

GUJARAT TECHNOLOGICAL UNIVERSITY

B.E Semester: 4

Electrical Engineering

Subject Code 140903

Subject Name Electrical and Electronics Workshop

Sr.No	Course content
1.	Exposure to different types of electrical accessories like types of switches, types of lamps, wires and cables
2.	Identification and use of Electrical and electronics components and laboratory tools
3.	Soldering Practice and fabrication of D.C Power supply circuits on General Purpose PCB/bread board.
4.	Fabrication of comparator circuit/square wave generator using 555 Timer/IC 741 on general purpose PCB and bread board.
5.	Importance of Neutral and structure Grounding and exposure to various earthing schemes.
6.	Exposure to different types of illumination equipments Viz. (various lamps sodium high pressure mercury vapour lamp, CFL, LED etc (which may include Commercial illumination schemes and a typical illumination scheme).
7.	Realization of different types of wiring systems like tube light wiring, staircase wiring along with the protection elements like fuse, MCB, ELCB etc.
8.	Different faults in domestic appliances like automatic iron, mixture, Oven, washing machine and repairing of the same. Application of Tester and Test Lamp for fault finding in Electrical Systems.
9.	Assembling and disassembling of D. C. Machine, single phase motor and its meggering.
10.	Assembling and disassembling of single phase transformer and its meggering.
11.	Assembling and disassembling of three phase induction motor and its meggering.
12.	Demonstration of distribution system for domestic wiring/commercial wiring
13.	Calibration of Energy meter.
14.	Introduction to DOL starter with power circuit and its control circuit
15.	Introduction to STAR-DELTA starter with power circuit and its control circuit
16.	Study of electric shocks and first aid treatments.