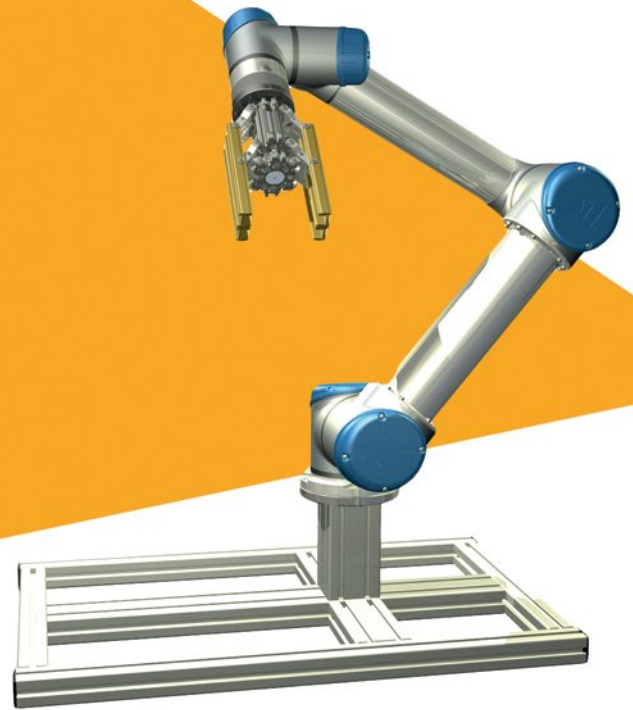


# MECHATRONIC SYSTEMS ENGINEERING AND PRODUCT INNOVATION



## Mechatronic Systems Engineering and Product Innovation Engineering Summer School

Our Summer School courses in Mechanical Engineering and Management offer international students the opportunity to take part in excellent science and research at RWTH Aachen University. The University is highly acclaimed internationally for its development of innovative answers to the most pressing global challenges. As a result, numerous research institutions, companies, R&D departments and start-ups have settled in and around Aachen, making RWTH the ideal setting for aspiring students.



### Program Objective

The Summer School is divided into three subject areas: First, fundamental issues in industrial robotics and related mechatronic systems will be explored. Second, students establish an understanding of the properties of transmission and information and the relationship between coding and the fundamental limits of information. Finally, a mechatronic system will be systematically developed.



### Applicant's Profile

This program is specifically tailored for B.Sc./B.E. students enrolled at top universities. Applicants need proficient knowledge of the English language and should be studying Mechanical Engineering or a related field. Completion of the first academic year is mandatory. The minimum age to participate is 18 years.



### Application Information

We will evaluate applications based on the cover letter, the completion of the special requirements of each program, the overall strength of your academic record, and extracurricular experiences.



### Academic Staff

Three institutes are conducting the lectures: The Institute of Mechanism Theory, Machine Dynamics and Robotics focuses on mechatronics and robotics. The fundamentals of mechatronic systems engineering are taught by the Institute for Machine Elements and Systems Engineering. The Institute for Theoretical Information Technology covers information theory and coding.



### Quickfacts

<b>Study format</b>	Summer School
<b>Qualification</b>	Certificate
<b>Language</b>	English
<b>Course Fees</b>	EUR 2,990
<b>Duration</b>	3 weeks
<b>Workload</b>	90 Teaching Units

\*All Summer Schools are co-funded by the RWTH International Academy in cooperation with RWTH Aachen University.



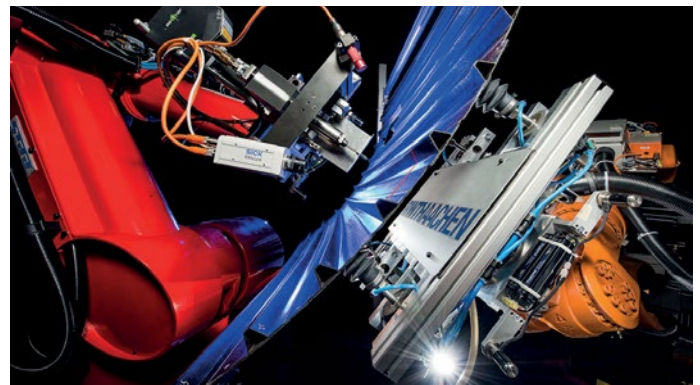
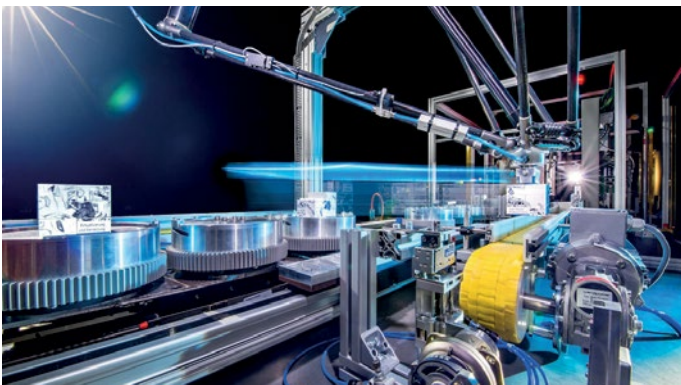
## Academic Content

Modules: Lectures and Exercises	Teaching Units
Introduction to Course Content: Mechatronics and Robotics	4
Mechatronics and Robotics	12
Fundamentals of Mechatronic Systems Engineering	8
Information Theory and Systematic Design of Communication Systems	12
Case Study: Mechatronic Product Innovation	28
Study Time	4
Final Exam	2
Modules: Company Visits and Culture	Teaching Units
RWTH Campus Tour	4
Intercultural Workshop	4
Visit of Smart Automation Lab	4
Excursion to Jülich Research Center	8
<b>Sum of Teaching Units</b>	<b>90</b>



## RWTH Aachen University

RWTH Aachen University is one of Germany's universities of excellence. It is a place where the future of our industrialized world is thought out. The university is proving to be a popular spot with increasing international recognition where innovative answers to global challenges are developed.



Fotos: Thilo Vogel, Fotolia: WavebreakMediaMicro



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