

SMART FACTORIES



Smart Factories

Engineering Winter School

Our Winter 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 Winter School courses offered by RWTH International Academy are uniquely designed for international students who want to gain insight into one of Germany's Universities of Excellence. RWTH International Academy works closely together with various institutes at RWTH Aachen, as well as the University's International Office.



Academic Staff

The Winter School is headed by the Cybernetics Lab, which is part of the Faculty of Mechanical Engineering of RWTH Aachen University. It is supported by the Institute of Mechanism Theory, Machine Dynamics and Robotics, the Chair for Digital Additive Production/Fraunhofer ILT, the Institute for Industrial Management and the Institute of Industrial Engineering and Ergonomics.



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.



Quickfacts

Study format	Summer School
Qualification	Certificate
Language	English
Course Fees	EUR 1,990
Duration	12 days
Workload	60 Teaching Units



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.

*All Winter 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 Industrial Robotics and Industry 4.0	4
Additive Digital Manufacturing	8
Kinematic Calculation of Industrial Robots	12
Cybernetics Lab	16
The Digital Supply Chain (Smart Factory)	4
Ergonomic Design of Human-Machine Interaction in Advanced Manufacturing Systems	4
Studytime and Final Exam	6
Modules: Company Visits and Culture	Teaching Units
Institute/Company Visit	6
Sum of Teaching Units	60



Striving for Excellence: Rankings and Accreditation

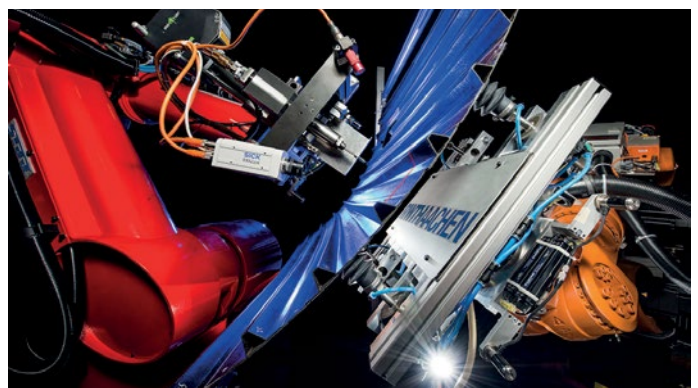
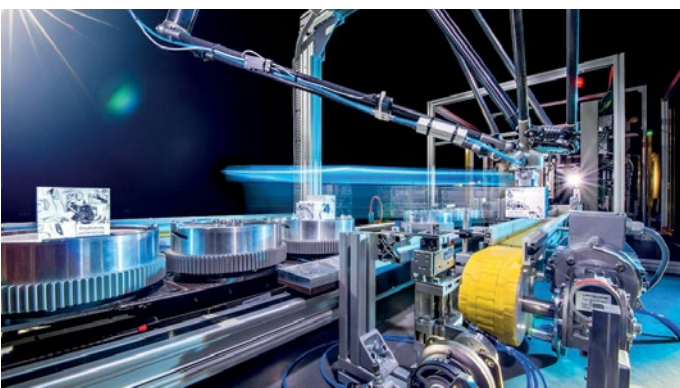
RWTH Aachen University's success in Germany's Excellence Initiative reflects its outstanding reputation for research and education in science, technology, and engineering fields.

RWTH Aachen University secures top places in university rankings every year:

- In 2016, the university was particularly successful in the field of mechanical engineering and was ranked place 12 worldwide and the best German University within this subject. (Source: QS World University Ranking by Subject)
- RWTH Aachen University is the university with the most allotted research funding in engineering. (Source: German Research Foundation (DFG))

The university receives funding for the implementation of its institutional strategy, RWTH 2020: Meeting Global Challenges, which was endorsed by the German Research Association (DFG) and the German Council of Science and Humanities.

Funding was also approved for the university's three clusters of excellence and the AICES Graduate School. With its outstanding performance in the first round of the Excellence Initiative, RWTH Aachen University has confirmed its place among Germany's top institutions of higher education.



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