UNIVERSITY PROFESSOR

VISUAL COMPUTING

INFORMATION FOR APPLICANTS
2023

WHO WE ARE.

TU Graz

Graz University of Technology is the oldest science and technology research and educational institute in Austria. For over 200 years, it has been an important university in the international research and education network of science. The university achieves top performances in its five Fields of Expertise and boasts intensive collaboration with other national and international research and educational establishments and with business and industry worldwide.

CS & BME

The Department of Computer Science and Biomedical Engineering is an internationally highly ranked department committed to excellence in research and teaching. The research at the department covers a broad spectrum of topics that are reflected in our main research areas Biomedical Engineering, Security and Safety, Artificial Intelligence, and Visual Computing. We are proud of our outstanding basic and applied research and encourage interdisciplinary projects. Moreover, we foster a close dialogue with industry and encourages and support the creation of spin-off companies.

JOB DESCRIPTION

We are looking for a candidate with proven scientific expertise who will represent the field of Visual Computing in research and teaching.

The following areas are of particular interest: Computer graphics, image processing, visualization, computer vision, virtual, mixed and augmented reality, and machine learning for visual computing.

The professorship will be part of the Institute of Computer Graphics and Vision which is an internationally visible research environment with more than 70 researchers. The successful candidate will complement the existing strengths in the department, will build an internationally visible group, will be an engaged teacher in the Computer Science programs at the Bachelor's, Master's, and PhD level, and will actively participate in academic self-administration.

At the Department of Computer Science and Biomedical Engineering undergraduate courses are taught in German or English, graduate courses are taught in English.

REQUIRE-MENTS

- A completed university education with a doctoral degree (PhD) in a relevant field
- A relevant habilitation (venia docendi) or an equivalent qualification
- Excellent scientific achievements
- Excellent didactic and pedagogical skills
- Management and leadership abilities
- Excellent command of English and command of German or the willingness to acquire it

We also value
- International experience and integration in the international research community
- Experience with acquisition of research grants and/or industrial collaboration
- Experience in gender equality and diversity.

We expect the successful candidate to transfer her or his residence to the area of Graz.

OUR OFFER

The advertised position is a tenure full professorship with a competitive salary. The university will provide funding for one or more PhD students (research and teaching assistants) and the necessary research equipment.

Graz University of Technology provides excellent working conditions in a vibrant scientific community, combined with the outstanding living quality of the Graz area. We also support your partner's career development through a dual career office and assist with the relocation process. A combination of national and European agencies provides an excellent funding landscape and ample opportunities exist to collaborate with industry.

EQUAL OPPORTUNITY EMPLOYER

Graz University of Technology aims to increase the proportion of women, in particular in management and academic staff, and therefore qualified female applicants are explicitly encouraged to apply. Preference will be given to women if applicants are equally qualified.

Graz University of Technology actively promotes diversity and equal opportunities. Applicants are not to be discriminated against in personnel selection procedures on the grounds of gender, ethnicity, religion or ideology, age, sexual orientation (Anti-discrimination).

People with disabilities and who have the relevant qualifications are expressly invited to apply.

DEPARTMENT OF COMPUTER SCIENCE & BIOMEDICAL ENGINEERING

Our department ranks in the **European top 30** for Computer Science and Biomedical Engineering, and is home to the university's most highly cited researchers. The department is among the top departments globally for selected areas. **Three ERC grants** speak for the research excellence of the department, and we have a broad portfolio of research grants in both basic and applied research.

Through research and teaching, the department is a driver of the Styrian economy. Well educated graduates and a close cooperation between the department and its **industrial partners** contribute to the growth of the local industry, the arrival of new companies, and a number of **successful startups**. Our research has motivated companies such as Microsoft, Amazon, and SGS to establish subsidiaries in Graz.

The university encourages startups, and a large proportion of existing startups were started by our students.

For our students, we offer **study programs at all levels** including bachelor's, master's and PhD levels. The department teaches 4700 students overall, almost one-third of our university's student. All master's programs are taught in English.

One of our greatest strengths is an atmosphere of mutual respect and collaboration between faculty, staff, and students.

CS & BME

INSTITUTE OF COMPUTER GRAPHICS AND VISION

The Institute of Computer Graphics and Vision is the only Austrian academic group that addresses Visual Computing in science, research and teaching. Seven professors appointed at the institute lead a research staff of around 70 researchers, most of them PhD students. The institute awards ~10 PhD degrees per year and publishes nearly 100 peer-reviewed papers.

Research

The seven groups at the institute cover a wide range of research topics.

- Prof. Horst Bischof: computer vision, recognition and surveillance, medical image processing, robot vision
- Prof. Friedrich Fraundorfer: 3D computer vision, robotics, drones
- Prof. Denis Kalkofen: mixed and augmented reality
- Prof. Markus Steinberger: computer graphics, GPU techniques, parallel algorithms
- Prof. Thomas Pock: mathematical models for computer vision and imaging, optimization
- Prof. Alexander Plopski: advanced mixed reality interfaces lab
- Prof. Dieter Schmalstieg: augmented reality, virtual reality, computer graphics, visualization and human-computer interaction

The track record of these researchers is extensive, including 2 x FWF START prize, 1 x ERC grant, and 4 x Christian Doppler Laboratory, as well as many awards and recognitions.

Teaching

The institute offers an extensive program of lectures in visual computing, contributing to the bachelor program and to three majors in the master's program of computer science (visual computing, interactive systems, game engineering).
Vision
Visual computing is on the rise, pervading almost every aspect of human life that is transformed by digitalization. The vision is to let computers deal with visual information effortlessly, giving computers the ability to see the real world and, in turn, give humans the ability to see anything that can be imagined in a virtual world.

Mission

The mission of the institute is twofold: first, teach visual computing through research, and, second, obtain the highest level of excellence in scientific achievements in the area of visual computing. The main path to such excellence is through excellent students – from early motivation of bachelor students up to PhD graduates.
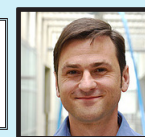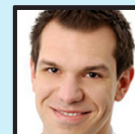
CURRENT FACULTY AT ICG

Horst Bischof

Friedrich Fraundorfer

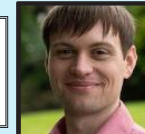Denis Kalkofen

Markus Steinberger

Thomas Pock

Alexander Plopski

Dieter Schmalstieg

WHY GRAZ?

CULTURAL AND UNIVERSITY TOWN IN THE STYRIAN TUSCANY.

Sunny spots in cheery wine gardens, promenades in the historic city centre and narrow, atmospheric alleyways, combined with over 2,300 hours of sunshine convey a southern European flair.

UNIVERSITY TOWN SINCE 1585

Know-how from Graz goes international. Six universities with more than 16 faculties form the basis of the excellent international reputation of Graz as a research and academical location. With nearly 60.000 students of 290.000 inhabitants, Graz more than other deserves the title "student town".

WHERE SCIENCE MEETS ART, CULTURE AND PASSION

Graz, the exciting city of culture, and particularly its historic city centre, offers the ideal location to stage seminars, trade fairs or conferences. It is not by chance that Graz is a UNESCO World Cultural Heritage site. The historic city centre around Schlossberg hill has been growing for centuries and became a township well worthy of admiration.

Organisers of scientific conferences in particular have appreciated Graz as a conference destination for many years. Every year, approximately 45000 conference guests make use of the historic and modern congress centres. They appreciate the city's easy accessibility, as much as its sophisticated cuisine and famous Austrian hospitality. A variety of supporting programmes and day excursions, served with Styrian delicacies and regional wines, add culinary value to any event.

Interested applicants are requested to submit the online application (csbme.tugraz.at/go/applications/visualcomputing/apply) including:

- a CV (with copies of diplomas)
- a list of publications highlighting the 5 most important publications
- a research statement describing past and planned research activities (5 pages max.)
- a teaching statement (5 pages max.) and evaluations of past teaching activities (if available)
- names and contact information of two references

Please send your application to the dean, Roderick Bloem, of the department of Computer Science and Biomedical Engineering at csbme.tugraz.at/go/applications/visualcomputing/apply.

Deadline: June 1, 2023

Hearings: **week of** September 18, 2023

For further question, please contact
Thomas Pock (thomas.pock@tugraz.at).