



TECHNISCHE
UNIVERSITÄT
DARMSTADT

Technische Universität Darmstadt

We always want to be among the best



Our Campus



Origin

founded	1877
positioned	in the metropolitan region Rhein-Main-Neckar, one of the most dynamic and strongest regions of Europe
supported	with more than 262 million euro from the State of Hesse and 145 million euro from third-party funds (in 2012)



People



TECHNISCHE
UNIVERSITÄT
DARMSTADT



25.100 Students

293 Professors

2.310 Research Associates

1.840 Administrative and
technical employees

Directions



- 13 Departments
- 5 Fields of Study
- 110 Courses of Studies
 - 5 Collaborative Research Centers
 - 7 Graduate Colleges
 - 1 Research Cluster of Excellence
 - 2 Graduate Schools of Excellence
 - 3 LOEWE Centers of Excellence
 - 7 LOEWE Focus Areas

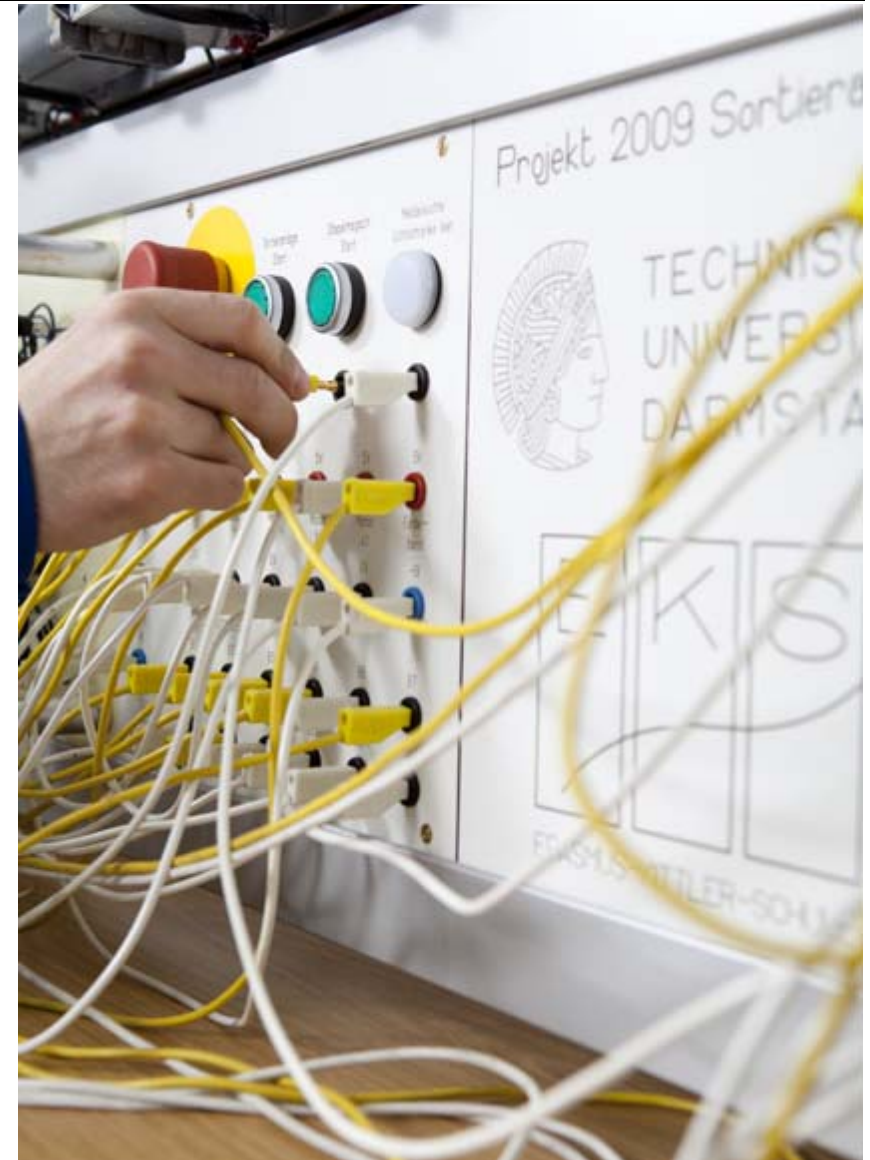
Focused on Technology

We concentrate on technology – interdisciplinary from the perspectives of natural and engineering sciences or of liberal arts and social sciences.

Data security concepts such as the unforgeable passport and the insurance card were 'made by TU Darmstadt'. Our students of computer science make **communication in all the IT system networks secure** and conceived the encryption technology.

Global Challenges Energy Supply –

All areas of study concentrate on their competencies: From powerplant engineering to geothermics.



Curious on the Future



TECHNISCHE
UNIVERSITÄT
DARMSTADT

Research clusters strengthen our profile:



Thermo-Fluids and Combustion Engineering

Product quality and energy efficiency for gas turbines, combustion engines, power plants, wind generators, airplanes



New Materials

Custom-fit technologies and materials for energy and communication technology, traffic and environmental engineering, et al.



Nuclear and Radiation Science

Research with most intense particle radiation of heavy ions and antimatter



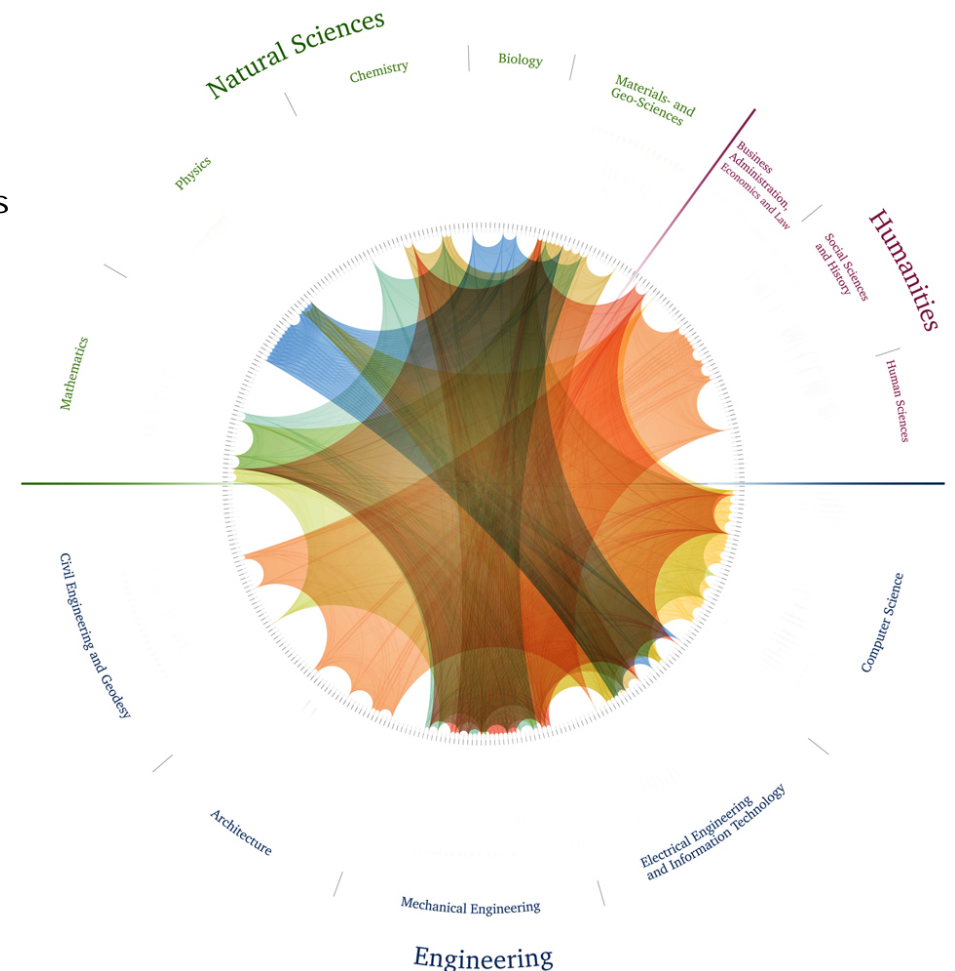
Integrated Product and Production Technology

Integration of product development and production system design with material sciences, business administration and logistics under the condition of scarce resources



Future Internet

Services in global and dense networks with secure, powerful and highly efficient technologies and applications



Interdisciplinary Strong

Passing the boundaries of disciplines we find fascinating results:

- **Computational Engineering** – computer modeling, simulation, analysis and optimisation of complex applications in engineering and natural phenomena.
- **Urban Research** – integrated examination of water supply, energy use, quality of life, security and culture of building with the aim to understand cities and to plan and design them. Involved are social, history and sport sciences, lighting technology, construction engineering, architecture and economics.
- **Adaptronics** – intelligent, self-adapting components and materials. Interaction between mechanical engineering, materials science, computer sciences, electrical engineering, mathematics and chemistry.



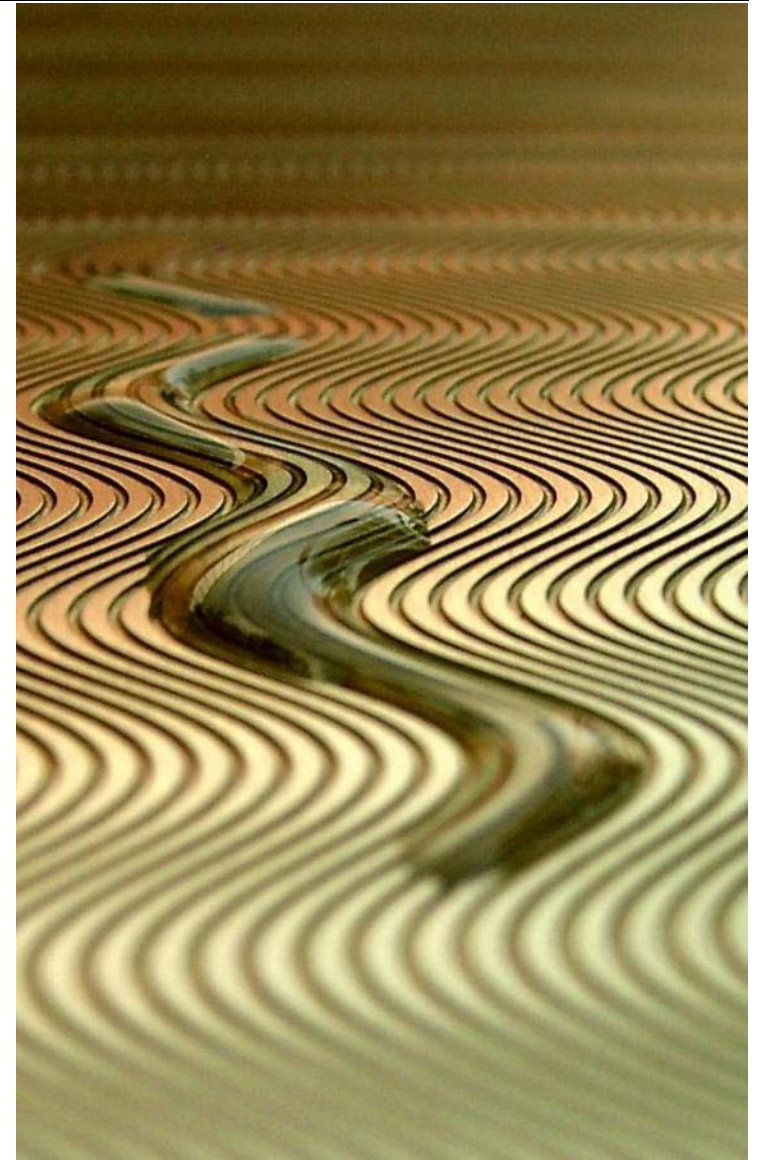
Leading in Research



TECHNISCHE
UNIVERSITÄT
DARMSTADT

Success with the excellence initiative by the German federal and state governments for the development of cutting edge research:

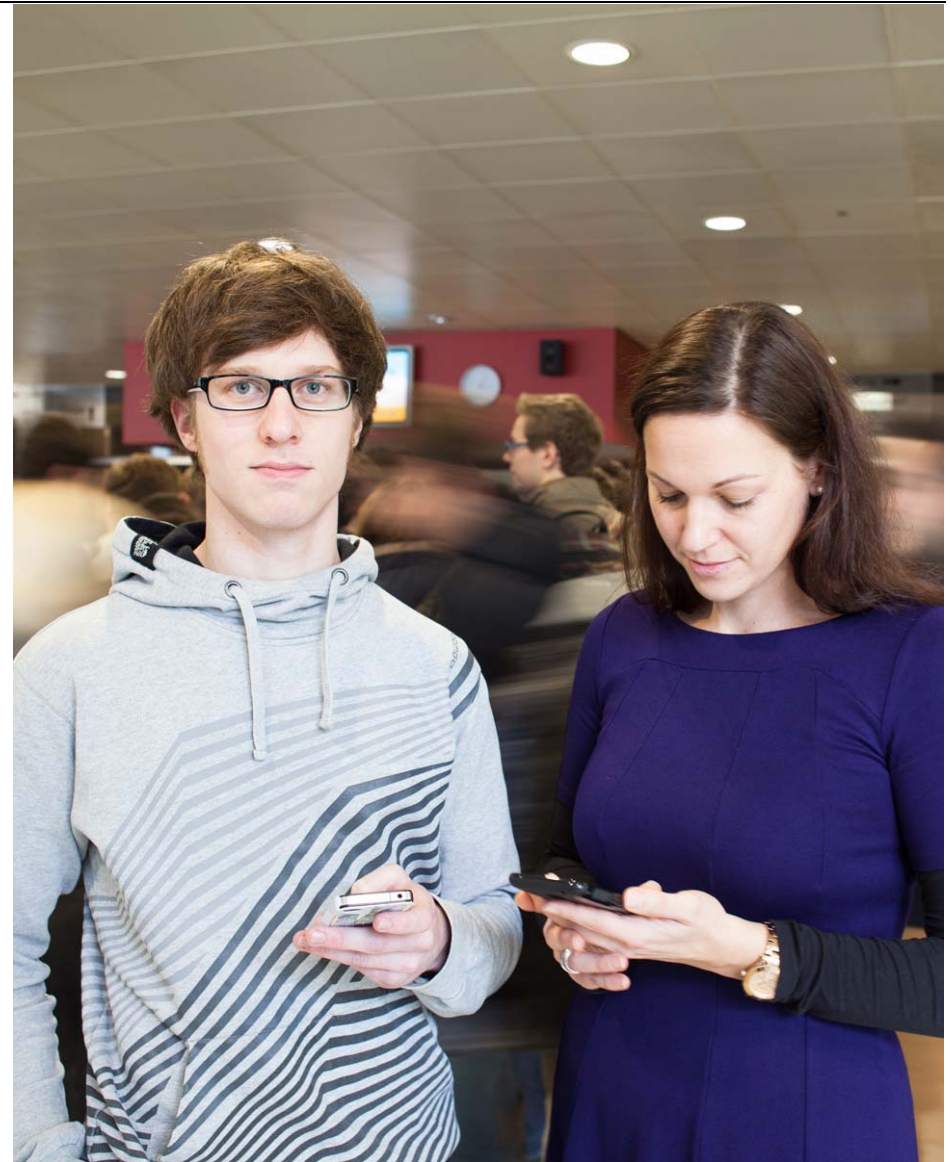
- Cluster 'Smart Interfaces': Making material surfaces more efficient and more durable
- Darmstadt Graduate School of Energy Science and Engineering
- Graduate School of Computational Engineering: Computer based modeling, analysis and simulation
- Involvement in the cluster 'Formation of Normative Orders' at the Goethe University Frankfurt



Leading in Research

Five Collaborative Research Centers funded by the German Research Association (DFG):

- MAKI – Multi-mechanism-adaptation for the future internet
- Control of uncertainties in load-carrying structures in mechanical engineering
- Integral sheet metal design with higher order bifurcations
- Nuclear Astrophysics and Fundamental Experiments at Low Momentum Transfer at the Superconducting Darmstadt Accelerator
- Electrical fatigue in functional materials



Foresighted

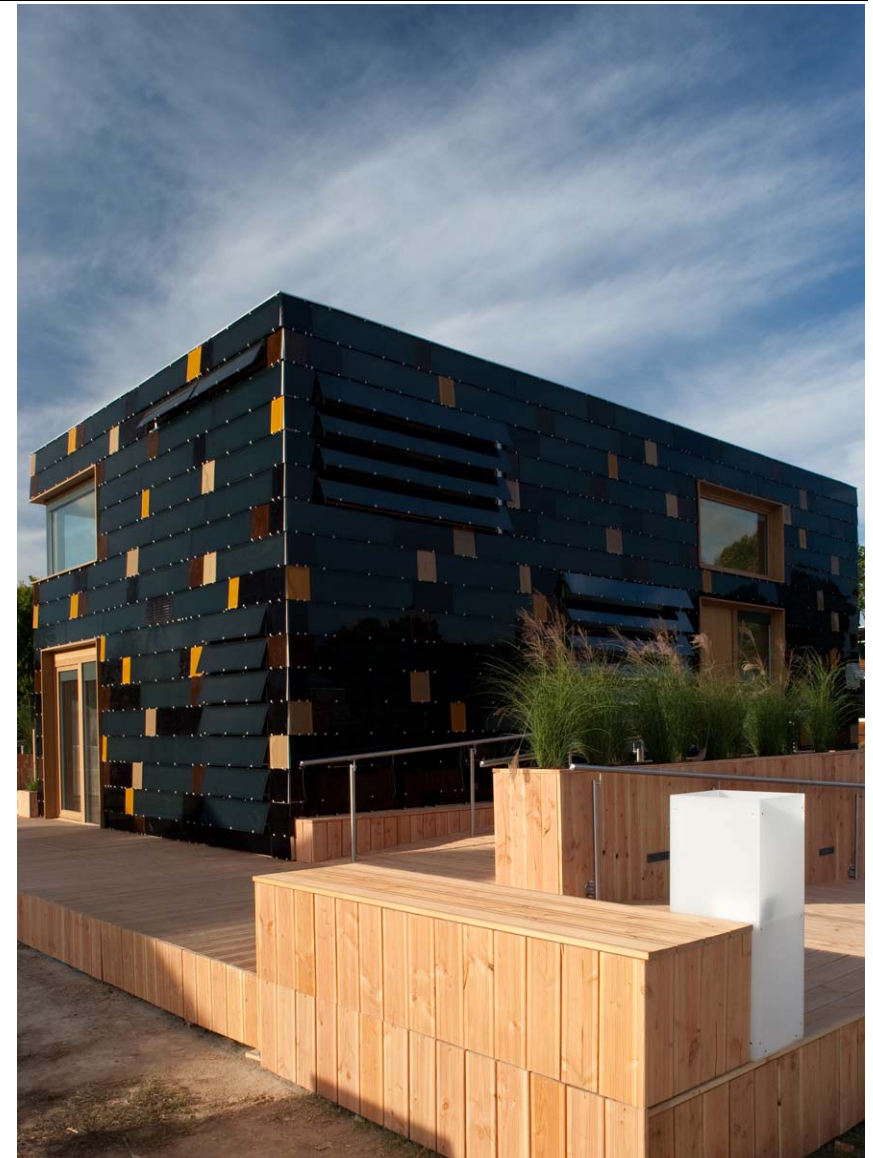


TECHNISCHE
UNIVERSITÄT
DARMSTADT

We lead in future areas such as energy and mobility, communication and information, construction and living.

In 2007 and 2009 our team of architecture and electrical engineering students won the 'Solar Decathlon' competition sponsored by the US Department of Energy. We presented the **most future oriented solar house** that generates more energy than it uses up.

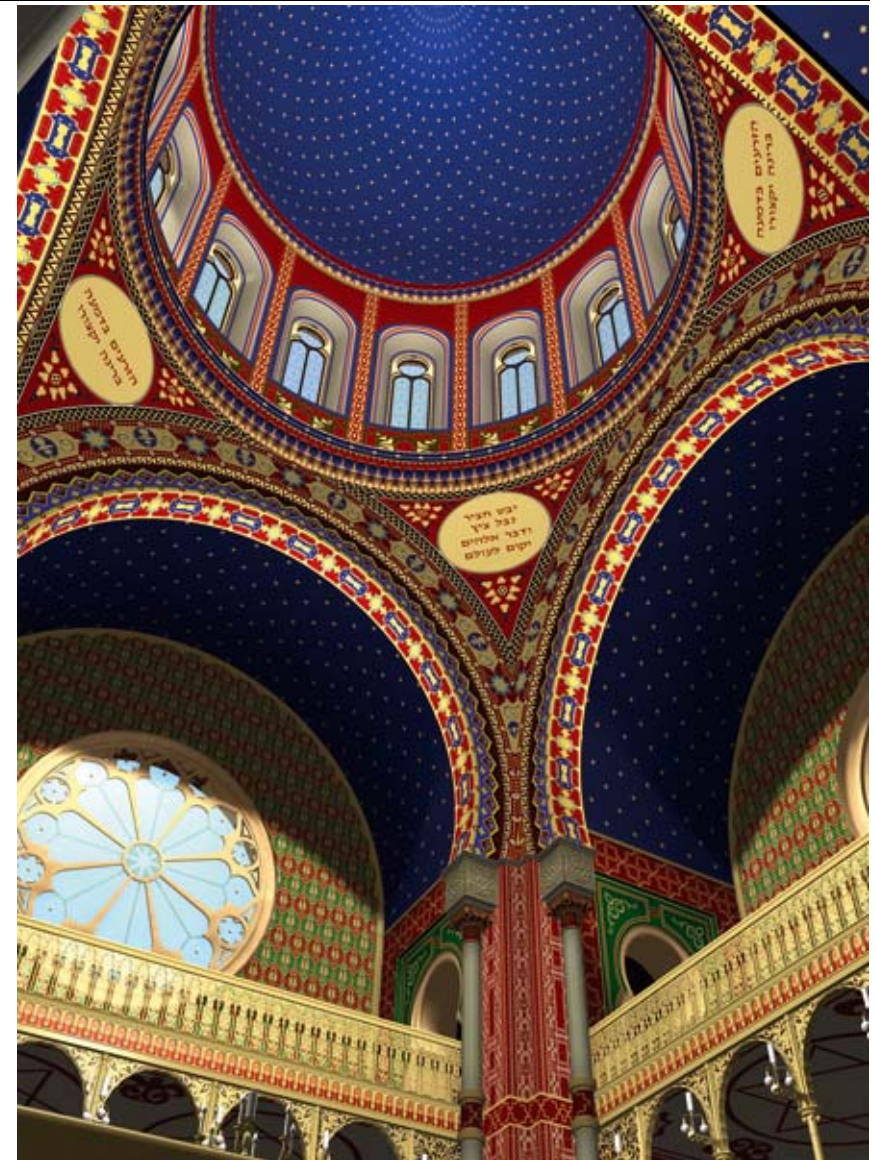
Masterplans for logistics and traffic, intelligent and energy efficient and secure technology for aircraft, car, train: in collaboration with economics, mathematics, social sciences, civil engineering, computer science, mechanical engineering, electrical engineering.



Acting Responsibly

We recognize our social responsibility in the fields of science and development. They are the benchmark of our actions.

Information and communication technology in architecture: **virtual reconstructions of destroyed synagogues** in Germany during the Third Reich. A new form of cultural memory.



A Scientific City



TECHNISCHE
UNIVERSITÄT
DARMSTADT

... with over 30 research and academic working institutions,
among others:

- European Space Association ESA/ESOC
- European Organisation for the Exploitation of Meteorological Satellites EUMESAT
- GSI Helmholtz Center for Heavy Ion Research
- Three Fraunhofer Institutes
- Hochschule Darmstadt / University of Applied Sciences



With Inventive Talent

Businesses from Darmstadt have earned international recognition. People achieve great things in this city.

Merck
Liquid Crystals

software ag
IT Business Solutions

Deutsche Telekom AG
Communication

... research, development, products,
trends and visions, worldwide.



We are Recommended



“In my opinion you must **definitely** go to Darmstadt.
They have a good Polytechnic School.”

Albert Einstein 1919

