

Ostfalia University of Applied Sciences in Wolfenbuettel, Germany, invites you to the International Summer University (ISU 2011).

Meet German and international students, study autonomous smart vehicles, visit Germany and have fun.



Location: **Ostfalia  
University of Applied Sciences  
Faculty of Computer Science  
Wolfenbuettel, Germany**

Date: **May 16 – 27, 2011**

Registration: **until January 31, 2011**

Course fees: **500 €, including accommodation,  
meals and excursions**

Web: **[www.isu-cs.ostfalia.de](http://www.isu-cs.ostfalia.de)**

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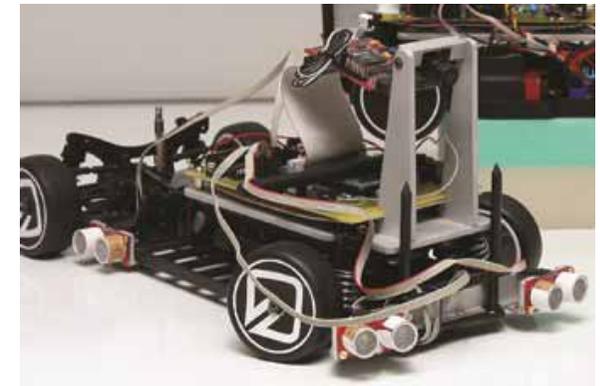
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Photo of Volkswagen plant: Andreas Praefcke (CC-BY 3.0)

Study  
**Autonomous Smart Vehicles**  
and visit Germany:

# INTERNATIONAL SUMMER UNIVERSITY GERMANY

**May 16 – 27, 2011**



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## AUTONOMOUS SMART VEHICLES

An autonomous ground vehicle is somehow the dream of the near future. A vehicle that navigates and drives entirely on its own with no human driver and no remote control. Get an introduction to knowledge representation and intelligent methods, and learn how to apply them in autonomous systems. Two courses are offered:

**Programming Autonomous Systems (Course CS I)**  
(Prof. Dr. G. Bikker, Ostfalia)

An autonomous vehicle navigates and drives entirely on its own. Through the use of various sensors and positioning systems, the vehicle determines all the characteristics of its environment required to enable it to carry out the task it has been assigned. In order to handle it for students we work with a 1:10 scale car. A main point is to develop the software for the electrical controlled units, called ECUs. A methodology that supports the development of embedded systems is the Model based development. Main idea of the course is to use an off the shelf Modeling Tool and do the code generation for the embedded system. We will do it hands on for a little project example: Modeling Tool, Development Environment and Micro-Controller Hardware.

**Artificial Intelligence Programming (Course CS II)**  
(Prof. Dr. U. Quevedo, UWP)

This course is an introduction to Artificial Intelligence concepts such as machine vision, planning, problem solving and search. Students will develop software for object recognition using image processing, morphological operators and Matlab. Additionally, students will use the logic programming language Prolog for problem solving techniques and planning in Artificial Intelligence.

## EXCURSIONS AND FIELDTRIPS



125 years ago German pioneers invented the automobile. Today Europe's largest car manufacturer Volkswagen is located in the region of Braunschweig/Wolfenbuettel. Meet workers and engineers at the assembly lines and inspect the latest models of Volkswagen.

**Volkswagen AG, Wolfsburg:** Autostadt and Factory Tour  
**Jungheinrich AG, Hamburg:** Factory and Harbour Tour

The Jungheinrich Group is one of the world's three largest suppliers of industrial trucks, warehousing technology and materials flow technology.

**Wolfenbuettel:** Town walk and Duke August Library  
**Braunschweig:** Town walk, Birth place of Carl-Friedrich Gauss  
**Harz Mountains:** Steam train ride or hike onto Brocken summit

## CULTURE AND LANGUAGE

Visit Germany and get an insight into German history, culture and language. The region Braunschweig/Wolfenbuettel will lead you back to the Middle Ages, and in Berlin, Germany's capital, you will come in touch with the former border line between East and West.

**German Language, History and Culture (Course GL)**  
(Prof. PhD. S. Christoph, UWP)

**Berlin, capital of Germany**

City tour, Reichstag - Parliament Building, Chancellory, Former line of the Iron Curtain, Berlin Wall Museum

