Course Type	Course Code	Name of the Course	L	Т	Р	Credits
DP	EEC378	Power Electronics and Drives Lab.	0	0	2	2

## **Course Objective**

The objective of this lab is to introduce undergraduate students to the basic practical aspects of power electronics and electrical drives.

## Learning Outcomes

Upon successful completion of this course, students will develop:

- an idea about the working of power devices.
- an idea about the working of electrical drives.

Unit No.	Topics to be Covered	Laboratory Hours	Learning Outcome
1	Experiments on power semiconductor switches	2x2	Students will learn characteristics of power semiconductor switches
2	Experiments on rectifier and inverter circuits	2x2	Students will learn AC to DC and DC to AC conversion
3	Experiments on chopper circuits, and DC motor control	2x2	Students will learn DC-DC converters, and DC motor control
4	Experiments on speed control techniques of three-phase induction motors using voltage controllers	3x2	Students will learn different speed control techniques of three-phase induction motors using voltage controllers
5	Experiments on speed control techniques of single-phase induction motors using voltage controllers	1x2	Students will learn speed control techniques of single-phase induction motors using voltage controllers

## **Text Books**

1. Fundamentals of Electrical Drives by G. K. Dubey

2. Electric Drives Concepts & Applications - Vedam Subramanyam

## **Reference Books**

1. Modern Power Electronics and AC Drives by B. K. Bose.