HALMSTAD UNIVERSITY
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School of Information Technology

Thesis 30 credits

Examensarbete 30 hp

Second cycle
Main field: Computer Science and Engineering, Second cycle, contains degree project for Master of Arts/Master of Science (120 credits) (A2E)
Syllabus is adopted by the Research and Education Board (2018-02-19) and is valid for students admitted for the autumn semester 2020.

Placement in the Academic System

The course is included in the Master's Programme (120 credits) in Embedded and Intelligent Systems and in the Master's Programme (120 credits) in Information Technology. The course is also offered as a freestanding course.

Prerequisites and Conditions of Admission

Bachelor of Science degree (or equivalent) in an engineering subject or in computer science.

Courses in computer science, computer engineering or electrical engineering of at least 90 credits, including thesis.

Courses in mathematics of at least 30 credits or courses including calculus, linear algebra and transform methods.

60 credits at advanced level in Computer Science and Engineering.

Course Objectives

The thesis project shall provide training in independent technological/scientific research and development work within the field of embedded and intelligent systems in Computer science and engineering. The student shall during the course develop an ability for work in an international research or development environment.

Following successful completion of the course the student should be able to:

Knowledge and understanding

- discuss the international research and development within the area of the chosen specialization

Skills and abilities

- identify important problems and be able to formulate related and feasible research questions
- design and within given time frames perform scientific investigations and experiments
- evaluate and refer to scientific papers
- use analysis, simulation and synthesis methods suitable for the study direction
- in written text and orally present and argue for the research questions, hypothesis, methods and results

Judgement and approach

- relate own work to international research within the area
- based on own experience, assess and evaluate the research and development subject from technical as well as social aspects.

Primary Contents

Work is carried out in small project groups, of preferably two students each, so that individual contributions can be identified and evaluated. The subject of the degree project is selected from a list of project proposals, provided by the university. Selection is made in consultation between the students and the responsible teacher. Each project group is assigned a tutor who is an active researcher at the university with research expertise in the appropriate subject.

The topic of the degree project shall be within the field of embedded and intelligent systems in computer science and engineering and within the student's chosen specialization at the programme. The project must be based on passed courses within the programme. The project shall either be research-oriented in connection with research at the university, or be innovation-oriented. A research-oriented project must have a clearly identifiable research question. Work shall for the most part be carried out independently. The project includes a substantial literature study, which must thoroughly cover the concerned subject.

Teaching Formats

Instruction is encompassed by continuous tutoring, compulsory project reports and seminars. Project results are presented in the form of a written report in English. The report is presented and defended at a public seminar with an opponent who is employed at university or in industry.

Teaching is in English.

Examination

The overall grades of Fail, 3, 4 or 5 will be awarded for the course.
Examination is through evaluation of the project, and the written and oral presentations. Grades are assigned by the examiner after consultation with the supervisor and opponent.

Supervision of degree projects is provided throughout the course and to the extent determined by the respective schools. If the student requires further supervision after the course has ended, the dean of the school may decide to grant additional supervision for a period of one year. After that, the student will be awarded a grade for the degree project, regardless of whether the work is completed or not.

Name of the test		Grading
Master Thesis Project	30 credits	U/3/4/5

If a disabled student has been granted learning support through a decision by Halmstad University, the examiner may decide on an adapted or alternative form of assessement for this student.

Course Evaluation

Course evaluation is part of the course. This evaluation should offer guidance in the future development and planning of the course. Course evaluations should be documented and made available to the students.

Course Literature

Literature is selected as part of the project work.