Automation, advanced course II, 7.5 HE credits
Automatiseringsteknik II, 7.5 Högskolepoäng

Course objectives
The student shall:

- describe different automation paradigms
- describe for ethics and social aspects and the consistency for introduction of an industrial automation system
- show knowledge and understanding about safety systems in and around an automation system
- show knowledge and understanding about communication between different sub-, supervision- and external systems
- the choice of machine vision algorithm and affects the outcome and to evaluate its pros and cons.

Student must demonstrate skills and ability to:

- manage and program an industrial automation system
- manage theory around design, functionality and field of application
- use machine vision technology for an automation system application
- practical use of theory in an automation system.

Entry requirements
Courses of at least 60 hp within the main subject of mechanics including ATC501 Automation Technology I, 7.5 HE credits or similar.

The forms of assessment of student performance
Individual: written exam. Written project report, oral presentation of accomplished project and reviewing another student’s report.
Group: laboratory experiment and active participation in performance of project work. The time frame for all assessed elements in the ordinary examination, as well as the re-examination, are to be stated in writing by the examiner and set out in the Course Guidelines.

General rules pertaining to examination at University West are set out in the Examination Guidelines (www.hv.se)
Other regulations

Course grading: F/3/4/5
Course language: English.
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Established date: 2008-04-14  
Education level: Undergraduate level

Last revised: 2012-04-02
Established by: Prefekt
Applicable from: H12

Course contents

- Deeper studies within automation technology with a focus on communication eg different bus systems, HMI, MES
- Programming of automation systems using OPC
- Machine vision analysis for automation systems applications
- A central part of the course is a project work which consist of a programming a large automation system
- Individual literature study of a automation task
- Information regarding on-going research at University West with in automation

Education field

TE 100%

Main area

Mechanical Engineering

Successive level

G2F

Work integrated learning

Study visit, laborations, project work simulating a real industrial project
Automation, advanced course II, 7.5 HE credits

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<th>Established date</th>
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Course literature