POWER ELECTRONICS AND MAT LAB

1. Plot the Characteristics ofSCR

2.Plot the Characteristics of TRIAC.

3.Plot the Characteristics of IGBT and MOSFET

4.Study of the working of single phase half wave converter

5.Study of the working of single phase full wave converter

6.Study of the working of single phase full wave bridge converter

7.Speed Control of DC motor using single phase bridge converter

8.Speed Control of DC motor using chopper

9.Speed Control of 1-phase AC induction motor using AC voltage controller

10. Introduction to SIM Power Systems

11. Working with the different blocks of SIM Power Systems

12. Simulation of single phase full wave converter circuit using MATLAB

13. Simulation of three phase bridge converter circuit using MATLAB

14. Simulation of single phase bridge inverter circuit using MATLAB

15. Simulation of single phase AC Voltage Controller circuit using MATLAB

16. Simulation of bridge chopper circuit using MATLAB

INDUSTRIAL ELECTRONICS LAB

1. Perform an experiment to obtain VI characteristics of SCR

2. Perform an experiment to obtain VI characteristics of TRIAC

3. Perform an experiment to obtain VI characteristics of DIAC

4. Perform an experiment to obtain VI characteristics of UJT

5. construct UJT relaxation oscillator circuit and observe the output waveforms on CRO

6. Construct a circuit to trigger SCR by UJT and control output Power

7. Perform an experiment to plot the characteristics of Photodiode

8. Perform an experiment to plot the characteristics of Photo transistor

9. Perform an experiment to plot the VI characteristics of different colour LEDs & determine their cut-in voltages

10. Perform an experiment to plot the characteristics of LDR

11. Perform an experiment to plot the characteristics of Opto-coupler

12. Obtain the performance characteristics of LVDT by conducting an experiment

13. Obtain the performance characteristics of thermocouple by conducting an experiment

14. Familiarize with PLC tutor or PSIM

15. Implement basic gates and universal gates using PLC

16. Implement XOR, XNOR gates using PLC