
About FZD

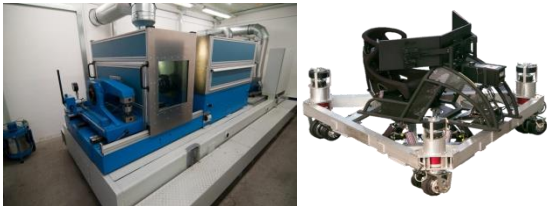
FZD research projects

FZD is involved in several projects with car and motorcycle manufactures as well as automotive suppliers. For example, FZD is doing research in the field of automated driving. Therefore, the automotive institute owns a plurality of test vehicles like Mercedes S-Class, BMW i3, cars and motorcycles from Honda and many more.



Equipment

As FZD has also research projects in brake technology, cargo load safety and driving simulator technology, the institute is equipped with many test rigs, e.g. hydraulic pulse generator and flywheel dynamometer, a wheeled mobile driving simulator etc.



Furthermore, FZD uses the university own test track on the August Euler Airfield in Griesheim for its research.



Darmstadt and TU Darmstadt

Darmstadt is a young and vibrant city with 150k inhabitants and more than 42k students. With 5 Research Centers and 3 Institutions of Higher Education, Darmstadt is known as the City of Science. Furthermore, located in the Rhein-Main Region, Darmstadt benefits from the region's innovative power and economic strength. Also, as a former seat of royal power, the city allows to indulge in rich German history and culture with the Schloss, Botanical Gardens and Mathildenhöhe only being some of them. TU Darmstadt is one of the TU9 German Universities of Technology and thus amongst the nine leading Technical Universities. It is ranked 2nd in Engineering and 1st in Collaborative Research Centers by the DFG.

TU Darmstadt connects a truly German setting with an international spirit to a world-class environment of research and teaching.

Application

Prerequisites

- Enrolled as a student at a participating partner university: Virginia Tech, University at Buffalo, University of Illinois at Urbana-Champaign, University of British Columbia
- Graduate or advanced undergraduate (strongly recommended to have the junior year completed before arrival in Germany)
- General interest in automotive technologies
- Willingness to explore German culture
- US/Canadian driver's license

Interested?

- You can transfer 6 Credit Units counting for your undergraduate or graduate degree
- The program fee includes participation in all academic classes, housing, public transport, two cultural trips and two social events
- For more information visit:
www.fzd.tu-darmstadt.de/aesg

Please contact your international affairs office for the application process. The deadline is usually in the beginning of January.

Automotive Engineering Summer Germany 2020

Technische Universität Darmstadt
Prof. Dr. rer. nat. Hermann Winner



Automotive Engineering Summer Germany

Start your Master Studies early or complete your Bachelor Studies at Technische Universität Darmstadt, Germany. All classes are together with German students and will be held in English.

We offer:

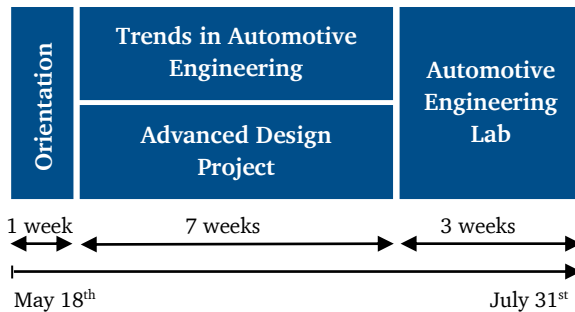
- Studying automotive technology in Germany, where the automobile was born and most of the premium cars are developed and produced
- Studying at one of Germany's best universities for mechanical engineering
- Experiencing the cutting edge of automotive research
- Execution of a research project together with German students

And furthermore:

- Global experience
- The opportunity to travel within Europe
- More free time during following semesters – for leisure or to focus on your research
- Becoming acquainted with the German culture

The program consists of three automotive engineering classes - Trends in Automotive Engineering, Advanced Design Project, Automotive Engineering Lab - as well as enriching intercultural program.

Start in Germany will be on **May 18th, 2020**. The overall duration of the program is **11 weeks** and therefore the program officially ends in the **evening of the 31st July 2020**. Afterwards, you will have further time to travel around Europe before the fall semester in the US begins.



Classes

Course Title	Type	Credit Units	Level
Trends in Automotive Engineering	Lecture	2	Graduate
Advanced Design Project	Lecture & Lab	2	Graduate
Automotive Engineering Lab	Lecture & Lab	2	Graduate

Trends in Automotive Engineering is an extension of the knowledge about motor vehicles through lectures on current research topics of FZD's scientific employees, as well as field trips.

Advanced Design Project is a team project about an automotive topic. For example, tasks of the last years were the construction of a part for Darmstadt's Formula Student Racing.

Automotive Engineering Lab is a combination of lectures and experiments. In experiments theoretical knowledge is put into practice.

All Credits can be transferred to your home university and classes will be held in English, so that **no German skills** are necessary. Nevertheless, if you want there will be plenty of opportunities to learn some German.



Source: DART racing

About FZD Staff

Automotive Engineering at Technische Universität Darmstadt (FZD) is a chair and a research institution within the Department of Mechanical Engineering. Academic head of FZD is Prof. Dr. rer. nat. Hermann Winner. FZD employs 23 scientific research assistants (PhD-candidates), one chief engineer, several lecturers and administrative staff. Research at FZD is supported substantially by the institute's own mechanic and electronic workshops.



FZD faculty and staff 2019

Research at FZD

The scientific employees do research with the support of student assistants primarily in six fields: Driver Assistance Systems, Vehicle Dynamics, Motorcycle, Safety, Brake Technology, and Test Methods.



DRIVER ASSISTANCE
VEHICLE DYNAMICS
MOTORCYCLE
SAFETY
BRAKE TECHNOLOGY
TEST METHODS