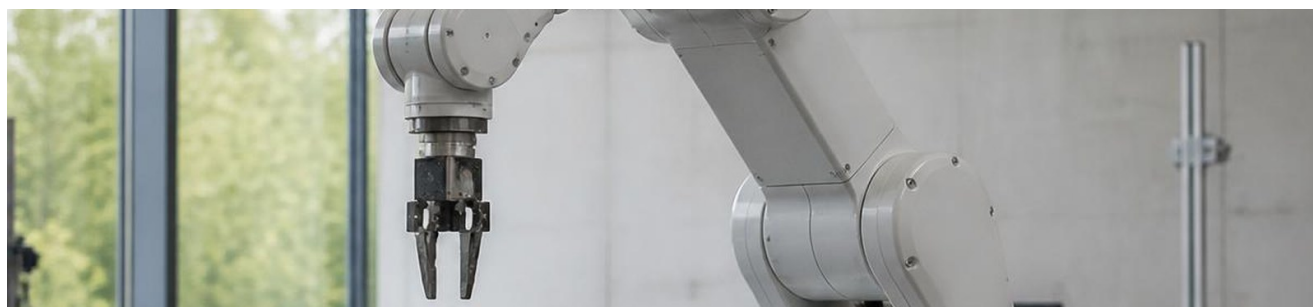




BEng Robotics & Autonomous Systems

School of Robotics & Autonomous Systems

Mechanics, electronics, control and artificial intelligence for autonomous technical systems.

Mechanics, electronics, control and artificial intelligence for autonomous technical systems. The programme combines scientific foundations with project-based engineering practice, delivered in structured semesters with supervised teaching.

Qualification	Recognised secondary qualification or equivalent
Academic credits	210
Duration	7 semesters
Language of instruction	Deutsch / English
Start	1 October 2027
Tuition	EUR 2,450 per semester, EUR 17,150 in total
Application deadline	15 July 2027

Curriculum

Semester 1

- Calculus and Linear Algebra
- Engineering Physics
- Programming with Python
- Foundations of Electronics

Semester 2

- Algorithms and Data Structures
- Digital Systems
- Microcontrollers
- Sensors and Actuators

Semester 3

- Programming in C++
- Embedded Systems
- Control Theory I
- Robot Mechanics and Kinematics

Semester 4

- Robot Dynamics
- Control Theory II
- Computer Vision
- Machine Learning

Semester 5

- Robotics Software and ROS Concepts
- Mobile Robotics
- Autonomous Navigation
- Cyber-Physical Systems

Semester 6

- Industrial Robotics and Collaborative Robots
- Industrial Automation
- Simulation and Digital Twins
- Human-Robot Interaction

Semester 7

- Artificial Intelligence for Autonomous Systems
 - IoT and Networked Manufacturing
 - Engineering Ethics
 - Engineering Project
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Learning outcomes

- Apply scientific method to technical problems
- Design, model and evaluate complex systems
- Communicate results to specialist and international audiences
- Assess technological developments in ethical and legal terms

Admission requirements

- Recognised secondary qualification or equivalent — higher education entrance qualification including mathematics and one natural science (overall grade 2.5 or better)
- Evidence of proficiency in the language of instruction — English C1 (IELTS 7.0 / TOEFL iBT 95) or German C1 (TestDaF 4x4 / DSH-2), depending on the language of instruction
- Complete application documentation — transcripts, language certificate, CV and identity document

Career opportunities

- Development and design roles in technology-driven organisations
- Research and development in institutes and industry
- Project and systems responsibility in interdisciplinary teams
- Progression to master's or doctoral study

Contact and application

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