*INFORMATION FOR APPLICANTS*

TENURE TRACK PROFESSORSHIP

# SECURITY & PRIVACY

# CONTENT

# EXECUTIVE SUMMARY

The Department of Computer Science and Biomedical Engineering at Graz University of Technology is seeking applicants for the position of a **tenure track professorship for Security & Privacy at the** Institute of Applied Information Processing and Communications (IAIK).

The Department of Computer Science and Biomedical Engineering at Graz University of Technology is committed to excellence in research and teaching. The department's research activities cover a broad spectrum of topics that are reflected in its main research areas, **Biomedical Engineering, Safety and Security, Artificial Intelligence** and **Visual Computing**. We are proud of our outstanding applied and fundamental research expertise and promote interdisciplinary projects. Moreover, our department fosters a close dialogue with industry and encourages and supports the creation of spin-off companies.

We are looking for a candidate with proven scientific expertise in the field of Security & Privacy. The following areas are of particular interest:

• Formal Methods and Security
• Privacy Technologies
• Systems Security
• Usable Security & Privacy

The successful candidate will cover one of these fields or any other field in security & privacy that complements the existing strengths in the department.

# GRAZ UNIVERSITY OF TECHNOLOGY

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 international center for research and teaching. The university delivers top performances in its five Fields of Expertise: Advanced Material Science, Human & Biotechnology, Information, Communication & Computing, Mobility & Production, and Sustainable Systems. The university boasts intensive collaboration with other national and international research and educational establishments and with business and industry worldwide.

## DEPARTMENT OF COMPUTER SCIENCE & BIOMEDICAL ENGINEERING



Computer science is one of the fastest growing and most innovative sectors. This dynamic is also reflected at the TU Graz. With its **47 professors** and 10 institutes, the Department plays a central role within the university and focuses its research on four research fields **Artificial Intelligence, Visual Computing, Security & Safety,** and **Biomedical Engineering**. The Department's scientific achievements are remarkable: apart from employing three of the most cited researchers at TU Graz, it has brought out **three ERC and three Austrian START grant recipients** and is represented in major scientific rankings such as the Performance Ranking of Scientific Papers of the National Taiwan University. Moreover, the Department leads an FWF-funded national research network, a Christian Doppler Laboratory, a COMET Competence Center and acquires significant funding from EU and national sources.

As an innovation engine, the Department significantly contributes to the economy and has tremendous growth potential, with **30 start-ups with more than 1000 employees** to attest to that. The services of the Department have a great impact on TU Graz: its top position in international research and teaching, its visibility and effect on the society, its internationalizing PhD and Master studies, its inter-university cooperation and its industrial networking. The new professorship will be anchored in the Department of Computer Science and Biomedical Engineering and will strengthen the competence field „**Security & Safety**".

**" THIS PROFESSORSHIP IS AN ESSENTIAL ELEMENT OF THE SCIENTIFIC AND STRATEGIC ORIENTATION OF TU GRAZ. "**

HARALD KAINZ
RECTOR GRAZ UNIVERSITY OF TECHNOLOGY

# 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:

• Formal Methods and Security
• Privacy Technologies
• Systems Security
• Usable Security & Privacy

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 visible research environment with more than 60 researchers in information security. The institute collaborates closely with research groups and industry partners around the globe. It is a central part of the recently established Cybersecurity Campus Graz, which unites basic research, education, technology transfer, and industry partners in cybersecurity all under one roof.

The new professor 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. At Graz University of Technology, undergraduate courses are taught in German or English and graduate courses are taught in English.

# INSTITUTE FOR APPLIED INFORMATION PROCESSING AND COMMUNICATIONS
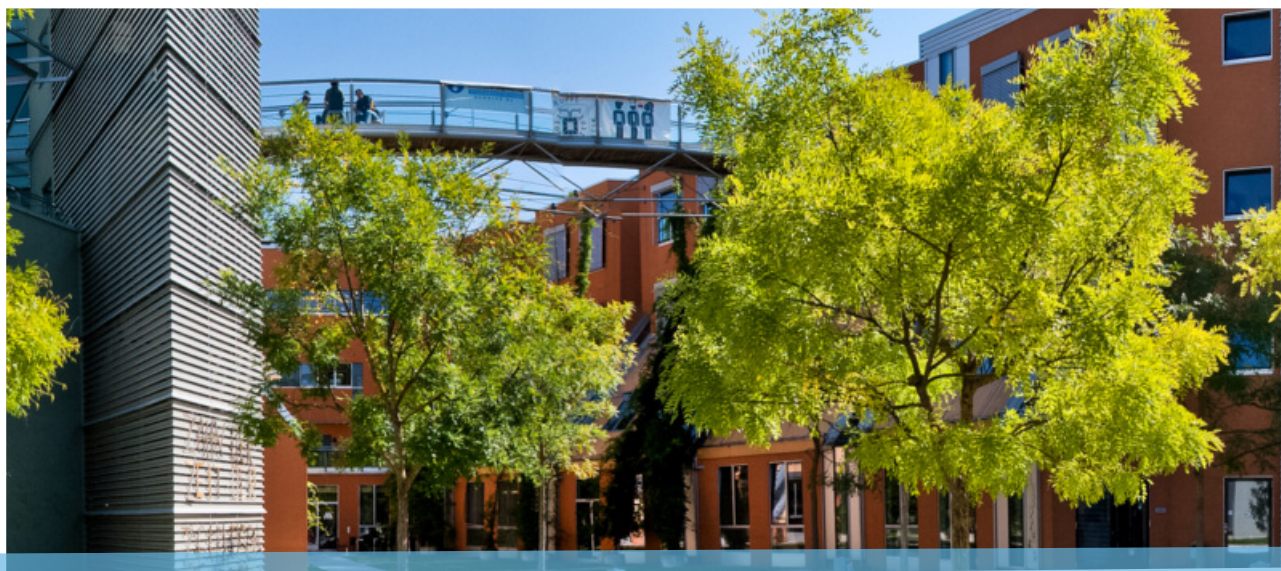


With 30 years of research in IT security, the Institute for Applied Information Processing and Communications (aka IAIK) is a major player in the field. More than 60 researchers work on topics like security architectures, side channels, cryptography, formal methods, or e-government.

Among the recent sparkling highlights of IAIK's research are the processor vulnerabilities known as **"Meltdown"** and **"Spectre"**. IAIK cryptographers have contributed to most 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.

We collaborate closely with research groups and industry partners around the globe. The recently announced **Cybersecurity Campus Graz** also creates a unique local environment. This new hub for information security unites basic research, education, technology transfer, and industry partners all under one roof.

The courses of IAIK typically are among the best evaluated of the computer science curricula. At bachelor's level, these courses are computer organization, operating systems, computer networks, systems programming, logic and computability, and information security. The courses at master's level are strongly influenced by IAIK's current research. IAIK also hosts LosFuzzys – a very active group of students who are among the top 50 teams worldwide in capture-the-flag competitions.

# CURRENT FACULTY AT IAIK

PROF.
STEFAN MANGARD
*Head of Institute, Secure Systems*

PROF.
RODERICK BLOEM
*Formal Methods*

PROF.
CHRISTIAN RECHBERGER
*Cryptography & Privacy*

ASS. PROF.
MARIA EICHLSEDER
*Cryptography & Privacy*

ASS. PROF. DANIEL GRUSS
*Secure Systems*

ASS. PROF.
SUJOY SINHA-ROY
*Secure Systems*

# INFORMATION SECURITY COURSES AT TU GRAZ



Information security is part of three curricula at Graz University of Technology:

- Computer Science
- Information and Computer Engineering
- Software Engineering and Management

Currently, about 2700 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 more than 10 specialized elective courses during the master program.

There is the opportunity for the new professor in information security to teach one of the existing courses as well as to establish new courses in information security. Teaching is done in English or German at the bachelor level. The master programs are all in English.

# WHY GRAZ?

## CULTURAL AND UNIVERSITY TOWN IN THE STYRIAN TUSCANY. WITH PLENTY OF SUN!

### CITY OF KNOWLEDGE

GRAZ HAS BEEN A 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 deserves the title "student town".

### CULTURAL CAPITAL

CITY OF CONTRASTS

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. Since the Middle Ages, the unique and well preserved architectural styles spanning from Gothic, Baroque, Renaissance, Art Nouveau and, of course, the modern, have not only seen an increase in value but are also indicative of a sense of tradition and art. In fact, contemporary art and architecture enrich the cultural scene as much as classical culture: the Graz Opera House, theatres and festivals of classical music. In 2003, Graz was also acclaimed European Capital of Culture. "The Friendly Alien" art centre and the Island in the Mur still bear witness to that year of celebration.

## CAPITAL OF CULINARY DELIGHTS

MEET WITH DELIGHT

Styria offers many local food specialties, like Styrian pumpkin seed oil, Käferbohnen beans, Grazer Krauthäuptel lettuce, and award-winning wines. The people of Graz have a unique gift for enjoying life and the Mediterranean atmosphere is palpable everywhere.

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.

## CONFERENCE VENUE GRAZ

WHERE SCIENCE MEETS ART, CULTURE AND PASSION

Organisers of scientific conferences in particular have appreciated Graz as a conference destination for many years. Being Austria's second largest city as well as an important research and business location, Graz has, with good reason, evolved into a renowned conference venue that enjoys an excellent international reputation. 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. Worth mentioning is the pleasant size of the Styrian capital. In fact, many of the excellent hotels are within walking distance of the conference centres. The rich choice of sights and cultural events is another decisive reason for choosing Graz.

WELCOME TO GRAZ!

" THIS PROFESSORSHIP IS
A REINFORCEMENT FOR
THE DEPARTMENT.
IT STRENGTHENS EXISTING
RESEARCH EXCELLENCE IN
SAFETY AND SECURITY
AT TU GRAZ. "

RODERICK BLOEM
DEAN, DEPARTMENT OF COMPUTER SCIENCE AND
BIOMEDICAL ENGINEERING AT TU GRAZ

APPLY
NOW!

## REQUIREMENTS FOR CANDIDATES

- A completed university education with a doctoral degree (PhD)
- Excellent scientific achievements
- Integration in the international research community
- 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
- Experience with acquisition of research grants and/or industrial collaboration

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

## 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. Until a balanced ratio of men and women has been achieved at the university, 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 who have the relevant qualifications are expressly invited to apply.

# OUR OFFER

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.

We offer an internationally competitive salary based on the profile of the applicant. The minimum annual gross salary according to the Austrian University Act for the position is **€ 4,371.80** including social and health insurance. This corresponds to category B1 of the collective agreement for employees of Austrian universities.

TU Graz 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 the relocation process.

# HOW TO APPLY

The position is listed with the position identification number 7050/21/008.
Interested applicants are requested to submit the online application
 (**https://csbme.tugraz.at/go/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 p. max.),
- a teaching statement (5 p. max.) and evaluations of past teaching activities (if available)
- names and contact information of two references

The application will be sent to the Dean of the Department of Computer Science and Biomedical Engineering within **https://csbme.tugraz.at/go/application/.**

For further questions please contact **Stefan Mangard** (**stefan.mangard@iaik.tugraz.at**).

# IMPORTANT DATES

The deadline for applications is **30 November 2021**.
The hearings for the professorship will take place in the week of **07 February 2022**.
Candidates should be available for interviews in this period.

**APPLY NOW!**

## CONTACT

Interested applicants are requested to submit the online application:
**csbme.tugraz.at/go/application/**

For questions please contact
Prof. **Stefan Mangard** (**stefan.mangard@iaik.tugraz.at**).

More on **csbme.tugraz.at**.

**TU Graz**

www.tugraz.at