

PRODUCTION TECHNOLOGY MEETS INDUSTRY 4.0



Production Technology meets Industry 4.0 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 program provides students with an introduction to Industry 4.0. Industry 4.0 is an initiative by the German government which promotes the integration of industrial production with information and communication technologies. Students will explore fundamental areas of Industry 4.0 and acquire a better understanding of current and future requirements in production technology.



Academic Staff

The lectures and exercises of the Summer School are conducted by the Cluster of Excellence "Internet of Production" and numerous institutes of RWTH Aachen University. Supporting institutes include the WZL, Cybernetics Lab, IBF, IKV, DAP/Fraunhofer ILT, IGMR, IAW, IEHK and ITA, making this our most interdisciplinary and diverse Summer School.



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

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|----------------------|-------------------|
| Study format | Summer School |
| Qualification | Certificate |
| Language | English |
| Course Fees | EUR 2,990 |
| Duration | 3 weeks |
| Workload | 90 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 Summer Schools are co-funded by the RWTH International Academy in cooperation with RWTH Aachen University.



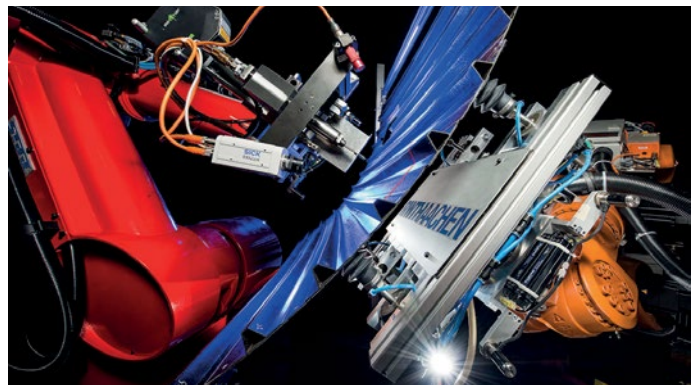
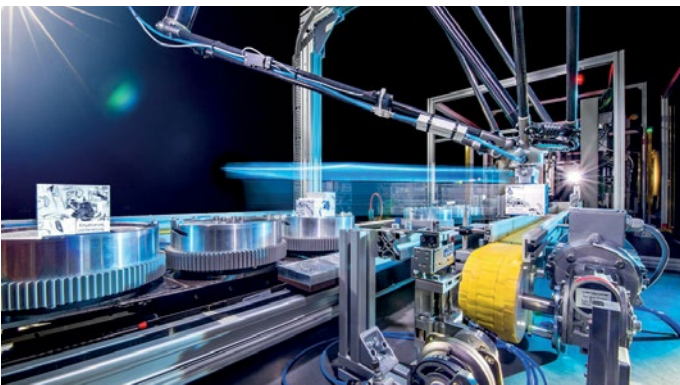
Academic Content

| Modules: Lectures and Exercises | Teaching Units |
|---|----------------|
| Mobile Robots for Flexible Intralogistics | 4 |
| Modern Factory Layout Planning | 8 |
| Simulation of Lean Principles | 4 |
| Innovation and Trends in Metal Forming | 4 |
| Innovative Plastics Technology | 4 |
| Additive Manufacturing | 8 |
| Advanced Production Processes by Integrated Production Networks using OPC-UA and Advanced Analytics | 8 |
| Assembly Robotics and Smart Automation | 8 |
| Ergonomic Design of Human-Machine Interaction in Adv. Manufacturing Systems | 8 |
| Smart Automation for Future Production Technology | 4 |
| Computational Based Design of New Materials and Processes | 8 |
| Self-optimized Machines and Human-Machine Interaction in the Future Textile Production | 4 |
| Preparation Time and Final Exam | 2 |
| Modules: Company Visits and Culture | Teaching Units |
| RWTH Campus Tour | 4 |
| Intercultural Workshop | 4 |
| Visit of Smart Automation Lab | 4 |
| Visit of ITA | 4 |
| Sum of Teaching Units | 90 |



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; zapp2photo, Trendsetter



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