

Schedule for fast-track course-15 days

DESKTOP COURSE 8 Days

1st, 2nd) Basic electronics & Microcomponents

AC & DC current, intro & testing of Microcomponents, concept of load & source, IC power supply, RTC, concept of Open-short-ground, Logic gates, using multimeter, signal testing using frequency meter

3rd) Practical of using tools

Using SMD Rework Station (BASIC) & replacing components, Jumpering using Solder Iron (BASIC)

4th) Desktop motherboard

Block diagram, layout & functions of all IC on the circuit

5th) Power section functions & fault testing

PWM section, RAM power supply & RAM regulator,

Cke0, Cke1, Ras, Cas, WE, Vddsp voltage signal testing

Power Logic Sequence of desktop motherboard

6th) Practical session for replacement of IC

7th) Desktop motherboard testing

IO port testing,

PCI SLOT testing- aux, reset, BIOS signal testing

MCH & ICH testing, regulator testing, power logic sequence testing, IO chip testing, clock synth IC testing, RTC Crystal oscillation testing... etc.

8th) Fault finding & troubleshooting

Solution to different faults, using tester cards for RAM & CPU

Testing using Debug card

LAPTOP COURSE 7 Days

9th) Assembly & disassembly of laptop using Service Manual

Sub topics:

Universal inverter replacement for LCD

Keyboard repairing

10th) Block diagram

Layout of circuit board & daughter boards

Function of ICs- Gmch, ich, pch, embedded controller...

Functioning of all peripherals & different slots

11th) Power section

Volt IN, Power Rail

PWM section testing & faults

RAM power section, RAM regulator testing & faults

Primary stepdown section testing & faults

Secondary stepdown section testing & faults

Charging & discharging section testing & faults

12th) Schematic reading

Reading signals of the system board

Power Logic Sequence of laptop systemboard

Systemboard Signals-CPU signals, MCH signals, ICH signals, PCH signals, Embedded controller signals, LCD signals, HDD signals, Pciex16 graphics signals,...etc

Trouble shooting

13th) Complete Laptop Systemboard testing & using tester cards

14th) Using BGA Rework station- Reballing of BGA IC

Using SMD Rework Station (ADVANCE) - Replacement of Gate chips & QFN chips

Professional Soldering (ADVANCE) - Process of Tining, Wetting, Reflow, Wicking

15th) BIOS flashing using Willem EEPROM programmer

Class Timing:

11am to 2pm class

2pm to 2:20pm lunch break

2:30pm to 4pm class

4pm to 4:15pm Tea break

4:20pm to 6pm Mobile class (15 days)