Subject Code : PCEE-623
Title of the course : Power System Laboratory

L	T	P	Credits	Weekly Load
0	0	2	1	2

Course Outcomes:
After successful completion of course, the students should be able to
CO 1: analyze the performance of transmission line
CO 2: analyze the performance of various protective devices like relays and circuit breakers.
CO 3: be competent in use of static and digital relays.
CO 4: analyse the radial feeder performance.
CO 5: learn about different types of faults on transmission line.

CO/PO Mapping: (Strong(3) / Medium(2) / Weak(1) indicates strength of correlation):														
COs	Program Outcomes (POs)/Program Special Outcome (PSO's)													
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO 1	PSO 2
CO1	3	3	2	3	2	1	1	1	3	2	3	3	2	1
CO2	3	3	3	3	3	1	1	1	3	3	2	2	1	1
CO3	3	3	2	3	3	1	2	1	2	2	2	2	1	1
CO4	3	2	3	3	3	1	2	1	3	2	2	2	2	1
CO5	3	2	3	2	3	1	1	1	3	1	3	3	2	2

To understand the practicability of Electrical Power System. At least 10 experiments are to be performed out of the following list:

1. To analyse the performance of a transmission line and compute ABCD parameters.
2. To study the Ferranti effect in long transmission line using transmission line model.
3. To study the voltage distribution along the length of transmission line.
4. To study and plot the characteristics of IDMT over current and earth fault relay.
5. To study and plot the characteristics of IDMT under voltage and over voltage relay.
6. To determine the sequence impedance of a three phase transformer.
7. To determine the sequence impedance of an alternator by fault analysis and power angle characteristics.
8. To determine the phase sequence of 3 phase circuit using RC and two lamp method.
9. To analyse the radial feeder performance when
   (a) Fed at one end.
   (b) Fed at both ends
10. To study the performance of directional over current relay.
11. To study protection schemes used for feeder protection.
12. To study protection schemes used for transformer protection.
13. To study protection schemes used for generator protection.
14. To test the performance of Air circuit breaker under over current and earth fault conditions.
15. To test the performance of Vacuum circuit breaker under over current and earth fault conditions.