Course Name Power System-II Laboratory

Course Code EE692

Course Credit 2

Contact Hour 3P

Prerequisite Power System I(EE502)

Course Objective

The objectives of this course are

1. To familiarization to students to identify various type of relays.
2. The ability to conduct testing and experimental procedures to find different characteristics of different kinds of relay and instrument transformer.
3. To give a chance to students to practice different types of wiring and devices connections of relays.
4. The capability to analyze the operation of relays under different loading conditions.

Course Outcome

On completion of the course students will be able to

1. Analyze the testing, operation and response of protection of electrical instruments.
2. Troubleshoot the operation of relays, different types of distribution system.
3. Select a suitable relays for protection purpose of electrical instruments.
4. Conduct experimental investigation and gain knowledge of various parts of relays and instrument transformer.
5. Able to incorporate the measuring error with actual value and calibrate the instruments.
6. Enhance the capability of software analysis by load flow solution in ETAP.

CO Mapping with departmental POs

H: High, M: Medium, L: Low

	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12
CO 1	H	H	M	H	M							
CO 2				H	M							
CO 3	L	L		H	H							
CO 4	H	H	M	H								
CO 5			M	M	H							

Course Content

List of Experiments:

1. Test to find out characteristics of

   (a) Under voltage relay

   (b) earth fault relay.
2. Study of different characteristics of over current relay.
3. Test to find out polarity, ratio and magnetization characteristics of CT and PT.
4. Study on AC load flow using Gauss-seidel method
5. Study on AC load flow using Newton Raphson method.
6. Study of different transformer protection schemes by simulation.

7. Study of different generator protection schemes by simulation.
8. Study of different motor protection schemes by simulation.
9. Study of different characteristics of over current relay.
10. Study of different protection scheme for feeder.
11. Study on Economic load dispatch.