

www.ohm-university.eu



Degrees we offer

The department of Mechanical Engineering and Building Services Engineering places great emphasis in their degree programs on the high quality of the course contents. Learning with a practical focus is another important criterion. This is guaranteed by a large number of internships accompanying the theoretical lectures, through the internship semester in the bachelor's degree programs, through many lecturers from industry, through a large number of final theses in industry, etc.

Bachelor's Degree Programs

seven semesters each including an internship semester

Mechanical Engineering (B. Eng.)

Specializations: Power Engineering, Vehicle Engineering, Design and Development, Production Technology

Building Services Engineering (B.Eng.)

International Business and Technology (B.Eng.)

with other departments

Master's Degree Programs

three semesters each

Mechanical Engineering (M.Eng.)

Building Services Engineering (M.Eng.)

with the Munich University of Applied Sciences

Energy Management and Energy Engineering (M.Eng.)

with the Ansbach and Weihenstephan Universities of Applied Sciences as well as other departments

New Materials, Nano and Production Engineering (M.Eng.)

with other departments

Facility Management (continuing education) (M.F.M.)

with the Munich University of Applied Sciences

All programs are accredited by ASIIN or AQUIN.

Doctoral Programs

The department offers doctoral programs in the form of long-standing cooperative doctoral programs with partner universities, often with the involvement of companies. Doctoral work thus takes place in the department as well as in the company. The supervising universities are located in Germany (e.g. University of Erlangen or University of Bayreuth) or abroad (e.g. Liverpool John Moores University, Great Britain). In addition it is also possible to take part in a research training group.

Who we cooperate with

Companies and public authorities:

- Technology and innovation consultancy
- Applied research and development
- Interdisciplinary projects, associated partnerships
- Further training and continuing education
- Measuring and testing services
- Expert opinion, studies
- Cooperation in internship semester and final theses
- For future employees:

Degree program with a strong practical focus (International Co-operative Studies, ICS, longer-term contract between students and companies) or integrated degree program (parallel academic study and apprenticeship)

Universities and science:

- Exchange of students (internship semester and final theses)
- Double bachelor's and master's degrees
- Exchange of lecturers (guest lectures)
- Joint research projects

International partner universities:

The department fosters contacts with about 20 universities all over the world, including such renowned universities as Monash University in Australia, Tongji University in Shanghai and Tec de Monterrey in Mexico.



Where to find us

Directions

The Ohm University campus (blue fields on map) is located near downtown Nuremberg and easy to reach by **public transport**. If arriving by **car** from any direction, follow the signs to downtown („Centrum“) and to the university („Hochschule“).

How to contact us

Campus **1** at Keßlerplatz 12, Building A, Room A 316

Contact:

Phone: +49 911/5880-1345, -1351

Fax: +49 911/5880-5135

Email: mb-office@ohm-university.eu

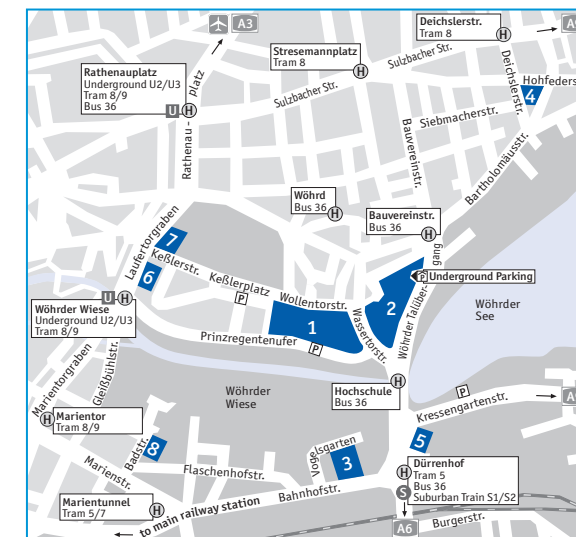
Internet: www.ohm-university.eu

Postal address:

Georg-Simon-Ohm-Hochschule Nürnberg

Fakultät Maschinenbau und Versorgungstechnik

Postfach, 90121 Nürnberg



Department of Mechanical Engineering and Building Services Engineering

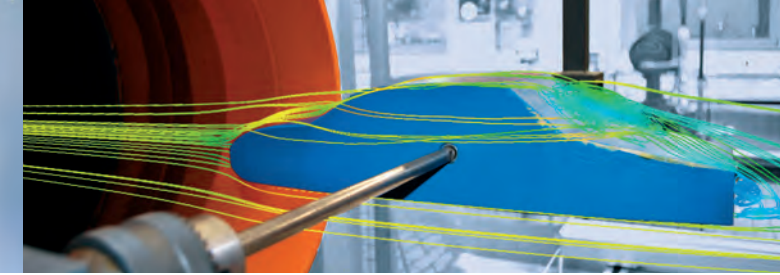
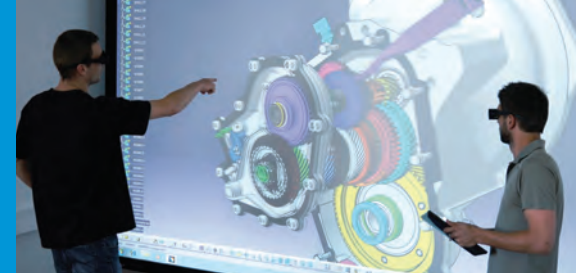
October 2011

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GEORG SIMON OHM
UNIVERSITY OF APPLIED SCIENCES NUREMBERG



OHM creates...
futures.



Who we are

Georg Simon Ohm University of Applied Sciences Nuremberg

Ohm University is a university of applied sciences with a strong practical focus in both academic education and research activities. Twelve departments offer basic and advanced degree programs as well as professional development programs and cooperative education programs.

With more than 9,500 students, 266 professors, and 346 lecturers, OHM is the second-largest university of applied sciences in Bavaria and one of the largest nationwide. The most research-intensive of all Bavarian universities of applied sciences and leading in third-party funds, OHM maintains excellent ties with local and international companies.

The university is also active as a global player and has established more than 130 partnerships with other universities worldwide. This facilitates international exchange programs and benefits our approximately 1,100 international students from 96 nations.

Department of Mechanical Engineering and Building Services Engineering

Around 1,200 students are currently enrolled and supervised in the department by 30 professors. Approximately 40 external lecturers from regional companies provide direct insights into practical applications in the field. 20 state-of-the-art laboratories and other computer rooms are available for internships, research and lab work, for example, in Applied Computer Science, Machine Tools, etc.

The department is also involved in numerous cooperative projects with industry and business that students can actively participate in.



The Department offers

Links between teaching, practice and research

All the facilities in the department

- are used for internships within the course offers as well as final theses and projects of application oriented research and development
- are equipped with modern machinery and equipment
- have a focus in external projects (institutes and competence centers) or internships and final theses (laboratories)
- facilitate an optimal link between teaching, practice and application oriented research and development

Laboratories



- Applied Computer Science
- Automation Engineering
- Computer-Aided Design (CAD/CAE)
- Control and Feedback Control Systems
- Energy Engineering (with heating, air-conditioning and refrigeration engineering)
- Engineering Strength and Structural Element Optimization
- Fluid Mechanics and Turbo-Engines
- Internal Combustion Engines
- Machine Tools
- Materials Engineering I and II
- Metrology
- Process Control Engineering
- Quality Assurance
- Robotics
- Sound and Vibration Technology
- Vehicle Engineering

Institutes



Institute for Energy and Building

The Institute for Energy and Building offers services and the handling of research projects in the following areas

- Building system engineering (heating, air-conditioning, and ventilation)
- Facility management
- Energy management



Institute for Vehicle Technologies

The Institute for Vehicle Technologies is the partner for knowledge and technology transfer in the field of competence

for transport and logistics in the Nuremberg region and engages in applied research and development in the following areas:

- Rail and road vehicles
- General mechanical engineering
- Internal combustion engines
- Components and systems for vehicles/machines

Competence Centers

3D Visualization Center

The 3D Visualization Centre represents a cooperation of experts from the departments of Architecture, Design, Electrical Engineering, Precision Engineering, Information Technology as well as Mechanical Engineering and Building Services Engineering.

They collaborate in developing new methods and tools for 3D visualization, which saves time and expense in product development processes, at the same time enhancing the product quality.

Competence Center for Analytics, Nano and Materials Technology

All of the Georg Simon Ohm University of Applied Sciences expertise and experience is made available to the area of Materials Chemistry and Materials Science Technologies, ranging from the analysis, characterization and testing of raw materials, materials and structural elements up to the development of new materials and systems.

Professors in the faculty are involved in the **Competence Center for Energy Engineering**, the **Competence Center Logistics**, and the **Environmental Institute Neumarkt**.

Examples of Projects



Power Engineering

- A key figure based interpretation method for ice-water plants
- Increase in energy efficiency of the chiller



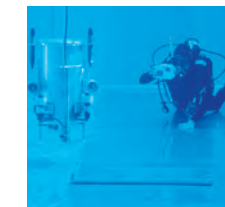
Vehicle Engineering

- Development of homogeneous, flameless combustion in porous reactors under pressure to produce an almost emission-free internal combustion motor.



Design and Development

- Experimental investigation of tensions and strength properties in carbon fiber reinforced plastic (CFRP) samples with similar dimensions to structural elements and comparison with numerical analyses.



Production Technology

- Planning and realization of an under water robot for inspecting tanks
- Planning and realization of an application environment for product data modeling in small and medium-sized companies and implementation in a production internship in the Mechanical Engineering degree program.



Building Services Engineering

- Starting up a fuel cell
- NAERCO (Sustainable Refurbishment of Heating Systems by Energy Performance Contracting) - Technical scientific accompanying research (ieg)