

Faculty of Applied Sciences



ELEC1101 Project in Electricity 1 : Electrical circuits

[+60h exercises] 5 credits

This course is taught in the 2nd semester

Teacher(s): Francis Labrique, Charles Trullemans
Language: French
Level: First cycle

Aims

At the end of this project, the students will be able

- to conceive a small electrical circuit implementing resistors, capacitors, inductors, operational amplifiers, sources and answering to given specifications
- so simulate this circuit
- to realize this circuit and to test it by using standard measuring equipments.

Main themes

Identical to the contents of the course

Content and teaching methods

- To conceive a circuit answering to specified requirements
- To modelize the circuit. Study of its DC, AC and transient response
- To simulate and optimize the circuit
- To realize and test the circuit
- To explain the differences between the simulated and tested results
- To study the limits of the model

Other information (prerequisite, evaluation (assessment methods), course materials recommended readings, ...)

This project is scheduled in parallel with the following courses :

ELEC1350 : Electromagnetism

ELEC1370 : Electrical circuits and measurements

ELEC1755 : Electricity : advanced topics

A close interaction with these courses will be kept in order to ensure the coherence of the whole

Prerequisite : none

Assessment :

Continuous evaluation based on the work performed during the semester, the reports issued and the oral presentation of the work

Support :

Definition of the project and informations on the i-campus website of the course

Other credits in programs

FSA12BA	Deuxième année de bachelier en sciences de l'ingénieur, orientation ingénieur civil	(5 credits)
FSA13BA	Troisième année de bachelier en sciences de l'ingénieur, orientation ingénieur civil	(5 credits)