EI2525 Electric Power Engineering Project 9.0 credits

Elkrafttekniskt projekt

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

The official course syllabus is valid from the autumn semester 2021 in accordance with Head of School decision: J-2021-0878.Decision date: 15/04/2021

Grading scale

A, B, C, D, E, FX, F

Education cycle

Second cycle

Main field of study

Electrical Engineering

Specific prerequisites

Knowledge equivalent to at least two completed courses of courses EG2100, EG2200, EH2741, EI2436, EJ2301, EJ2201 or the equivalent.

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

After passing the course, the students should be able to:

- organise a project group for implementation of a complex task
- plan a project group's work with respect to demarcations between project members' functions and assignments
- understand the importance of feedback for a group's development as well as have tools to give feedback to and take feedback from the co-workers
- plan so that work can be carried out within a given time frame and so that an even and just work distribution between project members is achieved
- in writing report status of a project at predetermined times
- write a project report, including background, working method, implementation, achieved results and conclusions
- evaluate the quality of a performed project work
- in oral form present a project for a client and a general public

in order to be able to define, plan, and implement a technical feasability study with respect to proposed electric power technical components and systems.

Course contents

the course is implemented in project groups with 3-8 students. After an introduction including modelling methods as well as project management the groups are assigned project works related to the development of new electric power technology components and systems. Course's main implementation happens through work with these. Since the different project assignments require different knowledge, the first task is to identify the specific knowledge need in each individual project group. Gathering of necessary knowledge comes partly through direct participation in the given courses, but it is in many cases necessary to by oneself find and absorb these knowledge that is available in the form of course material for the given courses.

Another task is that within the group distribute the work, to acquire the for the project necessary knowledge as well as to make a time planning for implementation of project. The project assignments consist of theoretically investigate whether a proposed technical solution of a problem related to an electric power technology component or a system is possible to implement practically. This study shall then be verified experimentally by means of a scaled down conceptual prototype, a physical arrangement, or computer simulation.

To limit the extent of the experimental part, the theoretical study is used to identify what is critical for the proposal solution to be implemented in a practical application. Since limited resources are available for the experimental work, it is necessary to use and interpret the results that come from the theoretical study.

Examination

- PRO1 - Project assignment, 2.0 credits, grading scale: A, B, C, D, E, FX, F
- PRO2 - Project assignment, 7.0 credits, grading scale: A, B, C, D, E, FX, F

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.