

## **GENERATION, TRANSMISSION AND DISTRIBUTION LABORATORY**



### **Objective of laboratory:**

- To understand the concepts of various methods of Electrical Energy Generation.
- To learn the usage of passive elements in various Power Transmission Systems.
- To understand the factors affecting Insulators and also in Under Ground cables.
- To calculate the various parameters in Distribution System.
- To learn critical mathematical calculations that are common to any overhead line design. Calculations such as transverse loading, conductor clearances, pole buckling and guying will be discussed in detail.
- Suggest methods for power factor improvement.
- To design a Transmission and distribution electric power system

### **Major Equipments In Generation, Transmission And Distribution Laboratory:**

- RING FEEDERS DIR OC PROT
- Transmission line DIST PROT
- FEEDER OC & E.I.D M.T.L Protection
- Generator MERZ-PRICE Protection
- Parallel Feeder DIR-OC-PROT
- Negative Sequence Network
- Positive Sequence Network
- Zero Sequence Network
- Transmission System Modeling(220 kV Grid)
- DC Network Analyze
- String Insulator
- Step up Transformer
- 3-Phase Power Drill Machine

### **Name of Officials handling the Laboratory :**

- Sh. Beant Singh Dhiman (till now)(WI)