Numerical modelling of machines

Component
École Nationale Supérieure d'Électrotechnique d'Électronique

In brief

- **Code ELP:** N9EE27D
- **Open to exchange students:** Yes

Presentation

Objectives

The course 'Numerical Modelling of Machines' aims to introduce students to the use of ANSYS Maxwell software for modelling and analysing electrical machines.

Description

Students will learn how to create detailed digital models of machines such as motors, generators and transformers using the software's electromagnetic simulation tools. The focus will be on analysing magnetic fields, eddy current losses and the interaction between mechanical and electrical components within the machine. Students will also acquire skills to optimise machine design based on simulation results, improving efficiency, performance and reliability. Finally, practical work and case studies will enable them to apply these techniques to real industrial projects, thereby strengthening their mastery of digital simulation tools in the field of electrical machines.

Pre-requisites

Modelling of machines seen from terminals

Non-contractual information.
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