  - Working
  - Testing
- Conductor, Insulator, Semiconductor (N & P Type)
- Diode



- Combination of Diodes
- Working
- Testing

#### • Transistor

- Working
- Testing

#### • Mosfet

- Types of Mosfets
- Working
- Testing

# • Power IC, Digital IC

- Working
- Pin Details
- Testing

# • Regulator

- About Regulators
- Step Down Regulator
- Single Phase & Dual Phase Regulator
- Regulator with Mosfet & Without Mosfet
- Testing

## • Logic Gates

- Crystal
  - Working

#### • Use of Tools

- Multi-meter
- Temperature Controlled Iron
- Temperature Controlled SMD
- D.C. Power Supply
- VGA Machine
- D.S.O. (Digital Storage Oscilloscope)



# Module-2

- S3 State Powers Formation
  - +1.8V
  - +1.0V
  - +1.05V
  - +VCCSA
- VGA Powers
  - VGA\_Core
  - +1.0VPCI\_VGA
  - +Ram\_Run\_VGA
  - +3.3V\_Run\_VGA
- Formation of Core Enable Signal
  - VR\_ON
- CPU Core Regulator
- Clock Generator IC
- CPU GFX Regulator
- Basic Power Requirement
  - ICH/PCH
  - Graphic
  - CPU
  - SOC
- Connectors Pin Details
- Schematics Reading
  - Block Diagram
  - Power Plane
  - Power Rail
  - Power Tree
  - Timing Sequence
- Circuit Tracing Using Schematics
- BIOS ME Region Cleaning
  - LBE Software
- About Board Viewer
- Complete Troubleshooting of Motherboard

