

## **Laboratories of Electrical Engineering Department:**

### **Basic Electrical Engineering Laboratory:**

This laboratory is targeted to impart the basic knowledge of fundamentals in Electrical Engineering and its applications in other branches. This is common for all the branches and has several laboratory equipment such as Rheostats, Ammeters, Voltmeters, Transformers etc. Several laboratory experiments are performed in this lab.

### **Electrical Machines Laboratory:**

This laboratory is for higher semester students of Electrical Engineering branch. This lab is intended to give students an exposure to practical electrical machinery and their working. This lab is equipped with several electrical machinery like Transformers, three phase Induction Motors, Synchro-Generators, D. C. motors, Universal Motors etc. This lab provides a hands-on experience to the students and is also used by the students for their project work related to electrical machines.

### **Control System Laboratory:**

This laboratory is also for higher semester students of Electrical Engineering branch. This lab has several equipments used for designing of control systems. Lead-lag compensator design, stability analysis using Bode plot and Nyquist plot, stepper motor control, optimization of system to meet required time domain characteristics, Robotic-arm etc. are available in this lab. Some of the experiments are also performed using MATLAB.

### **Power System Laboratory:**

This laboratory is intended to give practical knowledge to the students to cover electrical power installation, insulation, power system design, over current relay, under voltage relay, high voltage testing equipment, DC network Analyzer, AC transmission and distribution network analysis, Fault analysis by using MatLab.

### **Power Electronics Laboratory:**

The objective of this laboratory is to prepare students, to design power electronics circuits as needed in the industries. This lab has several equipments required for the study and design of power electronic components. The lab is equipped with components such as Thyristors, BJT's, Oscilloscopes etc. required for design of choppers, inverters and other power electronic circuits.

### **Electrical Measurement laboratory:**

This laboratory is intended to give practical knowledge to the students to measure electrical quantities such as Resistances, Capacitances, Inductances, Active Power, Reactive Power, design of Ammeter, Voltmeter, Watt-meter etc. this lab is equipped with several electrical bridge circuits like kelvin's double bridge, Schering's bridge, measurement of unknown frequency etc.

### **Simulation lab:**

The simulation lab is equipped with several software likes MATLAB, Multisim etc. and is used for Computer Aided designing and analysis of electrical components.