



INTERSOFT

TECHNICAL INSTITUTE

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COMPUTER REPAIR TRAINING COURSE MATERIAL

MODULES	COURSES	REGULAR 1.5 HRS	FAST 3 HRS	FULL DAY 6 HRS
MODULE C1	COMPUTER SERVICE TRAINING (CARD LEVEL SERVICES)	1 Month	15 Days	4 Days
MODULE E1	BASIC ELECTRONICS	15 Days	7 Days	2 Days
MODULE C2	SMPS, LCD REPAIRING (CHIP LEVEL TRAINING)	15 Days	8 Days	2 Days
MODULE C3	COMPUTER BOARD REPAIRING (CHIP LEVEL TRAINING)	1 Month	15 Days	4 Days

Terms & Condition:-

- ⇒ Registration Fees 1000/- Extra On Any Course
- ⇒ Reserve Seat before class and take online class
- ⇒ Course content, Fees & chapter may be change without prior notice

MODULE C1:

COMPUTER BASIC HARDWARE (for freshers)

- 1 **Basics Of Electronics** (AC,dc, volt ampear, multemeter used, measurement)
- 2 **Fundamentals Of Computer**(Defination,generation, classification, anatomy, input, output)
- 3 **Computer Assemble & Parts Identify** (smpps, cabinet, board, storage, cpu , board)
- 4 **Smpps** (types, pindetail, 12v, 5v, 3.3v pson, pgood, standby)
- 5 **Motherboard & Cpu** (types, block diagram, chip identify, north, south , io, lan, vga, agp etc)
- 6 **Hard Disk & Cd/Dvd** (SATA, PATA, size type, internal parts, spindle, motor , head ,vcm)
- 7 **Monitor /Lcd /Led** (working idea of lcd, basic problems of lcd, moniter)
- 8 **Ram** : (types of RAM , DDR1, DDR2, DDR3 , DDR4 , different volt)
- 9 **Printer Basic Ideas:** (Types , DMP, LASER, INKJET, ALLINONE , changing cartrage)
- 10 **Types Of Cards** (agp, graphics,, lan, vga , usb)
- 11 **Basic Operating System:** (types, single , multi user, booting process, bios setting,)
- 12 **Installing Os & Drivers**(format , windows installation, driver installation)
- 13 **Windows Operating Systems** (basic used, device manager, control panel, dos cmd, config)
- 14 **Virus, Antivirus, Internet, Settings** (antivirus software, internet connection, use of internet)
- 15 **Troubleshooting Of Computers** (msconfig, repair, NTLR missing, file missing)
- 16 **Basic Networking Concept:** (types of network ,cabling, cripting, ip address, subnetting, sharting files, printer)

MODULE E1:

BASIC ELECTRONICS ANALOG, DIGITAL, PRACTICE

1. **AC, DC, Electronics**, (Electrical, Current, Voltage, Watt, Ampere, Types Of Circuit, Measure.)
2. **Types of Material**, Working Detail of Circuit, Different Components.
3. **Resistor:** Types, Uses, SMD, Measure, Value.

4. **Capacitor:** Work, Types, Ceramic, Electrolyte, Tantalum
5. **Induction / Coil:** Work, Types, Check.
6. **Transformer:** Work, Types, Step Up, Step Down, SMD, Checks.
7. **Diode:** Semiconductor, N Type, P Type, Work, Types, Testing.
8. **Transistor:** Work, Types, NPN, PNP, Testing Method, Uses.
9. **FET, MOSFET:** Work, Types, NPN, PNP, Testing, Single Channel, Dual Channel, Testing, Uses.
10. **Other Components:** Fuse, Crystal, RTC.
11. **Digital Electronics,** Types of Number Systems, Conversion.
12. **Types Of Logic Gate:** AND, OR NOT NOR, NAND, Flip Flop, Exclusive.
13. **Study of Different** Chip Datasheet with Different Gates and Working Idea of Different Chips.
14. **Soldering,** Removing, Cold Testing, Warm Testing, Procedure of Components.
15. **Project on Electronics,** practical Idea of Using Different Components. Resistor, Capacitor Diode Transistor, MOSET, Fuse, Coil, Led, Switch etc.
16. **Soldering** and Desoldering Practice

MODULE C2 :

SMPS, LCD, LED REPAIRING CONCEPT

1. SMPS repairing
2. Lcd , inverter repairing concept
3. Hard disk basic troubleshooting
4. Ram basic service
5. Dvd rom Basic service

MODULE C3 :

COMPUTER DEKSTOP BOARD REPAIRING TRAINING CONCEPT

MODULE 3.1 : WORKING FUNCTION OF DIFFERENT CHIP AND MAIN SIGNAL TRACING

1. Basic computer & Block diagrams of computer motherboards, frame structure
2. Basic working detail of computer motherboards, power on signals
3. SMPS basic working and different volt , pson, pgood, sus, 12v, 5v, 3.3v vrm
4. MOSFETS & coil used, switching and linear output
5. Testing & understand vrm section offline and online with multimeter & cro
6. Understand Power on sequence of computer motherboard (K8V-MX)
7. Clock generator chip, Clock crystal, different frequency , voltage x1, x2,
8. Types of CPU socket and CPU, main signals of CPU(vid, vccore, shdn, vron)
 - a. VRM section detail with different phase for CPU
9. Northbridge working concept, main signals, different power
 - a. RAM , Types, main signals , linear output , voltage,
 - b. VGA display connector
 - c. AGP slot

- d. Graphic chip
- 10. South bridge working concept, main signals, different power
 - a. Hard disk, CD ROM connection, important signals
 - b. fdd connector
 - c. USB connector
 - d. sata connector
 - e. pci slot
 - f. bios chip ,main pins detail , identify, cmos battery
 - g. RTC, clock crystal,
 - h. PCI / ISA details pin out, important signals detail
- 11. LAN and audio chip, main signals, connection with socket
- 12. I/O controller working concept, main signals, different power
 - a. Com port
 - b. Ps2 connection
 - c. Printer port connection
 - d. Cpu temperature
 - e. Power controller , on/off , vrmon, etc
 - f. fan controller
- 13. PCI express /mini pci AGP slot, Testing signals on pci agp slots

⇒ **MODULE 3.2: MOTHERBOARD FAULT FINDING**

- 14. Common fault chart and solution steps of computer motherboard
- 15. Repairing steps of motherboard identify problems
- 16. Debug card details, use of Debug card ,common error code
- 17. Testing with multimeter, CRO different signals of motherboard

* pson, power good, 12v, 5v, 3.3v, 2.5v 1.5v 1.8v, 5vsus, reset signals, vid signals, rtc crystal, cmos battery, clock crystal, address, data buses, bios chip,

- 18. Slot tester and use details, cpu, ram, pci, agp
- 19. Reset signals detail , testing reset signals
- 20. Bios update

⇒ **MODULE 3.3: BGA REPAIRING AND REBALLING**

- 21. Washing, Cleaning, drying, Dry solder problem solution of motherboard
- 22. Introduction to BGA machines, used, temperature setting,
- 23. ICs rebelling, BGA ball arrangement, practice., Using BGA machine
- 24. Removing and inserting different chips practice (video & step)
- 25. Removing & replacing sockets , CPU , RAM, PS2, COM ETC
- 26. DEMO FOR OTHER PRODUCTS AVAILABLE

CONTACT

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