



MOTHER TERESA

INSTITUTE OF SCIENCE & TECHNOLOGY

Permanently Affiliated to JNTUH, Hyderabad
Recognition under Section 2(f) & 12 (B) of the UGC Act, 1956
AN ISO 9001:2008 CERTIFIED INSTITUTION
SANKETIKA NAGAR, SATHUPALLY – 507303, KHAMMAM Dist., TELANGANA



Department of Electrical and Electronics Engineering

Power electronics and simulation lab:



Lab Description

This lab is used to study the characteristics of power switching devices, converters and speed control of electrical machines. This lab also provides the facility to study characteristics of different electronic circuits. and also different softwares like MATLAB, PS-PICE, PSCAD and Mi-power to analyze different applications.

Course Objectives:

1. To simulate and design various gate firing circuits.
2. To familiarize the students by introducing P-Sim and MultiSim and help them to simulate and analyse different Converters .
3. To enable the student to study and simulate various Chopper Circuits using Matlab.

Course Outcomes:

1. Ability to design and conduct simulation and experiments
2. Ability to use the techniques, skills and modern engineering tools necessary for engineering practice.
3. Ability to identify, formulate and solve engineering problems with simulation.
4. Ability to simulate characteristics of SCR, MOSFET, IGBT.
5. Ability to simulate Gate firing circuits.
6. Ability to simulate Rectifier, Chopper, Inverter and AC Voltage Controller.
7. Ability to simulate Cyclo-Converter and calculate harmonics.