Engineering and Related Sciences

Photogrammetry and Geoinformatics

Institution
Hochschule für Technik Stuttgart
(Stuttgart University of Applied Sciences)

Location
Stuttgart is a vibrant, fascinating city and the state capital of Baden-Wuerttemberg. It is the economic, cultural, sporting and social hub of a region in the heart of Europe with more than 2.5 million inhabitants. The city is surrounded by beautiful countryside; the Black Forest and Lake Constance are highlights in southern Germany and are not far away. The University of Applied Sciences (UAS) is located in the heart of Stuttgart. The UAS has a long history with a rich tradition in engineering education since 1832.

Course focus
The M.Sc. course aims at educating future decision makers and senior engineers of information and land management projects, national authorities for mapping, photogrammetry, land consolidation, cadastr, forestry, agriculture, rural and urban planning or environment monitoring.

The postgraduate course offers scientific and practice-oriented education and training in the fields of photogrammetry, remote sensing and geoinformatics. An important objective is the transfer of up-to-date techniques to practice, under various technological conditions.

Photogrammetric technology is trained on modern digital workstations including sophisticated analytical systems. Focus is on processing aerial photographs, from scanning, automated aero triangulation and acquisition of digital elevation models, to orthoimage generation and topographic and thematic mapping. Gaining experience in working with alternative data sources of increasing importance, like high resolution remote sensing satellites and radar and airborne laser scanning, round off modern photogrammetric education.

The main topics in the field of geoinformatics are the acquisition, storage, analysis, retrieval and display of spatial related data, concerning both earth's physical features and the man-made environment. Studying the methods for data modelling in geoinformation systems, design and handling of diverse databases, GIS-data formats, GIS customisation including programming, all accompanied by intensive training are important parts of the postgraduate course. Most recent developments like world wide web technologies, 3D-visualisation and integration of GIS and photogrammetry prepare course participants for the future.

A full-time research project aiming at the elaboration of a Master’s thesis within six months concludes the programme.

Target group
The course is designed for all kinds of professional producers or users of geodata (e.g. in photogrammetry, geodesy, civil engineering, land surveying, agriculture, cartography, forestry, geography, geology), in particular from developing countries, who are involved as decision makers or project engineers in the acquisition, administration and use of geodata in the context of geoinformation systems, photogrammetry and remote sensing.

Course language
English
**Entry requirements**

- Degree (equivalent of B.Sc.) in Civil Engineering, Geodesy, Geography, Agriculture, Forestry or corresponding degrees of other professions related to geodata
- Two years of competent professional experience are required
- English: TOEFL (550 PBT or 79 iBT) or IELTS (Band 6) – certificate

**Degree awarded**
Master of Science (M.Sc.) in Photogrammetry and Geoinformatics

**Course begins**
Every year in October

**Course duration**
18 months (two semesters and six months supervised study with Master’s thesis)

**Duration of German language course prior to beginning of programme**
2 months (for students awarded a DAAD scholarship)

**Application deadline**
15 October at the University

**Remarks**
The study course is accredited by ASIIN, the Accreditation Agency for Study Courses in Engineering, Informatics, Natural Science and Mathematics. Complete applications must be submitted in English. A good mathematical background and good computer skills are required. It is difficult to find furnished apartments in Stuttgart; therefore, we advise against bringing your family.

In addition to the official DAAD application form, candidates are required to submit a particular course application form, which is available at http://www.hft-stuttgart.de.

**For further information contact**
Hochschule für Technik Stuttgart
Prof. Dr.-Ing. Dietrich Schröder
Schellingstrasse 24
70174 Stuttgart
Germany
Phone: +49-(0)711-8926-2612 or 8926-2709
Fax: +49-(0)711-8926-2556
Email: master-pg@hft-stuttgart.de
Website: http://www.hft-stuttgart.de