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ALL PCB Repairing Course

AC, Fridge, Washing Machine, Microwave

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vsai.in

Presented By

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Course Overview

Practical classes

- We provide practical class to srudents from Day 1
- Students are provided with PCB from institution without extra charge
- There is no time limit for students to use the practical class

Theory Classes

- Trainers with over 23+ years of experience
- Doubt clearing sessions
- Classes uses the modern facility

- This complete PCB Repairing Course for AC, Refrigerator, and Washing Machine is designed to train students from zero level to advanced chip-level repairing. The course covers both inverter and non-inverter PCBs, including clear methods to identify inverter vs non-inverter boards used in modern appliances.

- Students learn all 22 major electronic components, their identification, function, and damage checking techniques. Training includes board supply checking, PCB reading and circuit tracing, and fault finding using error codes. Each critical section is explained in detail, such as power supply, sensor circuits, fan section, EPROM programming, communication section, and control logic.

- The course emphasizes practical tracing and repairing, advanced diagnostics using DSO (Digital Storage Oscilloscope), PCB matching, and equivalent component selection. Special focus is given to IPM testing, working principles, and IPM replacement, ensuring students gain real-world repair confidence.

- By the end of the course, students are fully capable of diagnosing, tracing, and repairing appliance PCBs at component and chip level, enabling them to start or upgrade a professional electronics repair career or business.

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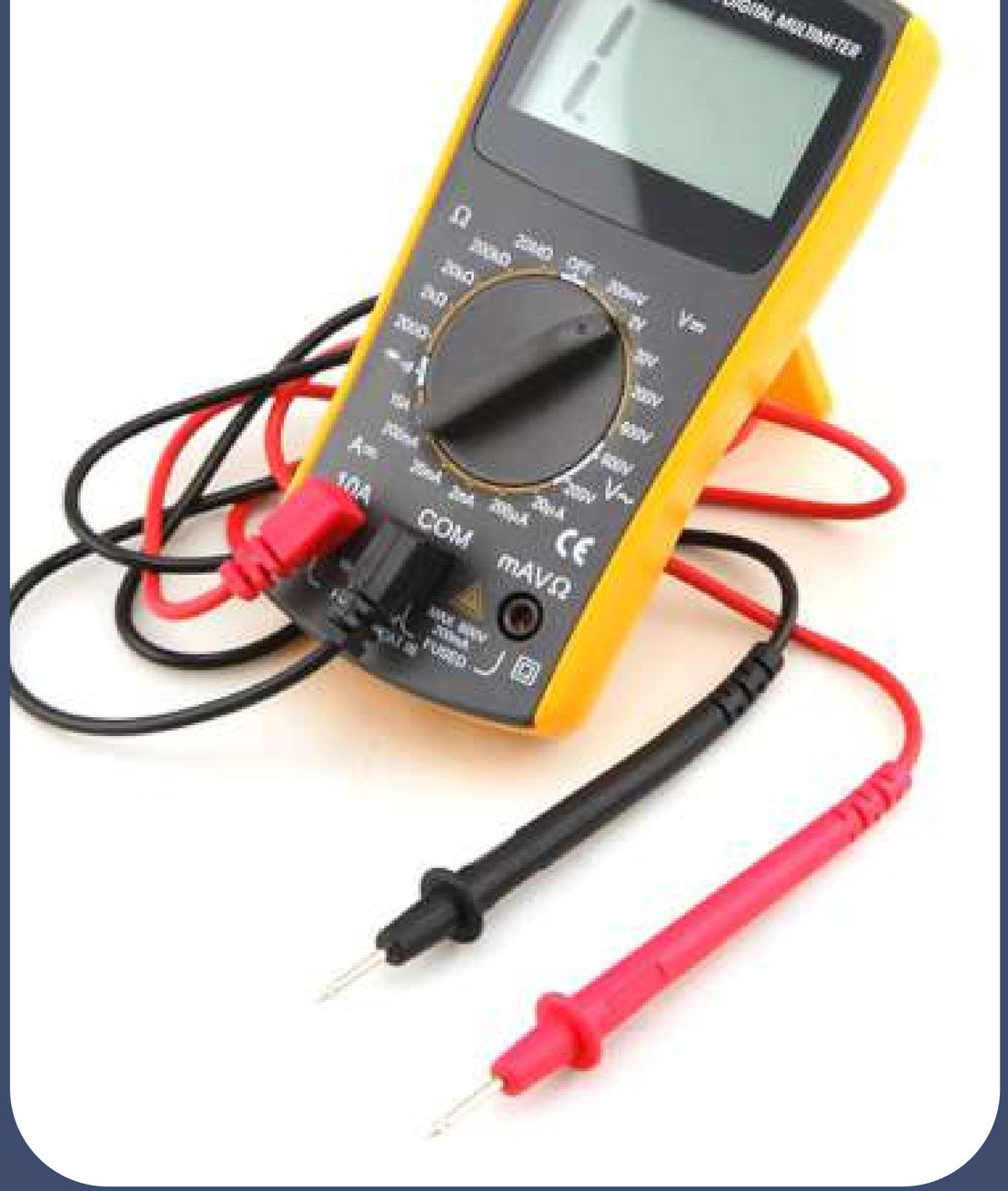
SYLLABUS

Basic electronics

- Introduction of (Volt, current, watt)
- Introduction of (AC/DC)
- How to use digital multimeter

Identification of electronics component

- Resistor, capacitor, transistor, mosfet, diode, crystal, IC, transformer, Fuse, Jumper, Thermistor, switch, Coil etc.



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resistor

- Denoting letter of resistor
- Identification & testing
- Color coding concept
- SMD resistor value
- Types of resistor

capacitor

- Denoting lettter of capacitor
- What is a Capacitor
- Types of capacitor
- Capacitor testing

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Diode

- Denoting letter and symbol of diode
- Working concept of diode
- Types of diode
- Bridge rectifier Diode
- concept Testing of Diode

Transistor

- Denoting letter and symbol of transistor
- Working concept of transistor
- Types of Transistor
- SMD and normal transistor
- identification Testing of transistor

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Mosfet

- Denoting letter and symbol of Mosfet
- Working concept of Mosfet
- Types of Mosfet
- Testing of Mosfet

Coil

- Denoting letter and symbol of coil
- Looking concept of coil (Inductor)
- Types of coil
- Testing of all types of coil

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IC/CHIP

- Identification of IC
- Working concept of IC
- Testing of IC on board

Transformer

- Denoting letter and symbol of transformer
- Working concept of transformer
- Types of transformer
- Testing of transformer

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Crystal

- Symbol of crystal
- Working concept of crystal
- Testing of crystal

Fuse

- Denoting letter and symbol of Fuse
- Working concept of fuse
- Workig of Fuse

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Thermistor

- Denoting letter and symbol of thermistor
- Working of thermistor
- Types of Thermistor
- Testing of Thermistor

Varistor

- Denoting letter and symbol of Varistor
- Working of Varistor
- Testing of Varistor

Thermistor

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Battery

- Working concept of battery
- Testing of battery

Switch

- Jumper
- Connector
- Regulator IC
- Opto coupler
- Relay

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Main electronics components and parts

- Compressor
- AC/DC motor
- Contractor
- Relay
- Regulator IC
- TRIAC
- SSR - Solid state Relay
- Biopolar liner IC
- 7 sement LED display
- Buck converter IC
- IGBT - Insolated Gate Biopolar Transistor
- IPM - Intelligent/Inverter Power Module
- PFCM - Power Factor Corretion Module

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Soldering & De-soldering Practice

- How to remove & sold all types of components in E-vehicle like ~ Resistor, Capacitor, Diode, Transitor, Mosfets, etc.

Basic of AC

- About details of AC types
- What is Ton in AC system
- How to calculate best AC ton for room size
- Details of non-inverter AC Details of inverter AC

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Types of AC

Window AC

Mechanical Section

- Window AC section details
- Fan motor
- Compressor
- Capacitor
- Swinger blade

PCB section

- Power supply (SMPS, LINEAR, BUCK CONVERTER)
- Regulation
- Relay section
- Micro controller
- Thermistor
- Power relay
- Display/Keypad/IR/induction
- Buzzer beep sound

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Split AC

- Mechanical Section
- Non inverter section
- Indoor unit
- Outdoor unit
- Power/SMPS
- Regulation
- Relay
- Swinger blade
- Power Relay
- Micro controller
- BIOS/Crystal
- Display/Indication/Keypad/IR
- Connection
- Connector
- Outdoor fan
- Compressor

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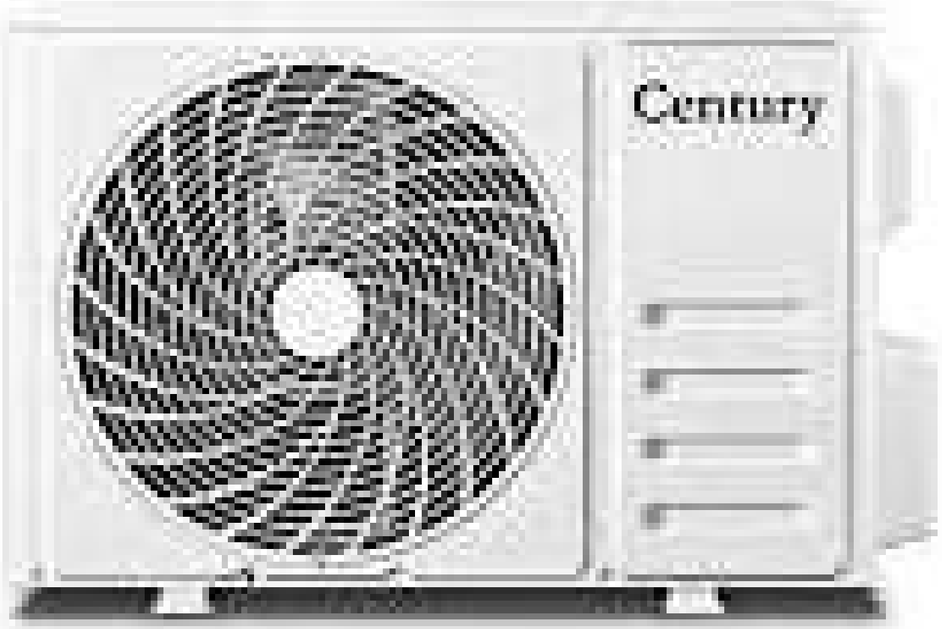
Inverter AC

- Connector
- Split AC indoor and outdoor
- Power supply
- Regulatin
- DC fan motor
- Controller
- Crystal/BIOS

IDU details

- Bipolar cleaner IC
- Display / IR / Keypad / Indication
- Swinger motor
- Thermistor
- Communication section



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Outdoor Section

- Power Supply Regulation
- PFC section
- Micro Controller(BIOS/CRYSTAL)
- Sensor Inverter section
- Communication
- Compressor
- Fan Motor

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Call for DEMO

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Instagram

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