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Automotive and Mobility Studies Summer School • RWTH Aachen University • Aachen........... 2
Overview

Course location
Aachen

Teaching language
• English

Language level of course
• English: B2

Dates
• June 08 - July 03, 2020 (Registration Deadline April 01, 2020)

Target group
You are a BSc/BE student enrolled at a renowned university, have profound knowledge of the English language and are studying mechanical engineering or a related field.

Ideally, you should have taken classes that address the following areas and thus already have basic knowledge in the following areas: mathematics, mechanics, physics, fluids, energy conversion machines, thermodynamics, automotive engineering.

The minimum age to participate is 18. Students should have completed the first year of their studies.

Description/content
For further information about this programme, click here: http://bit.ly/2E8Nagc

Academic Content

The Summer School explores modern automotive technologies and concepts of mobility. Key areas of study cover the following topics:

1. Fundamentals of vehicle physics, including successful vehicle models of automotive history and driving resistances, enabling students to determine the energy demand for a vehicle in a given driving situation which, in turn, enables one to select and design the appropriate powertrain
2. Alternative concepts for the powertrain of vehicles, introducing unconventional types of combustion engines with the consideration of alternative fuels (alcohol, natural gas, hydrogen), gas turbines, Stirling engines, and fuel cells as well as electric drives
3. Energy storage systems in vehicles with the subjects CO2, cell chemistry and design, formats of lithium ion, pack design, personal and public applications, and public perception as well as market barriers
4. Grid integration of electric vehicles covering the areas charging process, charging concepts and charging management

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).

**Average number of hours per week**
30

**Average number of participants per group/course**
25

### Costs / Funding

**Dates and costs**
- June 08 - July 03, 2020 (Registration Deadline April 01, 2020), **costs**: EUR 3,750

**This price includes**
- Course fees
- Accommodation
- Accompanying programme

**Further information on dates and prices.**
The course fees amount to 3,750 EUR for the four-week summer school programme.

**All-inclusive package:**
- lectures
- accommodation
- excursions and social events
- catering
- public transportation ticket

Early Bird Discount: complete your application by 1 March to get a 10% discount on the total fees – in case of admission!

### Requirements / Registration

**Teaching language**
- English

**Language level of course**
- English: B2

**Language requirements**
An English language proficiency test is recommended.

Since the programme is taught in English, you need to have sufficient academic English language skills to be able to follow the course.

**Submit application to**
Applications for the Summer School programmes are possible via our online application form on our website.
# Services

<table>
<thead>
<tr>
<th><strong>Is accommodation organised?</strong></th>
<th>Accommodation is arranged by the organiser.</th>
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<tbody>
<tr>
<td><strong>Type of accommodation</strong></td>
<td>Participants will stay at one of Aachen's hostels, where breakfast will be provided. The rooms accommodate two to four people. The accommodation is centrally located in the heart of the city and is well served by the city's public transport system. Students will receive a public transport ticket for the duration of the Summer School for convenient travel within the Aachen city region.</td>
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<tr>
<td><strong>Meals</strong></td>
<td>Breakfast and lunch on workdays are included.</td>
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<tr>
<td><strong>Is a social and leisure programme offered?</strong></td>
<td>Yes</td>
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<tr>
<td><strong>Description of social and leisure programme</strong></td>
<td>Social Events - Have Fun While Studying! While following an intensive academic programme, participants will experience German culture first-hand through an extensive leisure programme, e.g.:</td>
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<td>- Intercultural training</td>
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<td></td>
<td>- Visits to important sights in and around Aachen</td>
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<td>- Excursions to nearby cities such as Maastricht or Cologne</td>
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<td>- Sporting events</td>
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<td>- Barbecues, karaoke and other get-togethers</td>
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<td>... and a lot more - enjoy your stay!</td>
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<td><strong>Free internet access</strong></td>
<td>Yes</td>
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<td><strong>Support in visa matters</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Pick-up service from train station/airport</strong></td>
<td>Yes</td>
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With 260 institutes in nine faculties, RWTH Aachen University is one of Europe's leading institutions for science and research. Currently, around 45,000 students are enrolled in over 100 academic programmes. More than 10,000 of them are international students. The scientific education students receive at RWTH Aachen University is firmly rooted in real-world applications. Our graduates are highly sought after by businesses as trainees and for executive positions.
University Location

Aachen, Germany's westernmost city, is located on the borders with Belgium and the Netherlands. Its population is about 240,000. Aachen's historic centre around the distinctive cathedral (UNESCO world heritage site) is characterised by a student lifestyle. On the city’s doorsteps, the hilly Eifel landscape with its rivers, lakes and forests offers a picturesque countryside for outdoor recreation. Aachen benefits greatly from its central location: in the heart of Europe!

Contact

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