

Robotic Systems Engineering

RWTH Aachen | Institute of Mechanism Theory, Machine Dynamics and Robotics



**From 13
countries**



**~ 2 years working
experience**



**2-year full-time
Master's Program**



**Internship in Germany
> 12 weeks**



**M. Sc.
Degree**



**28
Average Age**



**Multi-
Lingual**



Focus of the Program

- 1) Development and Design of new robotic solutions
- 2) Optimal use and Application of Robots

Qualification profile

Robotics engineers who experience robots as a mechatronic system that only becomes an optimal solution through the sensible linking of mechanics, drives, sensors and information processing

Successful graduates know what it takes to develop robotic systems such as autonomous robots and smart industrial systems. They have a comprehensive understanding of algorithms, sensors, control systems, and mechanisms used in robotics and are able to recognize the tools and principles needed for understanding robotic and control systems. They use a multidisciplinary approach that combines Mechanical and Electrical Engineering and Computer Science. Thus they look at robotic systems from different technical perspectives.

Besides the technical understanding of designs and automation concepts, our graduates have skills in programming autonomous systems, machines and robotics. In addition to conception and development, the graduates can organize workflows and monitor manufacturing processes.

Robotics Engineers from RWTH Aachen are ready to play a key role in engineering projects in the robotic and mechatronic industries, choose a path in applied research or become an entrepreneur with their own robotic idea.

Technical Know-How & Skills of our Students

Technical, Methodological & Analytical Skills

- ▶ Advanced Robotic Kinematics And Dynamics
- ▶ Machine Learning
- ▶ Ai And Data Analytics
- ▶ Robotic Systems, Incl. Industrial Robots, Advanced Robots
- ▶ Simulation of Robotic Systems, Sensors And Environment
- ▶ Machine Dynamics of Rigid Systems
- ▶ Robotic Sensor Systems
- ▶ Computer Science

Interpersonal Skills

- ▶ Intercultural teamwork
- ▶ Interdisciplinary thinking
- ▶ Structured way of working
- ▶ Sense of responsibility