CS Specialisation: Advanced Robotics

This specialisation enables you to

- Design and implement control software for robots

- Use artificial intelligence techniques in robotics

- Prototype complete mechatronic systems (robots) including mechanics, sensors, actuators, and computation

Career prospects

The specialization will align you well with a role as software developer in the growing number of robotics companies. Your broad skillset will also allow you to competently work together in a team with hardware developers and designers to develop new robots – maybe in the context of a start-up company. For the very best there is also an opportunity to pursue a PhD in robotics and A.I..

Prerequisites

The are no formal requirements for the specialisation, but students are expected to have:

- Basic programming skills

These skills would be provided by following the ITU course Introductory Programming.

While the specialization is placed in a computer science program almost any type of educational background can with benefit be combined with a specialization in advanced robotics. Natural and technical sciences can typically advance robotics or benefit from the use of robots. Digital design students can with a technical specialization in robotics move beyond the computer screen and help tackle the challenges there are in human-robot interaction and understand the impact of the broader use of robotics in everyday life.