

## **Power Systems Lab**

### **LIST OF EXPERIMENTS**

1. Determination of receiving end quantities and the line performance of a medium/long transmission line using MATLAB
2. Develop a program code to determine the bus admittance matrix by inspection method.
3. Power flow solution by Newton-Raphson method using MATLAB.
4. Determination of steady state frequency error and frequency deviation response for an isolated power system.
5. Determination of a) steady state frequency error and change in tie-line power flow, b) frequency deviation response, for an interconnected power system.
6. Determination of sequence components (Positive, Negative and Zero) of an alternator.
7. Transient analysis of a single machine infinite bus system.
8. Simulation of LG, LL, LLG and LLL faults on a simple power system using PSCAD/MATLAB.
9. Plot V-I characteristics of solar panel at various levels of insulation.
10. Over current protection using numerical relay.