Course code: Course Title	Course Structure			Pre-Requisite
EC106: Electronics Workshop II	L	T	P	NIL
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Course Objective: The objective of the course is to impart practical knowledge to the students about electronic components, circuits, and electronic instruments. This course on Electronic Workshop will enable students to get a good opportunity for beginning their professional career even at the end of first year.

S. No	Course Outcomes (CO)
CO1	Design different types of printed circuit boards.
CO2	Demonstrate different components of a computer, various peripherals, and internal circuit component.
CO3	Design and modify a product by building an actual power supply.

S. No	Contents

UNIT 1	Printed circuit board: Learn to make a layout of electronic circuit using any PCB design software (OrCAD/TINA/ KiCAD/ DesignSpark PCB/ any other available software), Use of electronic components in the layout, Perform small jobs such as making a circuit on the PCB and learn soldering of components on PCB.
UNIT 2	Identification of various peripheral devices of computer: Identify various peripheral devices including a keyboard, mouse, printer, and flash drive of a computer.
UNIT 3	Disassembling of computer: Study of motherboard, Identification of various hardware peripherals like RAM, ROM and Processor, Study of various ports in a computer for interaction with computer.
UNIT 4	Product Development (Part 1): Study the basic circuit of variable DC power supply, Procure all the components required to build a DC supply like transformer, diodes, capacitor, resistance, potentiometer, on/off switch etc. for given specifications of DC power supply, Test each component.
UNIT 5	Product Development (Part 2): Design a PCB for variable DC power supply, Fabricate the variable DC power supply by assembling all the components on PCB and perform soldering, Test the fabricated variable DC Power supply.

REFERENCES		
S.No.	**Name of Books/Authors/Publishers**	**Year of Publication / Reprint**
1		
2		
3		

B. Tech. Environmental Engineering