

Course Code: EITS - 111		
Course Title: Maintenance and Repair of Home Appliances– II		
Number of Credits: 03	Total Hours: 42	Total Marks: 75
Prerequisites for the course		
Basic knowledge of working of home appliances devices		
Objectives of Course		
This course is intended to provide the knowledge of home appliances devices, their working principle and some basic troubleshooting procedure.		
Course Content		
Unit I	UPS/Inverter	10 Hours
Working principle, specifications, block diagram. Types of inverter and UPS. Various types of batteries used in UPS and Inverters and their maintenance.		
Unit II	SMPS	4 Hours
Block Diagram of Switch mode power supplies and their working principles, main parts.		
Unit III	Washing Machine	8 Hours
Working principle, types of machines, washing techniques, working of motors, different types of timers, power supply circuits.		
Unit IV	Microwave oven	4 Hours
Working principle, Different types of oven, study the various functions of Oven, Electrical wiring diagram of microwave oven, working of Power supply		
Unit V	Induction cooktops	6 Hours
Working Principle of Induction cooktops, eddy current, electrical induction, Advantages of induction cooktops, the limitations of induction cooktop.		
Unit VI	OTG	4 Hours
Working of OTG, Internal parts of OTG, heating principle, Control knobs: Timer, temperature. Wiring diagrams.		
Unit VII	Dish TV and CCTV	6 Hours
Working of CCTV and DISH TV, Antenna of Dish TV, Set top box, LNB, Types of cameras, DVR		
Pedagogy		
Lectures/Tutorial/Assignments/		
Course Outcome		
On completion of the course, students will be able understand the working principle of home appliance devices. Student should be able to identify the various faults leading to non-working of the device.		
References/Readings		
<ol style="list-style-type: none"> 1. Troubleshooting and Repairing Major Appliances Hardcover by Eric Kleinert 2. Complete Guide to Home Appliance Repair Hardcover – June 1, 1990 3. Electrical Appliances: The Complete Step-by-step Guide to the Repair and Maintenance of a Wide Range of Domestic Electrical Appliances (Haynes for Home DIY) Paperback – January 1, 1995 by Graham Dixon. 4. Handbook of Repair and Maintenance of Domestic Electronics Appliances Paperback by Shashi Bhushan Sinha. 		