

Course Type	Course Code	Name of the Course	L	T	P	Credits
DSC	NEEC104	Basics of Electrical Engineering-II Lab	0	0	2	1

Course Objective

The objective of this lab is to introduce undergraduate students to the basic aspects electrical engineering in terms of electrical power system and electrical machines.

Learning Outcomes

Upon successful completion of this course, students will develop:

- an ability to understand the basics of electrical power measurement, speed control of DC motors and voltage development in DC generators.

Unit No.	Topics to be Covered	Laboratory Hours	Learning Outcome
1.	Experiments on Energy Measurements and Relay	2x2	Students will learn about basics energy meter and relay operation.
2.	Experiments on Single-phase Transformers	3x2	Students will learn about the experiments on Single-phase Transformers.
3.	Experiments on DC Generators	2x2	Students will learn about the functioning of DC generators.
4.	Experiments on DC Motors	3x2	Students will learn about the functioning of DC motors.

Text Books

1. Power System Engineering – D. P. Kothari and I. J. Nagrath (Tata McGraw Hill), 2nd Edition, 2015.
2. Electric Machines – D. P. Kothari and I. J. Nagrath (Tata McGraw Hill), 5th Edition, 2017.

Reference Books

1. Electrical Machinery – P. S. Bimbhra (Khanna Publ.), 2021.
2. Electric Machinery – A. E. Fitzgerald, Charles Kingsley Jr., S. D. Umans (McGraw Hill).