PRINCIPLES OF ELECTRICAL ENGINEERING LAB

Course Code:22EE11D2

L	T	P	C
0	0	3	1.5

Course Outcomes: At the end of the course the student shall be able to
CO1: explain the operation and use of various laboratory equipment (L2)
CO2: apply Network Theorems for electrical circuits both theoretically and practically (L3)
CO3: assess the performance characteristics for AC Circuits and AC machines (L5)
CO4: assess the performance characteristics for DC machines (L5)
CO5: understand the components of LT Switchgear (L2)

List of experiments:

(Any TWELVE of the experiments shall be conducted)

1. Study and use of measuring instruments – voltmeter, ammeter, multi-meter, oscilloscope. Real-life resistors, capacitors and inductors.
2. Verification of Thevenin‟s and Norton Theorems.
3. Time Response of series RL and RC Circuits
4. Series Resonance
5. Load test on single phase Transformer
6. Determine the performance characteristics of a Shunt Motor.
7. Speed control of DC Shunt Motor.
8. Determine the load characteristics of a Shunt Generator.
9. Determine the load characteristics of a Single Phase Induction Motor.
10. Study and use of the LT switchgear.
11. OCC Characteristics of Synchronous Generators.
12. Determine the performance characteristics of a Compound Motor.
13. Determine the performance characteristics of a Series Motor.
14. Determine the characteristics of DC Servo Motor

Reference Books:

1. D. P. Kothari and I. J. Nagrath, *Basic Electrical Engineering*, Tata McGraw Hill, 3rd Edition, 2010.
2. D. C. Kulshreshtha, *Basic Electrical Engineering Revised,* 1st Edition, McGraw Hill, 2017.

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