

SMART ELECTRICAL POWER SYSTEMS



Smart Electrical Power Systems 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

Students receive an overview of current challenges and new technologies with regards to the future electric grid. Topics include but are not limited to the distribution and transfer of direct current, measurement and monitoring methods in modern power systems, integration of new technologies in and the modernization of power systems, as well as energy storage systems.



Academic Staff

The E.ON Energy Research Center of RWTH Aachen University is the leading institution of this Summer School and responsible for the overall direction of the academic content. The E.ON ERC is supported by an expert of the BatterieIngenieure GmbH and the Institute of Power Systems and Power Economics.



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



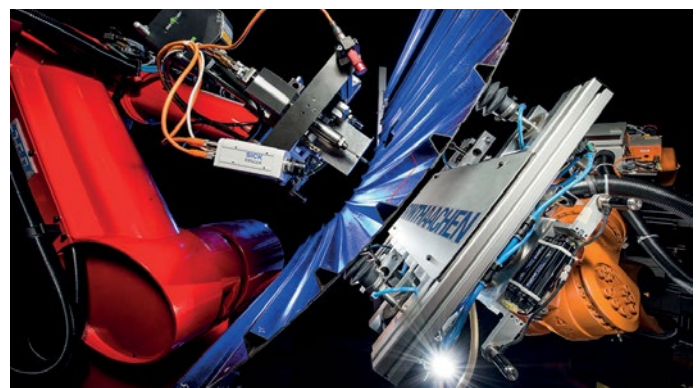
Academic Content

Modules: Lectures and Exercises	Teaching Units
Introduction to Course Content	4
Basics on Battery Energy Storage Systems as Flexibility Options in the Future Electricity Grid	4
Applications for DC-Voltage Technologies	2
Introduction to Smart Electrical Power	4
Measurement Techniques and Distributed Intelligence for Power Systems	4
Battery Storage Systems	8
Power System Dynamics	4
Automation of Complex Power Systems	4
Basics on power economics in liberalized electricity markets	4
Corporate Strategic Planning Simulation „Energy Supplier“	8
Modules: Company Visits and Culture	Teaching Units
Tour of PGS-Labs and Center for Wind Power Drives	2
RWTH Campus Tour & RWTH Lab Tour	4
Visit of RWE Niederaussem Power Station	8
Sum of Teaching Units	60



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: Stephan Leyk, Jules, Daniel Ernst



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