Electric Power Systems II

Lecturer
Pierre HENNEAUX (Coordinator)

Course mnemonic
ELEC-H543

ECTS credits
5 credits

Language(s) of instruction
English

Course period
Second term

Campus
Solbosch

Course content

This course aims at complementing the course "Electric power systems I" with additional bases: (i) fault and short-circuit analysis, (ii) protection systems, (iii) dynamic aspects, i.e. complements of frequency control, voltage control, introduction to dynamic simulation (RMS and EMT), and power system stability (frequency, voltage, angular), (iv) introduction to HVDC transmission and (v) distribution systems, microgrids and smart grids.

Objectives (and/or specific learning outcomes)

Knowledge about the models, mathematical tools and algorithms used in the planning, the operation and the control of electrical power systems.

Teaching method and learning activities

Ex cathedra courses (30h)
Practical sessions, laboratories (30h)

Course notes

Université virtuelle

Other information

Place(s) of teaching

Solbosch

Contact(s)

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Evaluation method(s)

Oral examination

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