IVA022 ELECTRONIC CIRCUITS MAKING AND PCB DESIGN L T P C
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COURSE OBJECTIVES:

The students are trained to,

- Know the need for PCB Design, steps involved in PCB Design and Fabrication Process.
- Design a schematic/layout PCB for analog circuits, digital circuits and mixed circuits.
- Design an integral part of electronic products by understanding the PCB design.
- Design an electronic printed circuit board for a specific application using industry standard software.

LIST OF EXPERIMENTS:

1. Overview on PCB designing flowchart.
2. Introduction to the materials required for the fabrication of PCB's.

Simulations of PCB using any EDA tools:

3. Design PCB for CE or CB or CC Amplifier circuits using discrete components.
4. Design PCB for full adder using Logic gates.
5. Design PCB for Positive Voltage Regulator using 7805 & 7812 IC.
6. Design PCB for flashing LEDs using 555 IC.
7. Design PCB for Fan Regulator.
8. Design PCB for Liquid Level Controller.

PCB Designing and Analyzing practice (Hardware):

9. Development of PCB for any basic electronic circuit.
10. Design of PCB for different sensor modules.

TOTAL: 15 HOURS

COURSE OUTCOME:

At the end of the course, students will be able to

- Analyse the fabrication process of printed circuit boards.
- Make comprehensive use of technical knowledge gained from the course.

REFERENCES:

R1. RS Khandpur, "Printed Circuit Board", Tata McGraw Hill Education Pvt Ltd., New Delhi
R2. S D Mehta , "Electronic Product Design Volume-I", S Chand Publications.
R3.http://www.wikihow.com/Create-Printed-Circuit-Boards
R4.http://www.siongboon.com/projects/2005-09-07_home_pcb_fabrication/
R5.http://reprap.org/wiki/MakePCBInstructions#Making_PCBs_yourself