

The Faculty of Electrical and Information Engineering of Graz University of Technology seeks to appoint a full professor of

## **Acoustics and Environmental Noise**

initially at the Institute of Fundamentals and Theory in Electrical Engineering, starting on February 1<sup>st</sup> 2023. The position is tenured according to Section 98 of Austrian University Act (§98 UG). The new professorship will be funded for the first five years, including infrastructure and staff, from a foundation pool of the FFG (Austrian Research Promotion Agency) with partner companies and TU Graz.

For this position, we are seeking a highly qualified and scientifically well-established individual who is deeply committed to represent the field of Acoustic and Environmental Noise in teaching and research focusing on theoretical principles, fundamental technologies and their applications.

Extensive research knowledge in the field of physical acoustics and interdisciplinary cooperation with the departments of electrical engineering, mechanical engineering, civil engineering and medicine are expected. In the field of acoustics, sound generation mechanisms, sound propagation, noise effects and noise protection are to be covered in particular, both in the field of physical modelling, measurement technology and numerical simulation. In addition to theoretical expertise in these areas, practical experience in the aforementioned areas is also expected. This also includes experience and active participation in standardisation committees at both national and international level. The expertise of the applicants covers several of the following areas:

- Research into physical noise mechanisms at the source and simulation of propagation, taking into account topography as well as atmosphere (meteorology, shielding, ground attenuation, etc.)
- Acquisition (smart and reliable measurement data acquisition), transmission, processing and analysis (sensor data fusion) of measurement data for the creation of intelligent noise emission maps
- Physical and psychoacoustic assessment of noise emission and immission
- technical and economic assessment of noise protection measures as well as research and development of new approaches to noise protection.

The main areas of application are to be in the fields of road, aircraft and rail traffic noise (acoustic properties of road surface layers, tyre noise, rail and wheel roughness, curve screeching, noise development by aircraft). In the long term, this professorship is to open up the application field of urban noise, in particular noise in residential areas with the goal of "the quiet city", in addition to the essential application field of traffic noise.

In addition to the professional requirements outlined above, the candidate should have excellent pedagogical and didactic skills (demonstrated by teaching experience in Bachelor's and Master's programmes), as well as a sustained interest in shaping the subject of acoustics for various degree programmes, in particular for the study of Electrical Engineering and Audio Engineering and for the development of a Master's programme in "Engineering Acoustics".

Cooperation is a key factor in research at TU Graz. Cooperation with the existing research groups of the Faculties of Electrical and Information Engineering, Mechanical Engineering and Economic Science, and Civil Engineering, which have focal points in the field of acoustics, is just as desirable as cooperation with surrounding and international, in particular the endowing companies, other universities and research institutions. This cooperation should lead to the interdisciplinary field of "Acoustics and Environmental Noise" being covered in its entirety in both research and teaching.

Applicants must have earned a doctorate (Ph.D.) in the required engineering discipline or in a closely related field from an Austrian or from an equivalent foreign university.

Key selection criteria are:

- outstanding academic qualification, verified by a habilitation degree (venia docendi) or equivalent scientific achievements
- excellent didactic skills
- gender and diversity competence
- leadership skills
- ability to work in a team and willingness for cooperation
- experience in teaching at university level
- integration in international research
- experience with university and industrial cooperation
- experience in the successful acquisition of third-party funds

To ensure effective international representation of the subject matter in teaching and research, applicants must be fluent in written and spoken English. If the successful candidate does not have sufficient knowledge of the German language, he or she must be willing to acquire such competence.

The successful candidate is expected to transfer his or her main residence to the Graz area.

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

Applicants are asked to forward a detailed application in electronic form (certificates and documents, curriculum vitae with a description of the applicant's scientific and professional career, publication list with copies of the five most important publications, an overview of his or her recent research and teaching activities and a concept for the development of acoustics in research and teaching) using the mandatory application form available at <https://www.tugraz.at/go/professorships-vacancies> by no later than

**July 10, 2022**

(e-mail timestamp),

attn:

Dean of the Faculty of  
Electrical and Information Engineering  
Univ.-Prof. DI Dr. Wolfgang Bösch, MBA  
Inffeldgasse 18/EG, 8010 Graz, Austria

E-Mail: [dekanat.etit@tugraz.at](mailto:dekanat.etit@tugraz.at)

The interviews are scheduled from September 26 to October 7, 2022, and applicants are kindly requested to reserve these dates.

The Dean: Univ.-Prof. DI Dr. Wolfgang Bösch, MBA

[www.tugraz.at](http://www.tugraz.at)