

AUTOMOTIVE AND MOBILITY STUDIES



Automotive and Mobility Studies 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 explores modern automotive technologies and concepts of mobility, such as: Fundamentals of vehicle physics, including vehicle models of automotive history and driving resistances; alternative concepts for the powertrain of vehicles, including unconventional types of combustion engines; energy storage systems in vehicles; and grid integration of electric vehicles.



Academic Staff

The Institute for Automotive Engineering (ika) and the Institute for Power Electronics and Electrical Drives (ISEA) conduct the academic content. Research areas include innovative concepts for components and systems, vehicle prototypes, the development of innovative components, controls and system concepts in traction and automotive technologies, and energy supply (ISEA).



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 3,750
Duration	4 weeks
Workload	120 Teaching Units



Application Information

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

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



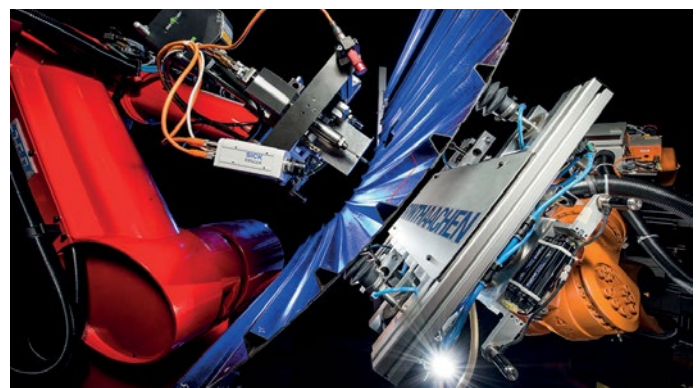
Academic Content

Modules: Lectures and Exercises		Teaching Units
Energy Storage Systems in Vehicles		2
Cells and Batteries-Chemistry		2
Automotive Engineering		6
Energy Consumption in Electric Vehicles		2
Alternative and Electrified Vehicle Propulsion Systems		20
Case Study: Autonomous Vehicles		32
Grid Integration of Electric Vehicles		2
Field Test: Electric Vehicles (ISEA)		2
Introduction: Automated Driving-State of the Art and Current Research	Activities	4
Final Exam		4
Modules: Company Visits and Culture		Teaching Units
Excursion to Stuttgart		10
Visit of the Institute for Automotive Engineering (ika)		4
Visit of ISEA Battery Test Center		2
Visit of Ford Research Center		4
Excursion to DAF Trucks		5
Excursion		5
RWTH Campus Tour		2
Intercultural Workshop		4
Automotive Engineering		6
Visit of ISEA Chemical Laboratories		2
Sum of Teaching Units		120



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.



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RWTH International Academy
 summerschool@academy.rwth-aachen.de
 www.summerschool-in-germany.com
 www.facebook.com/RWTHSummerSchool

