1.	Title of the course	Electrical Machines Laboratory
2.	Course number	EE302P
3.	Structure of credits	0-0-3-2
4.	Offered to	UG
5.	New course/modification to	Modification To EE3193/8
6.	To be offered by	Department of Electrical Engineering
7.	To take effect from	July 2022
8.	Prerequisite	Nil
9.	**Course Objective(s):** To get an insight into the theory, principle of operation and performance of various classes of electric machinery such as generators, motors and transformers through laboratory experiments. The students are expected to validate the concepts learnt in the theory course in the laboratory through experimentation	
10.	**Course Content:** The following are the list of experiments: 1) Open circuit, Short circuit and Load tests on Single Phase Transformer 2) Separation of Losses in a Single Phase Transformer 3) Measurement of inrush currents and B-H loop of Single Phase Transformer 4) Study of Three Phase Transformer Connections and Harmonics 5) No load and Blocked rotor tests on Three Phase Induction Motor 6) Load test on Three Phase Induction Motor 7) Open circuit, Short circuit and Load tests on Three Phase Alternator 8) Infinite Busbar Loading and determination of Maximum power transfer capacity of Alternator 9) Performance characteristics of DC generator (OCC & Load test) 10) Load Test on DC Shunt Motor & Speed Control of Separately excited DC Motor	
11.	**Textbook(s):** 1. Kothari D P and Nagrath U, *Electric Machines*, McGraw Hill (2006).	
12.	**Reference(s):** 1. Chapman S J, Electric Machinery Fundamentals, McGraw Hill (2005). 2. Flitzgard A E, Kingsley C J and Umans S D, *Electric Machinery*, McGraw Hill (1983).	