

# ELECTRICAL MACHINE- I Lab (EE491)

## (Room Number: 122)

### General information about the Laboratory:

This lab is used for EVEN Semester EE 2nd Year. Its approximate area is 918sq. ft and location is Ground floor (Room no – 122). Generally, we Conduct the lab with the strength of 30 students per Session .

## ELECTRICAL MACHINE- I Lab .

### CO's

<b>EE491.1</b>	Conduct different tests on Transformers and D.C. Machines.
<b>EE491.2</b>	Analyze the characteristics of Transformers, D.C. Machines.

### CO-PO MAPPING:-

SUBJECT CODE	COs	PROGRAM OUTCOMES(POs)											
		PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO10	PO11	PO12
EC492	EC492.1	2	-	-	3	-	-	-	-	3	2	-	1
	EC492.2	2	-	-	3	-	-	-	-	3	2	-	1
	<b>AVERAGE</b>	2	0	0	3	0	0	0	0	3	2	0	1

### CO-PSO MAPPING:-

SUBJECT CODE	COs	PSO 1	PSO 2
<b>EC492</b>	EC492.1	3	-
	EC492.2	2	2
	EC492.3	2	1
	<b>AVERAGE</b>	2.33	1

### Name of the Experiment Performed:

1. Heat-run test of a single-phase transformer.
2. Regulation and Efficiency of single-phase transformer by direct loading method.
3. Parallel operation of two single-phase transformer and find out the load sharing.
4. Efficiency of a single-phase transformer by Back-to-Back test.
5. Polarity test and vector grouping of a three-phase transformer.
6. Identification of different parts of a D.C. machine.
7. Voltage build-up of a D.C. shunt generator and find out critical resistance and critical speed
8. Brake test of D.C. series motor.

9. Brake Test of D.C. shunt motor.
10. Swinburne test of a D.C. shunt motor.
11. Load test of Differentially Compound D.C. Motor
12. Innovative Experiments.

#### LABORATORY IMAGES:

