

Area Mecatrónica: Oferta de Beca 650 EUROS/mes para Master en FH Karlsruhe

Plazo postulación: Marzo 31, 2003. Inicio en septiembre'03

El Depto. de Relaciones Internacionales de la FH Karlsruhe ofrece becas “Baden Württemberg” para DOS estudiantes que sigan el Programa “Master’s Program Sensor Systems Technology”. Cada beca es de **650 Euros/mes.** El programa parte en septiembre y dura normalmente 3 semestres.

Interesados adjuntar solicitud (en inglés) con:

- Curriculum Vitae
- Certificado de Bachelor (“Licenciatura” o “egresado Ing. Civ. Elo”).
- Certificado de Notas
- TOEFL (min. 550)
- Altamente recomendado es el examen GRE general

Consultas: Prof. J.Pontt / Depto. Elo., jpo@elo.utfsm.cl

más información: <http://www.fh-karlsruhe.de/fbmn/st/master>

Ver: Folleto adjunto.....24.02.2003

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Fachhochschule Karlsruhe
Hochschule für Technik

University of Applied Sciences

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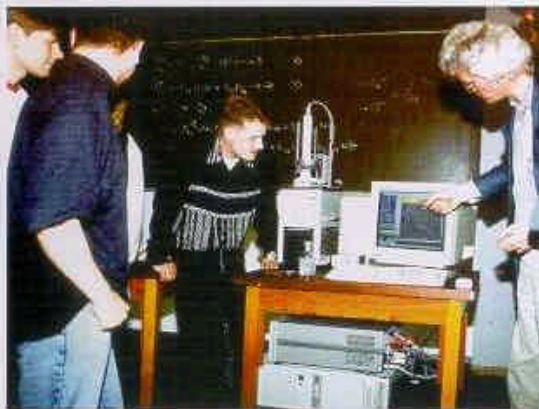
Master Degree Program
Sensor Systems Technology

WHAT is sensor systems technology?

Sensor systems technology (SST) plays a key role in technical innovation. The electronic intelligence of a system can be designed to recognize the status of a non-electronic environment and to convert this information into electrical signals for further processing.

Some of the environmental parameters can be detected by human senses such as sight, hearing, taste, smell, and touch but sensor devices are even able to measure parameters like magnetic and electric field, radiation, gas concentration, chemical activity, and many more.

In daily life, the reliability of sensor systems even under extreme conditions, e.g. in automotive applications, is of vital importance. The success of most technical applications depends strongly on the technology used to develop a suitable sensor system.



Discussion of a student's project for monitoring waste water.

Sensor systems technology

- increases process efficiency and reduces costs of products.
- enables innovation in biotechnical process technology.
- is essential for global environmental monitoring and medical technology.
- makes safety and reliability in particular in automotive technology possible.

WHERE is the course offered?

Karlsruhe University of Applied Sciences: Given the impressive concentration of research centers and universities in and around Karlsruhe, the Karlsruhe University of Technology provides the perfect environment for students studying SST.

A wide range of additional courses is offered for all students on campus without any additional fees. In addition, the Office of International Education assists students from foreign countries. Their program includes intensive courses in German as well as assistance with housing, administrative procedures, financial questions, and applications for grants and scholarships.



City of Karlsruhe with castle.

The City of Karlsruhe: Karlsruhe is a beautiful city, a city to enjoy live, not far to the German Wine Route, the Black Forest and France. The city, the former residence of the duke of Baden, is well known as a dynamic University town. In Karlsruhe you will find interesting cultural-historical monuments in lots of green spaces and extensive forests.

To know Karlsruhe is to love Karlsruhe.

WHY study SST?

The interdisciplinary field of SST was established to address the need for engineers who understand the complexity and diversity of areas in which sensors and sensor systems are used. The Master's program is designed to reflect the wide range of applications in SST. Students acquire both a broad understanding of the principles governing sensors and sensor systems, as well as the ability to design complete complex systems.

Career Opportunities:

- As the sensor market is growing rapidly, your chances for finding a challenging job are excellent.
- Progress in microelectronics and information technology has also led to a growing demand for engineers with a sound background in SST.
- The interdisciplinary knowledge qualifies for management positions.

Degree Program:

- You can finish your studies within 18 months.
- You receive an internationally recognized Master's degree accepted as qualification for doctoral studies.
- You do your practical courses in small lab groups.
- The courses are oriented toward the needs of industry.
- The interdisciplinary courses cover various fields in engineering, physics, chemistry, management, business, and languages.
- The projects offer you the opportunity to become familiar with the most recent technologies.
- Mentors will guide you fast and efficiently through your studies.
- Depending on your interests, you may choose among various interesting electives.
- The courses are given in English.
- Intensive German language courses are offered.

WHAT does the course comprise?

The SST Master's course includes lectures in theory, computer science, environmental issues, language, and management as well as project work in close cooperation with industry. The wide selection of courses allows for lively interaction between SST and its neighboring disciplines.

Curriculum

- **Principles of Sensor Systems**
Biological, Chemical, Optical, Physical Sensors;
Opto-Electronics, Sensor Materials.
- **Sensor Signal Processing**
Automotive Sensors, Bus Systems, LAN Systems,
Theoretical Aspects, Communication and
Visualization, Digital Image Processing, Processors,
Safety and Reliability.
- **Computer aided Sensorics**
Computer Aided Labs, Signal Processors, Pattern
Recognition, Projects.

- **Area of Specialization**
Environmental Technology, Numerical Simulation, Advanced Programming, Hybrid Technology, Imaging Systems in Medicine, Medical Sensorics, Micro Systems.

- **Languages & Management**
Business, Language Courses, International Project Management, Electives, Teamwork and Leadership

To help our students complete their Master's degree, we offer them an excellent learning environment:

- superior teaching staff from academia and industry;
- lively communication between students and professors;
- optimal combination of theory and practice;
- highly-qualified supervision of projects;
- constant input on the latest developments in sensor technology.

WHO may be admitted to the Master's program?

Successful applicants for the Master's program must show that they have a

- Bachelor (at least a C grade-point average with 180 credit points) or a first degree from a college or university, e.g. Dipl.-Ing., Dipl.-Ing. (FH) or Dipl.-Ing. (BA) in an appropriate field; and
- Sufficient proficiency in English: TOEFL-Test or equivalent (local examination is possible).

WHAT fees must be paid?

- There are no tuition fees for the degree program.

WHEN can I start?

- **Wintersemester** (apply until 15th July):
German language course: 1st week of September
Study Programme: 1st week of October
- **Sommersemester** (apply until 15th January):
German language course: 1st week of March
Study Programme: 3rd week of March

WHERE can I apply?

Send a letter of application including copies of diplomas and degrees, transcripts, and a curriculum vitae to:

Fachhochschule Karlsruhe Hochschule für Technik
University of Applied Sciences
Department of Mechatronic and Natural Sciences
Moltkestraße 30
D-76133 Karlsruhe, Germany
E-mail: sgst.SzM@fh-karlsruhe.de
Fax: +49 (0) 721 925-1301

WHERE can I get more information?

Internet: <http://www.fh-karlsruhe.de/fbmn/st/master>
Phone: +49 (0) 721 925-1300