

POWER ELECTRONICS LAB



Objective of the Laboratory:

- Introduce basic topologies of power switching circuits
- Introduce hardware and software used in power electronic switching circuits and power conditioning systems.
- Investigate integration of power electronic converters with electric machines.
- Power electronics modeling, simulation and experimental verification.
- Power electronics studies the application of semiconductor devices to the conversion and control of electrical energy.
- To enable the students to simulate and test the rectifier on different load like resistive, inductive and capacitive.
- The primary objective of this laboratory is to provide the students with a basic foundation for analysis, design, test, and DSP control of power electronics converters by simulation and experimentation.

Major Equipment in Laboratory:

- Power Electronic Trainer Kit (XPO-PE)
 - SCR Converters
 - Advanced Firing Scheme for SCR
 - SCR Forced Commutation Techniques
 - SCR Based Inverters
 - Cycloconverters
 - SCR Based Choppers
- Single phase half wave, full wave controlled rectifier.
- Cathode Ray Oscilloscope.

Name of officials handling the Laboratory:

- Sh. Hardev Singh (Retd.2016)(SLT)
- Dharampal(SLT)
- Rahul(CA)