Simulate a campus building and optimize its energy performance!

Sustainable Buildings and Green Cities

Check out our website!

Expect these Contents

Explore the energy efficiency of buildings on a micro-level, and consider districts on a macro-level, while learning about building performance simulation and district supply systems. A district from the living lab project SmartQuart will serve as a use case. SmartQuart's core technological element is the exchange of energy and intelligent networking within and between the smart districts.

- Understand the mathematical and physical basics to work with dynamic building simulation and plant operation simulations
- Implement models using computer-based numerical methods and the object-oriented modeling language Modelica
- Identify influential factors on CO2 emissions and costs in the operation of a power system through a sensitivity analysis
- Simulate a single zone of a building for a complete year

Summer School

July 6 - July 19, 2025 (2 weeks)

2,250 €

On-campus

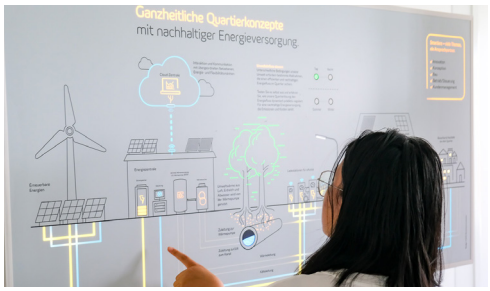
Supporting Program

RWTH Certificate with 3 ECTS (approx. 75 hours)

Accommodation included

Explore a model of sustainable living

In times of energy transition, new technologies are emerging faster and faster. Become the next to shape a sustainable future! Do you want to experience the future of energy management up close? Our partner SmartQuart will help you understand the future of sustainable cities!



RWTH International Academy gGmbH
www.academy.rwth-aachen.de/short-courses

INTERNATIONAL ACADEMY | RWTH AACHEN UNIVERSITY

Sustainable Buildings and Green Cities – Summer School*

TIME (CEST)	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
08:00 - 08:30							
08:30 - 09:00							
09:00 - 09:30							
09:30 - 10:00							
10:00 - 10:30		Pick-up					
10:30 - 11:00		Welcome Orientation	Scientific Introduction	Feasibility Study & Profitability	Building Performance	Facilities Visit	
11:00 - 11:30						Lunch Break	
11:30 - 12:00							
12:00 - 12:30		Lunch Break					
12:30 - 13:00							
13:00 - 13:30							
13:30 - 14:00	Individual arrival	Get to know Aachen City Rally	Feasibility Study & Profitability	Feasibility Study & Profitability	Building Performance	Company Visit	Free time for excursions, sight-seeing and self-study
14:00 - 14:30							
14:30 - 15:00					Transfer		
15:00 - 15:30							
15:30 - 16:00					Study at RWTH Info Event		
16:00 - 16:30							
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18:00 - 18:30							
18:30 - 19:00							
19:00 - 19:30							
19:30 - 20:00							
20:00 - 20:30							
20:30 - 21:00							

Organizational and social event

Lecture, academic program

Academic supporting program (institute/company visit, scheduled self-study, group work, case study, project work)

***Exemplary Schedule** (Information presented is subject to change. Errors and omissions reserved)

Sustainable Buildings and Green Cities – Summer School*

TIME (CEST)	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
08:00 - 08:30	Free time for excursions, sightseeing and self-study				City Trip to Maastricht (The Netherlands)		Individual departure
08:30 - 09:00							
09:00 - 09:30		Building Performance	Building Performance	Building Performance			
09:30 - 10:00							
10:00 - 10:30							
10:30 - 11:00						Final Exam	
11:00 - 11:30							
11:30 - 12:00							
12:00 - 12:30		Lunch Break				Lunch Break	
12:30 - 13:00							
13:00 - 13:30							
13:30 - 14:00		Building Performance	Direct Supply Systems	Direct Supply Systems		Farewell	
14:00 - 14:30							
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