EL2425 Automatic Control, Project Course, Smaller Course 7.5 credits

Reglerteknik, projektkurs, mindre kurs

Course syllabus for EL2425 valid from Autumn 15, edition 1.

**Intended learning outcomes**

The overall purpose of the course is to give the student practical knowledge and experience of project work in design and implementation of control systems. The students get to consolidate their previously acquired knowledge in control theory by solving a problem on a laboratory system. The student also gets experience in project work and technical communication.

After the course the student should have the ability to:

- work effectively in a smaller project group
- systematically design, implement, test and demonstrate a prototype control system that meets given specifications
- use adequate engineering tools and methods and acquire new knowledge and skill when needed
- document and communicate results in written and oral presentations

**Course main content**

The majority of the work is project work in a small group of 2-4 students, dealing with:

- project planning
- control design
- modeling and simulation
- implementation of real-time control systems
- validation and test
- communication, documentation and demonstration

There might also be a number of compulsory workshops/tutorials, for example on the development tools that are used in the course.

**Eligibility**

Automatic Control, Basic Course, (EL1000, EL1110, E1120, Reglerteknik allmän kurs) and at least one of EL2520 Automatic control, Advanced course, or EL2620 Nonlinear Control, or EL2450 Hybrid and Embedded Control Systems.

**Literature**

No specific list is given. The students are expected to find the necessary information themselves. Some background material, manuals and other documentation will be available, depending on the nature of the project task.
Examination

- PRO1 - Project, 7.5 credits, grade scale: P, F

PRO1: project, 7.5 credits, grade scale P/F

Requirements for final grade

The fulfilment of the course goals are examined by

- weekly project meetings
- documented project plan
- final presentation and demonstration
- final report and documentation
- self-evaluation