MSC IN COMPUTER ENGINEERING*
CHOOSE YOUR SPECIAL AREA OF STUDY

In the future, your best friend might be a robot. It will move and talk like a human. It will have social intelligence, empathy and perhaps even a personality. Casper works with the technology that will make all this happen. His job is to design the software and algorithms to control where the robot looks when it is talking to others. And this requires advanced programming that only very few people can deal with. In the longer term, his work will become facial expressions that can automatically adapt to different social contexts. “Think about how much eye movement means when we communicate and express feelings. It’s one of the most important aspects to get right if we want robots to behave more human-like.”

CASPER BONN BEENFELD ANDERSEN
MSc in Computer Engineering

Students in the MSc in Computer Engineering can specialise in relevant fields of study connected with system and instrument development involving software, hardware, and communication technology. Depending on your chosen specialisation, upon completion of the degree you will be awarded the title of either Master of Science in Engineering (Computer Engineering) or Master of Science and Technology (Computer Engineering).

Your teachers will be researchers from the Department of Engineering and Department of Computer Science, as well as lecturers and development engineers at the Aarhus University School of Engineering. The degree programme thus benefits from R&D projects carried out in all three environments.

CHOOSE YOUR STUDY PACKAGE
The first year of the MSc consists of two basic study packages and two specialised study packages. All students take the basic study packages, but you can choose your own specialised study packages from the options listed on page 2. Each package is worth 15 ECTS credits. The second year consists of an elective programme and a thesis.

The MSc programme offers specialised study packages in the following fields: embedded systems, wireless networks, distributed systems decision, signal processing, and software engineering.

TEACHING
At Aarhus University, you will be in close contact with lecturers and researchers in a way that is rarely experienced at other universities.

The academic staff are readily accessible if you need clarification of the course material. Part of the teaching is in the form of lectures that introduce new angles on the course material, and theoretical and practical exercises take place in small groups in which issues are studied in depth.

STUDENT LIFE
At Aarhus University you will be part of an extensive engineering environment with more than 3,000 engineering students. So you will have ample opportunity to get involved in both academic and social student associations with your fellow students.

CAREERS
The MSc in Computer Engineering prepares students for the national and international job market. Our graduates have found jobs across a range of fields and institutions. There is considerable demand for IT graduates in areas such as instrument development engineering. Many graduates are working as software architects or developers of large instruments and systems, or have become software developers or project managers for large IT systems.

Companies demand graduates with considerable theoretical depth and analytical working methods. You learn to combine the theoretically strong knowledge of a computer scientist with the more practically oriented and innovative approach of an engineer, so that you are well equipped to meet the needs of the job market.

PLACE OF STUDY
Aarhus

WWW
masters.au.dk/computerscience
cs.au.dk/international

ANNUAL TUITION FEE
EU/EEA/Swiss citizens: FREE
Others: EUR 14,500

Fees are subject to change. See international.au.dk
## MSC IN COMPUTER ENGINEERING*

**CHOOSE YOUR SPECIAL AREA OF STUDY**

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### COMPULSORY COURSES

#### AUTUMN
- Optimisation and Data Analytics: 10 ECTS
- Software Engineering Principles: 5 ECTS

#### SPRING
- Applied Innovation in Engineering: 5 ECTS
- System Engineering: 5 ECTS
- Wireless Sensor Networks: 5 ECTS

### SPECIALISED STUDY PACKAGES

Choose two of the specialised study packages

#### AUTUMN
- **Embedded Systems**
  - Embedded Real-Time Systems: 5 ECTS
  - Modelling of Critical Systems: 10 ECTS
- **Wireless Networks**
  - Network security: 5 ECTS
  - Internet of Things Technology: 10 ECTS

#### SPRING
- **Distributed Systems**
  - Decision Support Systems: 5 ECTS
  - Distributed and Pervasive Systems: 10 ECTS
- **Signal Processing**
  - Advanced Signal Processing: 5 ECTS
  - Computer Vision and Machine Learning: 10 ECTS
- **Software Engineering**
  - Modelling and Verification: 10 ECTS
  - Programming Language Paradigms: 5 ECTS

### ELECTIVE COURSES

Choose courses from the specialised study packages or other courses at the Department of Engineering and the broader Faculty of Science, subject to approval by the study programme manager.

AU Course Catalogue: [kursuskatalog.au.dk/en/](http://kursuskatalog.au.dk/en/)

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