

Power Electronics Laboratory

Location

ETSIIT Building, B Area, Floor -4 S4-52

Description

This laboratory hosts practical exercises for industrial electronics subjects of Industrial electronics degrees. The main objective is to provide students with experience on analysis and design of power electronics converters.

Circuits analysis and modelling is performed by means of the Orcad 9 student version, including Pspice simulator. They also learn how to design inductances and transformers for switched power converters in the frequency range of 100KHz. Experimental measures are done on power converters built by the students themselves.

Each laboratory bench is equipped with: digital oscilloscope with 60MHz band width and IEEE488 connection, differential voltage probe 1000V 25MHz band width, current probe 15A 50MHz band with, power source with three isolated outputs and IEEE488 connection, power source for control circuitry with two isolated outputs, computer connected to high capacity server.

In addition to that basic equipment, there are several 10 digit multimeters and a soldering bench.

The instrumentation is directly connected to each computer in order to allow students all control functions by means of the LabView software.