



INTERSOFT

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MOBILE REPAIR TRAINING COURSE MATERIAL

MODULES	COURSES	REGULAR 1.5 HRS	FAST 3 HRS	FULL DAY 6 HRS
MODULE M1	MOBILE SERVICE TRAINING	1 Month	14 Days	3 Days
MODULE M2	MOBILE CHIP LEVEL REPAIR TRAINING	1 Month	14 Days	4 Days
MODULE M3	MOBILE PHONE SOFTWARE TROUBLESHOOTING	15 Days	7 Days	2 Days
MODULE M4	ADVANCE MOBILE SMARTPHONE SOFTWARE REPAIR UNLOCKING	15 Days	7 Days	2 Days
MODULE M5	ADVANCE MOBILE SMARTPHONE CHIP LEVEL REPAIR	15 Days	7 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 M1

MOBILE SERVICE TRAINING,PARTS REPLACEMENT

1.1 BASICS OF ELECTRONICS

- AC, DC, Electronics, Electrical, Current, Voltage, Watt, Ampere, Types Of Circuits, Measure Units
- Types of Material, Working Detail of Circuit, Component Types
- Use of multimeter, measuring ac , dc, ohms ,
- Soldering and dsoldering of components
- Basic components identification

1.2 MOBILE BASIC WORKING

- TYPES OF MOBILE PHONES MODELS, RATE (nokia, Samsung, sony, Motorola, sagem, sonyericson, , iphone, china etc) from internet
- MENU & OPTION OF MOBILES(Profile, call divert, messege , contact saving , Bluetooth hands free, wifi use, blueetooth used, etc internet application download,)
- GSM & NETWORKING CONCEPT (How mobile network works, MSC, BSC, BTS Connecting to different MSC, HLR, VLR , understanding GSM, DCS, PCS,CDMA, TDMA technology)
- TYPES OF FREQUENCY AND BAND (uplink& downlink frequency, understanding 2g, 3g, 4g communication)

1.3 TOOLS DEMO & SMD COMPONENT REPLACING PRACTICE

TOOLS & EQUIPMENT USE FOR MOBILE PHONE REPAIRING

- (soldering iron, micro iron, solder wire, dsolder week, power supply unit, twiser, d solder pump, flux, thinner, elma, brush, air blower, smd blower,air blower, hair dryer lcd remover, etc)
- Soldering , Removing, Cold Testing, Warm Testing, Onboard Testing, t
- Component removing demo Jumper practice ,

1.4 ASSEMBLE AND DISMENTLE DIFFERING MOBILE PHONES, BLOCK DIAGRAM , SECTION

- OPENINING MOBILE PHONES STEPS (**Samsung, nokia, china, iphone, smartphone**)
- SERVICE MANUALS OF MOBILE PHONES (View service manuals from internet, video to view how to open big phones)MOBILE BLOCK DIAGRAM OLD, 3G,
- SMARTPHONE MOBILE BLOCK DIAGRAM (Understand block diagram of cellular phone ,old model, 3g models, smartphone models, Network section , charging section, power section , audio section, uem section, clock section, ram flash section cpu section ,

bluetooth, irda, wifi section, ringer vibrator section, keypad section, hagar if ic section radio)

1.5 IDENTIFY MOBILE PARTS, ICs AND THEIR FUNCTION

- POWER SECTION CHIP :- UEM IC / AVILMA / RETU IC, Power IC / UEM IC , Charging IC / betty ic / thavo ic, AUDIO IC
- NETWORK SECTION:- Antenna, External antenna, Antenna switch, PFO/PA/Power amplifier , Filter/ Amplifier/ coupler, IF IC/ RF IC, VCO / fdk
- CPU DATA SECTION :- CPU,RAM, FLASH/ ROM, NAND, EEPROM
- OTHER CHIP:- Crystal RTC 32768 ,Crystal Main 26MHZ, Camera ic,Bluee tooth ic,Radio ic,WIFI ic
- SMALL IC :- Keypad ic,Ringer ic,sim ic ,LCD ic,MMc ic
- CONNECTOR :- Vibrator,Mic,Ringer,Speaker,Wifi,

1.6 MOBILE PHONES REPAIR TESTING METHOD COLD TESTING & WARM TESTING VALUES

- (ringer & its connector, speaker & its connector, mic & its connector, vibrator motor, battery connector, display connector, camera connector, keypad connector, charger connector, power on off switch, sim card connector, micro sd card, external antenna, RTC Data RX and TX)Touch pad jumper

1.7 DEAD MOBILE TRACING STEPS,

- Short, open , close values, explanation , problems and solution)
- BASIC STEPS OF MOBILE REPAIRING(cleaninig with liquid a pcb, heating pcb, dry solder problems)
VOLTAGE CONSUMPTION (off mode, standby mode, on mode voltage consumption explaining)

1.8 OTHERS

- BATTERY (types of battery, lion, nickle inside of battery, lion, nickel, how to boost battery (zhatka), Memory effect in battery , common problems in battery
- CHARGERS (Types of Charger, smps, transformer, car charger, traveling charger, usb charger, power bank,)
- HANDS FREE
- SIMCARD (legs, pins, types, mini , micro , nano , sim cutter idea,
- IMEI (types of imei no,
- TYPES OF LOCK(IMEI no identification of mobile phone lock, security code, keypad lock, sim pin1 lock, pin2 lock, splock, Service provider PUK lock, google lock)
- RINGER VIBRATOR SECTION(practical explanation , diagram, problems, solution, tips,)

1.9 REPLACEMENT OF DIFFERENT PARTS

- LCD, TOUCHPAD, RINGTONE, MIC, VIBRATOR, SPEAKER, SOLDERING, BODY, SOCKET (charging, headphone, on off switch),

MODULE M2

MOBILE PHONE REPAIRING CONCEPT OF COMMON MODELS

2.1 ELECTRONICS COMPONENT TESTING IDENTIFY , REPLACING

- RESISTOR:- Types Used, SMD, Measure
- CAPACITOR :- Work, Types, Ceramic, Electrolyte,
- INDUCTOR COIL – Work, Types, Check,
- TRANSFORMER :- Work, Types, Step up, Step down, SMD, Check
- DIODE :- Semiconductor, Ntype, Ptype, Work, Types, Testing
- TRANSISTOR :- Work, Types, NPN, PNP, Testing Method, Used
- FET, MOSFET :- Work, Types, NPN, PNP, Testing, Single Channel, Dual Channel, Testing, Used
- OTHER COMPONENT Fuse, CRYSTAL, RTC
- DIGITAL ELECTRONICS :- Number systems types, Conversion of Number systems
- LOGIC GATE :- AND, OR NOT NOR, NAND
- Study Chip Datasheet and Working Idea of different Chip

2.2 MOBILE PHONE SECTION & FAULTS DETAIL

- a) CHARGING SECTION (practical explanation of charging, diagram of charging section, common problem & solution in charging section)
- b) ON/OFF POWER SECTION:- (how mobile start, on/off signals come from, common problems & solution)
- c) Dead mobile fault finding :- (checking pcb, short, open close , offline tracing)
- d) POWER/ UEM SECTION(practical explanation of different power supply to different chip, common problems and solution of power section, work of UEM/ Power, signals convert analog to digital, mixing of rx and tx signals, , common problems and solution of UEM section)
- e) NETWORK SECTION (practical explanation, antenna, antenna contact, external antenna, antenna switch, filter, coupler, uem, rx, tx, PFO, Amp.If ic /hagar diagram, problem, solution, tips)
- f) RAM, FLASH, NAND DATA SECTION(function of RAM , FLASH, NAND chip ,how its work, common problems and solution of ram & flash chip)

- g) SIM SECTION (Different pin of Simcard, memory of sim, Work of simcards, cutting of sim, small sim)
- h) AUDIO SECTION (practical explanation of mobile phone audio section, mic speaker, handsfree, etc not work etc, problem and solution of audio section)
- i) KEYPAD SECTION (Keypad IC, practical explanation, diagram, problem, solution)
- j) DISPLAY SECTION (practical explanation, diagram, problem, solution)
- CPU SECTION (work of cpu, common problem & solution of cpu section)
- CLOCK, RTC SECTION (work of clock chip, supply of clock frequency to chip, common problem and solution of clock section)
- BLUEETOOTH, IRDA, WIFI SECTION (work of bluetooth, irda, wifi, common problems of bluetooth, irda and wifi section)

2.3 DIFFERENT MOBILE OPENING AND STUDY CIRCUIT WITH DIFFERENT SECTION

- (nokia, samsung, sony, china, etc)
- Understanding block diagram of models, different chips, schematic diagram, understanding problem and solution diagram, complains, solution, tips)

2.4 UNDERSTANDING MOBILE PROBLEMS AND SOLUTION WITH FLOW CHART

- Flow chart of mobile repairing troubleshooting
- Mobile shorting finding steps, Mobile connector shows open circuit
- Mobile doesn't power on, Mobile not charging, When calling mobile switch off
- Mobile power on but restart, Mobile hang up, Mobile power on but no display
- Mobile phones no network, Mobile one band come other not
- Mobile on but keypad not work, Sim not accepted in mobile
- Sim not valid, Insert correct sim, Bluetooth not work, WIFI not work

2.5 REPAIRING AND PRACTICE OF MOBILE

- Step of repairing, Cold/ warm testing method, Schematic diagram tracing
- Tools & instrument use demo,
- Micro iron & soldering iron practice,
- Removing & installing chip
- socket and connector practice
- Jack changing (battery connector, sim, charging, handsfree)
- Big ic removing practice, Micro iron jumper practice, Jumper practice, Ic's rebolling concept, BGA ic removing, rebolling, replacements
- Driver chip changing, PFO/ PA changing, Tracing and fault finding
- Track reading thru circuit diagram
- Track checking on mobile phone
- Mobile phone physical testing

2.6 MOBILE PHONES REPAIR TESTING METHOD PRACTICE

- NOKIA MODELS, SAMSUNG MODELS, CHINA MODELS, SMARTPHONE SMALL MODELS

- OTHER MODELS
 - STUDENTS MOBILES
- NOTE:-(depend on models come on repairing or available)**
- TIPS AND DIAGRAM OF DIFFERENT MODELS,

MODULE M3

MOBILE SOFTWARE REPAIR AND TROUBLESHOOTING

3.1 FUNDAMENTAL OF MOBILE SOFTWARE

- Basic downloading concept
- Bluetooth, wifi, mem card, cable
- Copy contacts of mobile
- Symptoms of mobile software
- Totally dead hardware ok, hang up, restart, screen blink, no display, no network, bluetooth problems, etc
- Latest devices for repairing mobiles phones
- Different types of unlocking device
- Repairing mobile thru software
- Types of cables used in mobiles
- Usb rj45, data cables, USB cables,

3.2 MOBILE PHONES SECRET CODES,

- NOKIA, SAMSUNG, CHINA, LG, SONY

3.3 DIFFERENT MOBILE SOFTWARE UPGRADING DEVICE

- NOKIA MOBILE PHONES DEVICE (UFS/HWK, JAF, MXBOX, CYCLONE, ATF)
- SAMSUNG MOBILE PHONES DEVICE (UFS/HWK , Z3X , ASAN SAM, SPT)
- LG MOBILE PHONES DEVICE (UFS/HWK , OCTOPUS, Z3X,)
- SONY MOBILE PHONE DEVICE (SE TOOLS)
- CHINA MOBILE PHONE DEVICE
- 1st generation (spiderman)
- 2nd generation(dragon, avatar, MTK , UCT, hyper box, t-box)
- 3rd generation (scorpio, chinaking, mobile doctor v.2, volcano)
- software change, upgrading downgrading, error solution, reset, hard reset, soft reset, Unlocking, hanging solution, network troubleshooting with software
- Reset codes of different mobile, Changing contrast, language of mobile

3.4 NOKIA FLASHING STEPS (UFS, ATF)

- Connecting mobile with device thru cable and box
- Models (DCT3, DCT4, WD2, BB5)
- Files(MCU,PPM, CNT, PM)

3.5 SAMSUNG MOBILE FLASHING STEPS (UFS, Z3X, SPT)

- CPU TYPES:- (ONE-C, TRIDENT, M46,SWIFT, SKY/INF,QC/BCM,OTHER), MODELS, FILES

3.6 CHINA MOBILE FLAHSING STEPS(DRAGON)

- CPU TYPES:- (MTK, SPREADTRUM, MSTAR, COOLSAND, RDA, ETC)concept

MODULE M4

ADVANCE MOBILE SMARTPHONE APPLICATION & SOFTWARE REPAIR TROUBLESHOOTING

MODULE 4.1

SMARTPHONE MOBILE APPLICATION DOWNLOADING, RESTORE DATA

4.1 TYPES OF SMARTPHONE OPERATING SYSTEMS (OS)

- (Android, Symbian, Apple iOS, RIM BlackBerry, MeeGo, Windows Phone, and Bada)

4.2 DIFFERENT MOBILE OPERATING SYSTEMS (OS)

- ANDROID (HTC,Samsung, Motorola, intel , etc)
- IOS (Apple iPhone, iPod Touch, iPad)
- RIM (black berry os)
- SYMBIAN (Fujitsu Nokia, Samsung (old model), Sharp, and Sony Ericsson)
- DIFFERENT VERSION/ EDITION OF OS.
- ANDROID DIFFERENT O.S (4.3 kitkst, 4.1.x Jelly Bean, 4.0.x Ice Cream Sandwich, 3.x.x Honeycomb, 2.3.x Gingerbread, 2.2 Froyo, 2.0, 2.1 Éclair , 1.6 Donut, 1.5 Cupcake)
- IOS DIFFERETN VERSION (3.1.3 , 4.2.1 , 5.1.1 , 6.0 7.0. 8.0)
- RIM black berry different version (4.5 , 4.6, 5.0, 6.0, 7.0, 7.1 10.0)

4.3 COPY CONTACT, PHOTOS, OF PHONES TO PHONES/COMPUTER IPHONE(ITUNES)

- Installing i-tunes, Use of itunes steps, Backup & restore of device, Data message contact , images and other data, Application installation, Upgrading firmware

BLACKBERRY (DESKTOP MANAGER)

- Installing desktop manager software, Backup & restore device data ,
- message contacts, images and other data to computer and from computer to device
- upgrading firmware through desktop manager

SAMSUNG (KIES)

- Installing kies, Backup & restore device data, message contacts, images and other data transfer to computer and from computer to device
- installing android application, upgrading firmware through kies

NOKIA (PCSUITE / OVI SUITE)

- Installing pc suite/ ovi suite, Backup & restore device data ,
- message contacts, images and other data to computer and from computer to device
- Windows Mobile users (Samsung Omnia or HTC HD2, use Microsoft's Device Center)
- DOWNLOADING APPLICATION IN SMARTPHONE MOBILE

SMARTPHONE MOBILES SOFTWARE REPAIR AND UNLOCKING

4.4 APPLE IPHONE

- Difference between iphone models 3g, 3gs, 4g, 4gs, 5, 5g, 5s, 5c, 6
- Installing I-Tunes & updating firmware of Apple Phone,
- What is jailbreak, Jailbreak Apple phone

IPHONE FLASHING AND JAIL BREAK STEPs

- How to check iphone models version a0126
- Redsnow use, Tiny umbrella use
- Firmware version for different iphone models 2g, 3g, 3gs, 4g, 5, 5s, 5c, 6
- Ipad baseband types, difference between iphone base band version,
- how to check iphone carrier

4.5 BLACKBERRY UPGRADING AND UNLOCKING PROCESS

- Blackberry different os 4.5 , 4.6, 5.0, 6.0, 7.0, 7.1 10.0
- Secret codes of black berry
- Installing Desktop Manager and updating firmware on black berry
- software, version update,

- repair error 507, repair error 639 reset, repair jvm reload,
- how to pair device , black berry internet service (BIS),
- black berry models unlocking,steps
- boot loader repair,
- recovery mode repair, black berry
- how to WIPES a black berry device
- known usb error, 507 error, 513 error 523, restarting loop, connecting jvm, connecting arm error, blinking red light for all blackberry

4.6 SAMSUNG ANDROID SMART PHONE UPGRADING AND UNLOCKING PROCESS

- Android uploading custom rom, upgrading
- downgrading, how to install custom recovery, how to unlock
- boot loader, changing base band, SPT flashing
- ODIN use upload files thru ODIN

4.7 WINDOWS MOBILE PHONE SOFTWARE REPAIR CONCEPT (video)

- windows mobile: unlocking , upgrading, downgrading, changing rom,
- go to different os 6, 6.1, 6.5, windows 7, windows 7.5 mango os,

4.8 HTC MOBILE SOFTWARE CONCEPT(video)

- Secret codes of htc mobile phones
- Using Mxkey for HTC unlocking
- Mxkey (advance), Brute force unlocking sl3,
- Sim lock data repair, IMEI repair, htc unlocking advance,

4.9 WEBSITES LINKS FOR DOWNLOAD FIRMWARE & TIPS

Android, nokia, apple , blackberry, application and fun software collection, firmware collection sets after course

MODULE M5

ADVANCE MOBILE REPAIR AND TROUBLESHOOTING

ADVANCE SMART PHONE REPAIRING TRAINING

5.1 INTRODUCTION OF SMARTPHONE MODELS

(SAMSUNG ,APPLE IPHONE,BLACKBERRY, HTC, MOTOROLA, LG, SONYERICSON, NOKIA, ETC)

- Block Diagram of Apple and Blackberry Phone
- Different smart phone models common problems and solution tips
- Schematic diagram of different models, Opening and closing of high end models

5.2 TROUBLE SHOOTING STEPS OF SMART PHONE REPAIRING

- Common fault and solution of fault in Smartphone,
- Advance mobile circuit and faults finding
- Mobile troubleshooting of high end mobiles
- Replacing Touching Screen in Smartphone
- Troubleshooting Network section in Smartphone
- Troubleshooting Audio Section in smartphone models
- Troubleshooting Charging Section in smartphone models
- Troubleshooting Power on failure in Smart phones
- Smartphone Repair Case

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