Basic Electrical Engineering Laboratory [As per Choice Based Credit System (CBCS) scheme] SEMESTER – I/II			
Course Code	**18ELEL17/18ELEL27**	**CIA Marks**	**40**
Number of Lecture Hours/Week	**2P**	**SEE Marks**	**60**
Total Number of Lecture Hours	**32**	**Exam Hours**	**03**
Credits – 01			

Orientation class for an exposure to:

- Resistors, capacitors and inductors, types of wires, measuring instruments – voltmeter, ammeter, wattmeter, multi-meter, oscilloscope, transformer, dc motor, synchronous generator, three phase induction motor etc.
- Basic safety precautions while dealing with electricity.

List of experiments:

1. Verification of KVL and KCL for DC circuits.
2. Measurement of current, power and power factor of incandescent lamp, fluorescent lamp, CFL and LED lamp.
3. Impedance calculation and verification for R-L and R-C circuits- using decade boxes.
4. Load test on a single phase transformer.
5. Voltage and Current relationships of three phase star/delta circuits.
6. Measurement of three phase power using two wattmeter method.
7. Speed load characteristic of a 3 phase induction motor.
8. Two way and three way Control of lamp and formation of truth table.

Demonstration Experiments (for CIE only):

1. Demonstration of fuse, MCB by creating a fault.
2. Demonstration of cut-out sections of electrical machines (DC machines, Induction machines and synchronous machines)

Laboratory Outcomes

- Get an exposure to common electrical components.
- Make electrical connections by wires of appropriate ratings.
- Understand the usage of common electrical measuring instruments.
- Understand the basic functioning of electrical machines.
- Understand two way and three way control of lamp.