I Year I Semester	L	T	P	C
Code: 20ES1102	0	0	3	1.5

ELECTRICAL ENGINEERING WORKSHOP

Course Objectives:

1. Identification of various electrical equipment tools
2. Operation of various electrical power sources and measurement of various quantities in electrical and electronic circuits
3. Making of various wire joints, connections for house wiring and simple lightning circuits
4. Design of different electrical protective equipment and to make compact electrical circuits using modern tools

Course Outcomes:

1. Distinguish various electrical equipment and tools.
2. Examine various quantities and elements of electrical and electronic circuits.
3. Differentiate various domestic wiring connections.
4. Choose appropriate protective devices for a given electrical circuit.
5. Design compact electrical and electronic circuits using basic tools.

List of Compulsory Experiments:

1. Identify various electrical components and tools used in electrical engineering.
2. Investigate the usage of various electric power sources.
3. Measurement of electrical quantities using measuring instruments.
4. Visualize the electric quantities using Digital Storage Oscilloscope / Cathode Ray Oscilloscope.
5. Assortment of wire joints for electrical wiring.
6. Build wiring for a house using SPST and SPDT switches.
7. Construct wiring for warehouses (Go down wiring).
8. Develop wiring for the lighting system using series and parallel connections.
9. Demonstrate protective equipment used in electrical engineering (Fuses, MCBs and Earthing).
10. Soldering of simple electrical circuits.

Text Books:

1. Electrical Workshop, R.P. Singh, I.K. International Pvt.Ltd.2007.
2. Experiments in Basic Electrical Engineering by S.K. Bhattacharya, Rastogi-NAI.

Reference Books:

Electrical design Estimating and Costing by K.B. Raina & S.K. Bhattacharya.
Residential and Commercial industrial electrical systemsVol.2 by Joshi.TMH.
Residential and Commercial industrial electrical systemsVol.3 by Joshi.TMH.
Industrial Safety management by Deshmukh-TMH.