Course Name	Power System-I Laboratory
Course Code	EE592
Course Credit	2
Contact Hour	3P
Prerequisite	Basic Electrical Engineering (EE101 & EE 191) Electrical Machine I (EE401 & EE 491) Electrical Circuit theory and Networks (EE 301 & EE391)

Course Objective

The objectives of this course are

1. To allow students to practically verify several concepts and procedures learned in Power system modeling and analysis.
2. To develop hands-on experience of how certain procedures of power system operation are carried out
3. To carry out system studies of breakdown voltages of liquid and solid insulator.

Course Outcome

On completion of the course students will be able to

1. Understand how to measure electrical parameters characteristics of a 3-phase transmission line.
2. Understand the procedure and steps needed to implement of measure of earth resistance.
3. Understand and measure of the breakdown voltages of solid & liquid Insulator
4. Learn how to solve transmission losses in power network with changing of loads,
5. Familiarization and construct the design of 3 phases transmission line.

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	H	H	M	M								

Course Content

1. Determination of the generalized constants A.B, C, D of long transmission line.
2. Simulation of DC distribution by network analyzer.
3. Measurement of earth resistance by earth tester.
4. Dielectric strength test of insulating oil.
5. Determination of breakdown strength of solid insulating material.
6. Different parameter calculation by power circle diagram
7. Study of different types of insulator.
8. Schematic diagram of structure of power system and power transmission line.