

POWER SYSTEM-II LAB (EEEC-351)

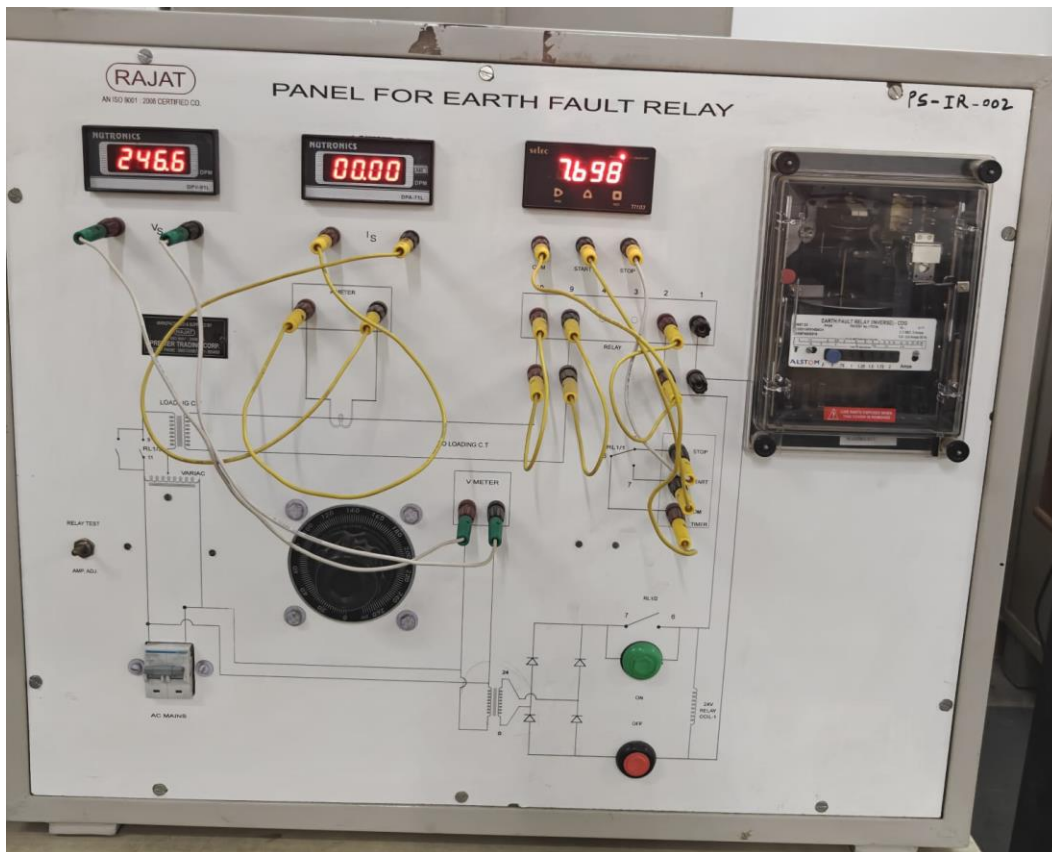
Learning Objectives:

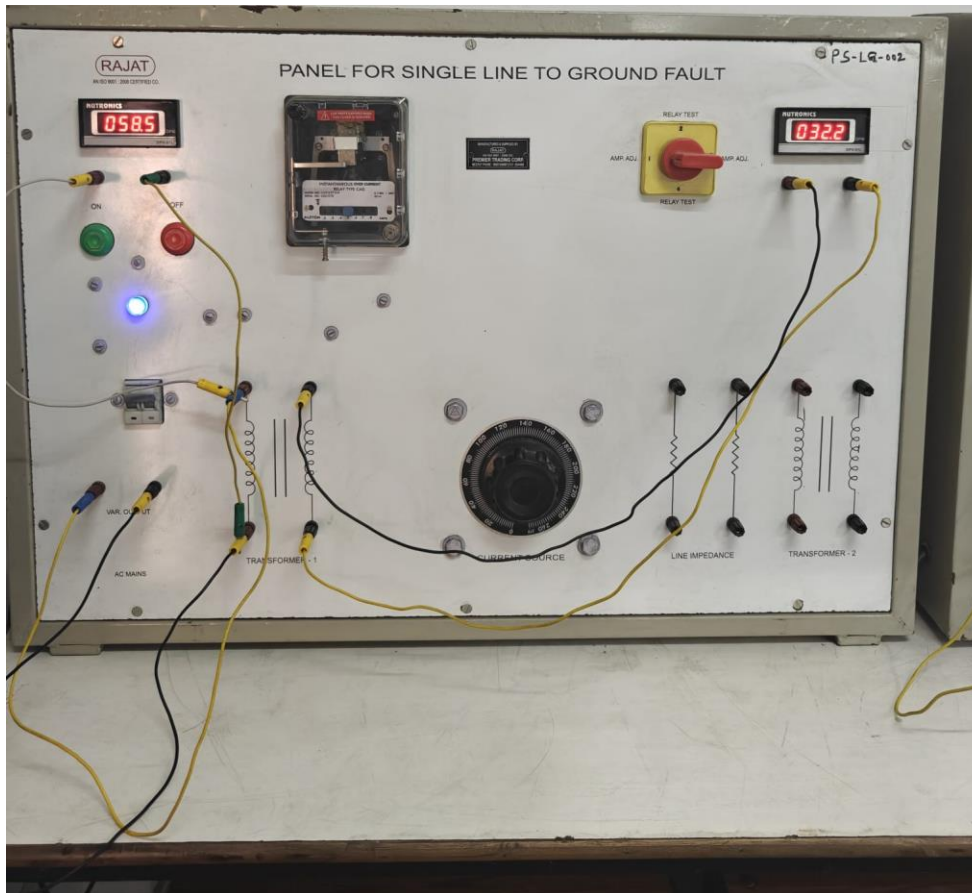
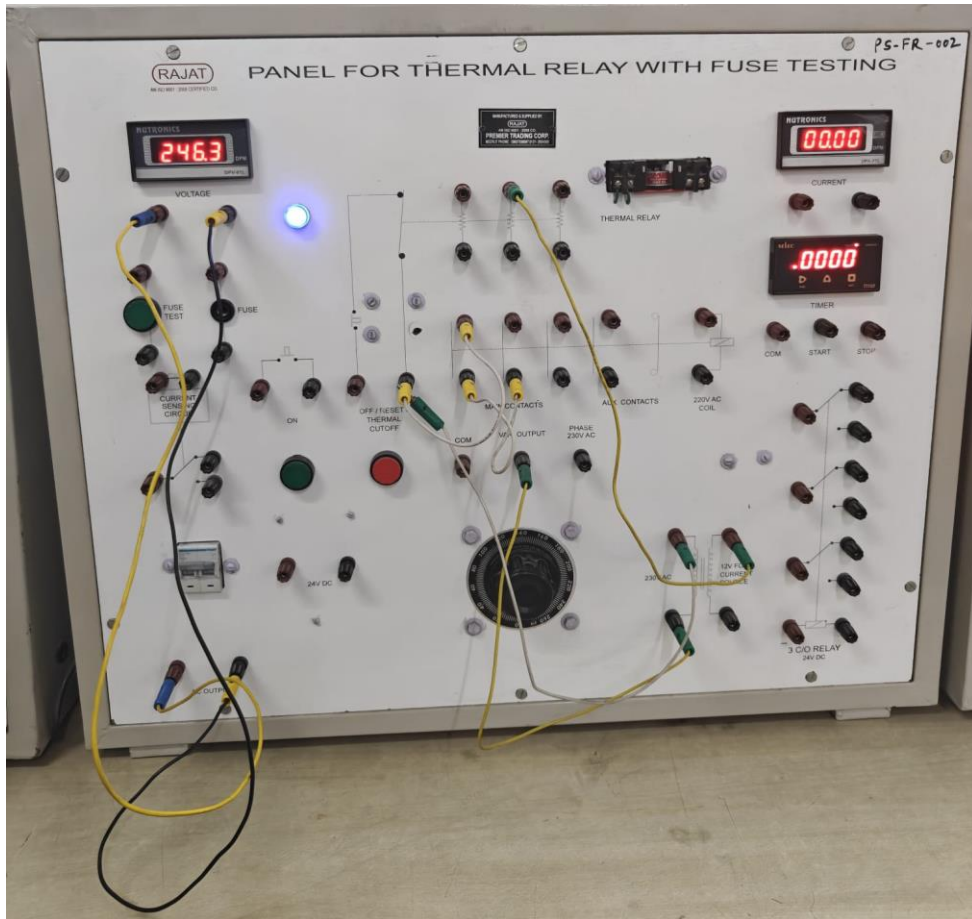
1. Understand the single line to ground fault and three phase fault in transmission line using experimental setup.
2. Analyse the characteristics of instantaneous over current relay using experimental setup.
3. Apply and analyse the characteristics of HRC fuse MCB using experimental setup.
4. Analyse the characteristics of thermal bimetallic relay and IDMT earth fault relay using experimental setup.

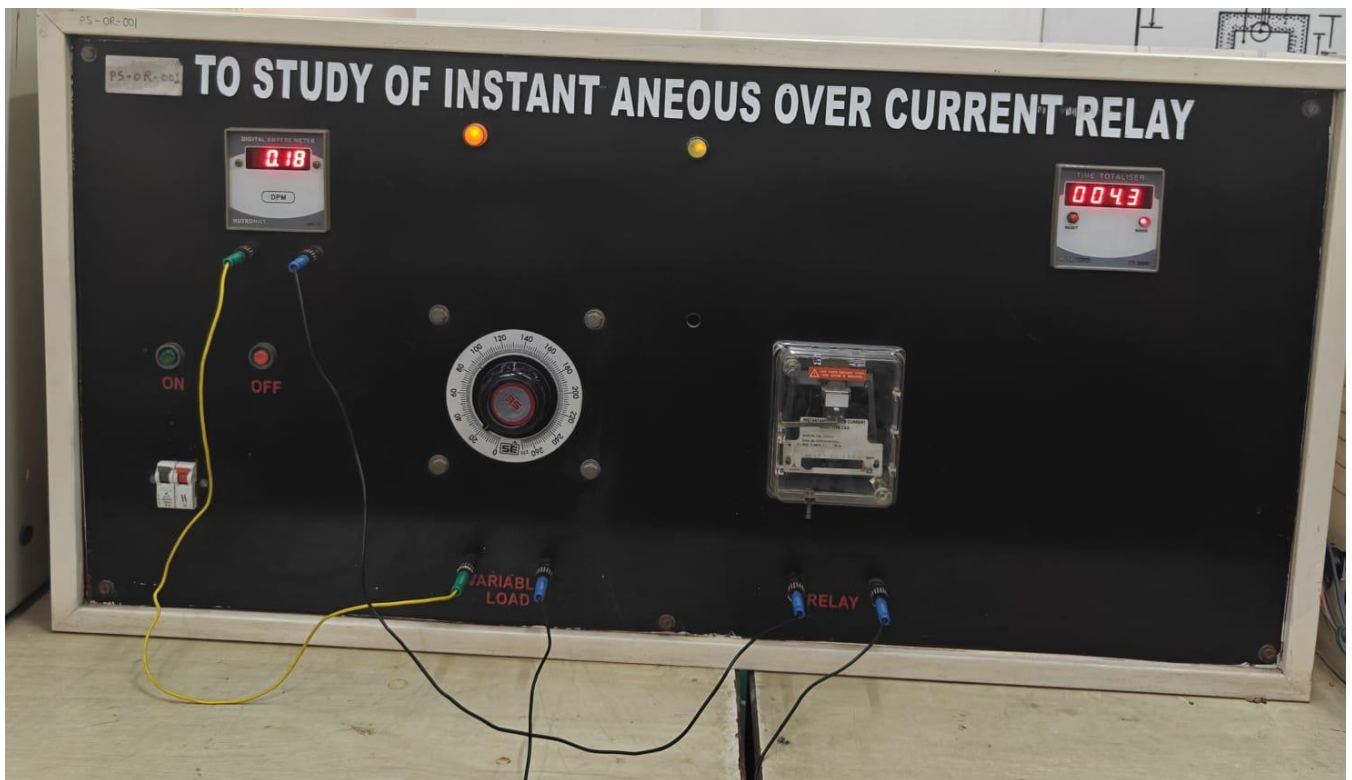
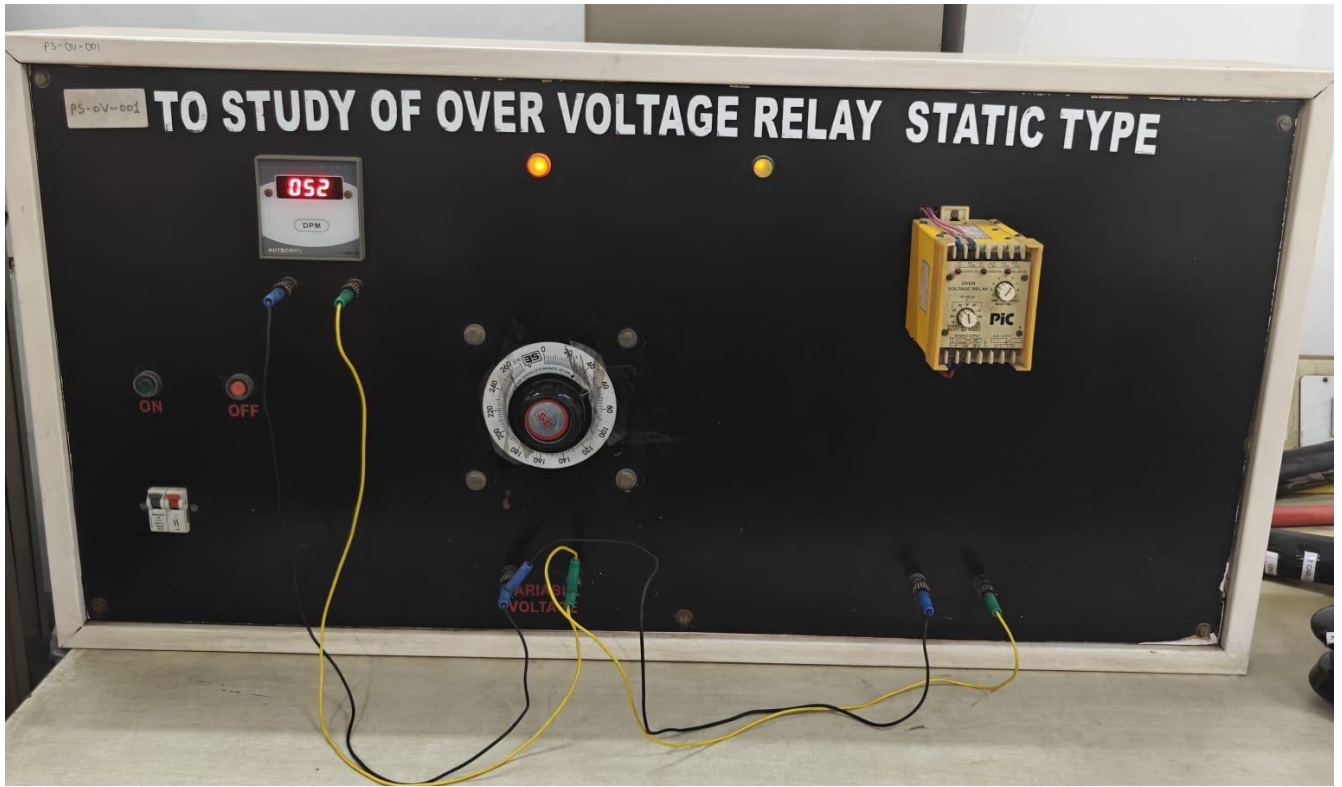
Key Equipment in Lab:

1. Experiment Setup Panel for performing operation of Earth Fault Relay.
2. Experiment Setup Panel for performing operation of MCB & Fuse.
3. Experiment Setup Panel for performing operation of Thermal Relay with Fuse Testing.
4. Experiment Setup Panel for performing operation of Single Line to Ground Fault.
5. Experiment Setup Panel for performing operation of Static Type Over Voltage Relay.
6. Experiment Setup Panel for performing operation of Instantaneous Over Current Relay.
7. Three Phase Transformer (440 Volt, 9 Amps).

Working Pictures:







Lab Overview:

Power Systems-II Laboratory is a practical lab where students test, analyse, and understand how electrical power systems behave in real-world conditions. It complements the theory taught in **Power System Engineering** and related areas like **Electrical Engineering**.

The main goals are:

- Understand **generation, transmission, and distribution** of electrical power.
- Study **faults and protection mechanisms** in power systems.
- Analyse **power flow, stability, and system performance**.
- Gain hands-on experience with **power system equipment and simulation tools**.
- Learn to operate **relays, circuit breakers, transformers, and transmission models**.

Students perform experiments to observe how power networks behave under different loads and fault conditions.