Politecnico di Torino

Academic Year 2010/11 (first time established in A.Y.2007/08)

01MBPJA

Electronic measurements II

1st degree and Bachelor-level of the Bologna process in Electronic And Computer Engineering - Vercelli (III FACOLTA' DI INGEGNERIA)

Teacher	Status	SSD	Les	Ex	Lab	Years Stability
De Marchi Andrea	PO	ING-INF/07	4	0	1	2

SSD	CFU	Activities	Area context
ING-INF/07	5	B - Caratterizzanti	Ingegneria elettronica

Esclusioni:
Operating systems (01JEZ)

Objectives of the course

The course describes in detail some of the most used electronic instruments.

Expected skills

At the end of the course, the student should be able to understand most of the problems involved in the measurement of electrical quantities.

Prerequisites

Electronic measurements I,Signal Theory, Fundamental of Electrotechnics I and II, Applied Electronics.

Syllabus

Power measurements: bolometers, wattmeters and RMS voltmeters.
Resistance measurements: 2- and 4-wire V-I measurements; Wheatstone bridge.
Impedance measurements: vector impedance meter, Q-meter.
Oscillators. Direct and indirect frequency synthesis.
RF frequency measurements: heterodyne and transfer oscillator frequency counters.
Analog spectrum analyzer.

Laboratories and/or exercises

Exercise sessions will be held in classes. During laboratory sessions, students will practice on power measurements, resistance measurements and frequency synthesis.

Bibliography

References will be given during the course.

Revisions / Exam

Written and oral examination: details will be given in classes.

Programma definitivo per l'A.A.2010/11

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