CS & BME

TU Graz

TENURE TRACK PROFESSOR (M/F/D) OF
SECURITY & PRIVACY

INFORMATION FOR APPLICANTS 2024

Who we are.

> Our faculty has changed a lot since it was founded almost 20 years ago and has grown to an impressive size.
>
> Dean Gernot Müller-Putz

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.

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.

Our Mission
We want to provide excellence in research and an excellent education to a broad group of students.

Events
Besides the annual summer party and Faculty Day, we also compete as a team in the Dragon Boat University Cup at the Graz Riverdays.

Job description.

We are looking for a candidate with proven scientific expertise in the field of Security & Privacy.

The following areas are of particular interest:

- **AI Safety and Security**
- **Privacy**
- **Cryptography**
- **Formal Methods for Security**
- **System Security**
- **Digital Identities**
- **Usable Security**

The successful candidate will cover one of these fields or any other field in Security & Privacy that complements the existing strengths in the department. The professorship will be part of the Institute of Applied Information Processing and Communications, which is an internationally highly visible research environment with more than 60 researchers in information security. It has been active in this field for more than 30 years and performs research in the following four areas: Cryptology & Privacy, Formal Methods, System Security, and Secure Applications.

The new professor will complement the existing strengths in the department, will build an internationally visible group, and 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 Graz University of Technology, undergraduate courses are taught in German or English and graduate courses are taught in English.

The advertised position is a tenure-track career position. After the conclusion of a qualification agreement, the job holder is appointed as an Assistant Professor. After a positive evaluation of the qualification agreement, the position will be turned into a permanent position as Associate Professor. After a further competitive procedure, a promotion to a Full Professor is possible.

Requirements.

Employment Requirements:

- A completed university education with a doctoral degree (PhD) in a relevant field.
- 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.

Selection Criteria:

- International experience and integration in the international research community.
- Experience with acquisition of research grants and/or industrial collaboration.
- Gender and diversity competences

More information and online application >>

Benefits.

- Interesting area of responsibility
- Collegial and friendly working atmosphere
- Flexible working schedule
- International training and teaching opportunities
- Seal of quality for in-house advancement of women
- Family-friendly employer
- Subsidy for public transport

- University's sports program
- Shopping Discounts
- Workplace Health Management
- Top research infrastructure and access to the latest technologies
- Exciting opportunities for professional and personal development
- Safe and stable working environment
- Company pension funds

Equal opportunity Employer

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).

*More about TU Graz
as an employer*

Our department.

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. Four 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 students. 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.

4700 students

11 institutes

4 research areas

250 scientific employees

7 student teams

4 ERC grantees

Our Institute.

The Institute for Applied Information Processing and Communications (aka IAIK) is Austria's largest research institute in Information Security. It builds upon a history of almost 40 years, and currently, more than 60 researchers work on topics like security architectures, side channels, cryptography, formal methods, and e-government.

Research Highlights

The institute is a major player in the field. Among its sparkling highlights are the standardization of ASCON as the algorithm for lightweight cryptography by NIST or the discovery of the processor vulnerabilities known as „Meltdown" and „Spectre".

IAIK cryptographers have also contributed to other major competitions in cryptography, like AES, SHA-3, and CAESAR; these contributions were always shortlisted or even won the competition. IAIK has built a strong presence in formal methods with a focus on reactive synthesis and, more recently, verification of security constructs. The institute also provides concepts for e-government solutions in Austria.

More about IAIK

Teaching

The courses of IAIK typically are among the best evaluated of the computer science curricula. Information security is part of three curricula at Graz University of Technology:

• Computer Science
• Information and Computer Engineering
• Software Engineering and Management

Currently, about 3,200 students are enrolled in the corresponding bachelor and master programs. The education in information security starts with a compulsory 7 ECTS course in the bachelor program and then continues with about 20 specialized elective courses during the master program.
There is an opportunity for the new professor in information security to teach one of the existing courses and establish new courses in information security. Teaching is done in English (Bachelor's and Master's).

IAIK also hosts LosFuzzys, a very successful student team competing in capture-the-flag competitions around the globe.

Our Research Areas

SECURE SYSTEMS

HEAD OF INSTITUTE | TEAM SESYS
Stefan Mangard

Team SeSys centers its research around hardware security, secure system architectures, cryptographic implementations and side channels.

TEAM CORESEC
Daniel Gruss

Team CoreSec researches the security of systems from a low-level perspective and develops techniques, attacks, and defenses in this area.

TEAM CRYPTENG
Sujoy Sinha Roy

Team CryptEng makes cryptography practical and more secure on hardware and software platforms.

CRYPTOLOGY & PRIVACY

TEAM CASTLE
Maria Eichlseder

Team Castle researches symmetric cryptography and cryptanalysis to create efficient ciphers that are secure in both theory and practice.

TEAM PARK
Christian Rechberger

Team Park cares about foundational and applied aspects of cryptologic security and privacy.

SECURE APPLICATIONS

TEAM SIC
Harald Bratko
Thomas Zefferer

Team SIC provides a comprehensive set of crypto products to make applications more secure.

TEAM A-SIT
Arne Tauber
Herbert Leitold

Team A-SIT focuses on identity management, exploring the security and functionality of digital identities and emerging technologies for the eGovernment domain.

TEAM A-SIT+
Peter Teufl

Team A-SIT+ applies cutting-edge research to enhance eGovernment systems, addressing the public sector's critical information security needs.

FORMAL METHODS

TEAM SCOS
Roderick Bloem

Team SCos researches formal system design methods and looks at both functional and security properties.

TEAM TRUSTED AI
Bettina Könighofer

Team Trusted AI focuses on designing trustworthy AI systems and ensuring they are safe, secure, transparent, accountable, robust, and unbiased.

New Building.

In Summer 2024 the construction of the Cybersecurity Campus Building has started. Our institute will move into this new building around Spring of 2026. The building is located centrally at the Campus Inffeldgasse of TU Graz.

This campus is a modern, green, and expanding campus that is also close to the city centre. It takes less than 10 minutes by bike.

Pictures: © eep architekten ZT–GmbH

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 330,000 inhabitants, Graz more than others deserves the title of "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 45,000 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.

Uhrturm
The clock tower, the symbol of Graz, majestically overlooks the city.
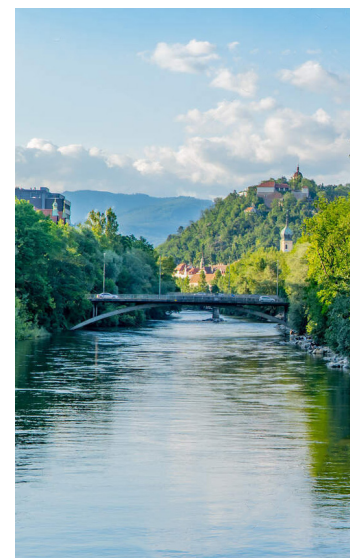
Mur
The Mur, which flows picturesquely through Graz, provides a charming scenery for walks.

UNESCO World Heritage Site
In 1999, the old town of Graz was declared a UNESCO World Heritage Site.

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Position identification number: **7050 / 2024 / 7636**

Interested applicants are requested to submit the **online application** 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

Deadline: November 15, 2024
Hearings: week of February 3, 2025

More information: **csbme.tugraz.at/go/applications/security**
For further question, please contact Stefan Mangard: **applications.csbme@tugraz.at**

Errors and omissions expected in this brochure. The legally binding announcement for this position is published in TU Graz' Gazette at mibla.tugraz.at