ML1325 Robotics, Minor Course 6.5 credits

Robotik, mindre kurs

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

Establishment

Course syllabus for ML1325 valid from Autumn 2014

Grading scale

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

Education cycle

First cycle

Main field of study

Technology

Specific prerequisites

Language of instruction

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

Intended learning outcomes

On completion of the course the student should be able to:

- explain the design of robotic systems
- describe the possibilities and limitations of robots
- explain and apply the safety requirements for robot use
- master the basics of robot programming
- use and utilise simulation tools for robotic systems
- describe the necessary steps in planning for a robot installation
- describe the sensor systems and tools used with robots

Course contents

- development trends
- fields of use
- the robot structure
- the drive system
- internal and external sensors
- application tools
- programming
- safety
- project planning

Disposition

- Lectures
- Laboratory exercises
- Written assignment

Course literature

Bolmsjö, Gunnar: Industriell robotteknik, 2006, ISBN: 9144008481

Examination

- INL1 - Assignment, 2.5 credits, grading scale: A, B, C, D, E, FX, F
- TEN1 - Examination, 2.0 credits, grading scale: P, F
- LAB1 - Laboratory Work, 2.0 credits, grading scale: P, 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.

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

Other requirements for final grade

- Approved examination, grading scale P/F
- Approved laboratory sessions, the grading scale P/F.
- Approved written assignment, grading scale A-F

Final grades are based on the written assignment.

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.