Design and control of electrical machines

Lecturer
Johan GYSELINCK (Coordinator)

Course mnemonic
ELEC-H412

ECTS credits
3 credits

Language(s) of instruction
English

Course period
First term

Campus
Solbosch

Course content

The course comprises two parts:

- finite-element analysis of permanent-magnet synchronous machines (PMSMs), using the open-source ONELAB/Gmsh/GetDP software, plus optimisation
- lab work with a dSPACE rapid-prototyping system: introduction, identification and vector control of PMSMs

Objectives (and/or specific learning outcomes)

Give an insight in the FE analysis of electrical machines (in particular PMSMs) and their real-time control.

Teaching method and learning activities

Lectures and exercises with ONELAB. Lab work with dSPACE.

Course notes

Université virtuelle

Other information

Place(s) of teaching

Solbosch

Contact(s)

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Evaluation method(s)

written examination, Practice exam and Group work

Main language(s) of evaluation

English

Programmes

Programmes proposing this course at the Brussels School of Engineering

MA-IREM | Master of science in Electromechanical Engineering | finalité Professional/unit 2