

Name of the laboratory: POWER SYSTEMS

Objectives of the lab:

- Perform Testing Of Ct, Pt's And Insulator Strings
- To find sequence impedances of 3- Φ synchronous machine and Transformer
- To perform fault analysis on Transmission line models and Generators.

List of experiments:

1. Characteristics of IDMT Over Current Relay.
2. Differential protection of 1- Φ transformer.
3. Characteristics of Micro Processor based Over Voltage/Under Voltage relay.
4. Testing of CT, PT's and Insulator strings.
5. Finding the sequence impedances of 3- Φ synchronous machine.
6. Finding the sequence impedances of 3- Φ Transformer
7. Formation of YBUS.
8. Load Flow Analysis using Gauss Seidal (GS) Method.
9. Load Flow Analysis using Fast Decoupled (FD) Method.
10. Formation of ZBUS.
11. LG, LL and 3- Φ fault analysis of 3- Φ synchronous machine.
12. Power circle diagrams of a 3- Φ transmission line model.
13. ABCD constants and Regulation of a 3- Φ transmission line model

LIST OF EQUIPMENT

S.NO	DESCRIPTION
1	CHARACTERISTICS OF IDMT OVER CURRENT RELAYS
2	DIFFERENTIAL PROTECTION SINGLE PHASE TRANSFORMER
3	MICROPROCESSOR BASED UNDER VOLTAGE AND OVERVOLTAGE RELAY
4	TESTING OF 1.CT's 2.PT's 3.INSULATORSTINGS CONTROL PANEL
5	DETERMINATION OF SEQUENCE IMPEDANCES OF SYNCHRONOUSMACHINES
6	FINDING THE SEQUENCE IMPEDANCE OF THREE PHASE TRANSFORMER
7	LG , LL AND 3 PHASE FAULT ANALYSIS OF 3-PHASE SYNCHRONOUS MACHINE COMPLETE EXPERIMENTAL SET UP
8	POWER CIRCLE DIAGRAMS OF A 3-PHASE TRANSMISSION LINE MODEL
9	ABCD CONSTANTS AND REGULATION OF 3-PHASE TRANSMISSION LINE MODEL
10	THREE PHASE AUTO TRANSFORMER

