

Course Type	Course Code	Name of the Course	L	T	P	Credits
DP	EEC376	Electrical Machines and Control Lab.	0	0	2	2

Course Objective

The objective of this lab is to introduce undergraduate students to the basic practical aspects of electrical machines and control system.

Learning Outcomes

Upon successful completion of this course, students will develop:

- an idea about the working of advanced electrical machines.
- an idea about the control system analysis.

Unit No.	Topics to be Covered	Laboratory Hours	Learning Outcome
1	Experiments on starting methods of 3-phase induction motor	2x2	Students will learn different starting methods of 3-phase induction motor
2	Experiments on speed control techniques of 3-phase induction motor	2x2	Students will learn different speed control techniques of 3-phase induction motor
3	Experiments on synchronous machines	2x2	Students will learn operational parameter calculation of synchronous machines
4	Experiments on control system using MATLAB/SIMULINK	2x2	Students will learn modelling of control system using MATLAB/SIMULINK
5	Experiments on transient analysis using MATLAB/SIMULINK	2x2	Students will learn transient analysis of control systems using MATLAB/SIMULINK.

Text Books

1. Electric Machines - Kothari & Nagrath
2. Electrical Machines - P. K. Mukherjee and S. Chakravorti

Reference Books

1. The performance and design of alternating machines - M. G. Say.