
As **Austria's largest research and technology organization** for applied research, we are dedicated to make substantial contributions to solving the major challenges of our time, climate change and digitization. To achieve our goals, we rely on our specific research, development and technology competencies, which are the basis of our commitment to excellence in all areas. With our open culture of innovation and our motivated, international teams, we are working to position AIT as Austria's leading research institution at the highest international level and to make a positive contribution to the economy and society.

Our **Center for Digital Safety & Security** is looking for new Ingenious Partner for our location in **Vienna**.

The research field **Enabling Digital Technologies** within the **Competence Unit for Security and Communication Technologies** is leading in applied 5G and beyond research of advanced reliable **wireless joint communication** and sensing systems for time sensitive use cases in the domain of railways, street transport, industrial automation and unmanned aerial vehicles.

As part of our multidisciplinary team, you are strongly encouraged to start a PhD, focusing your research on **6G Joint Communication & Sensing**:

# JUNIOR SCIENTIST (M/F/D) FOR SITE-SPECIFIC CHANNEL MODELLING FOR 6G (INCLUDING A PHD THESIS)

- You will explore and design numerical site-specific **radio channel representations** methods building on the AIT ray tracer running on a GPU cluster and the AIT quasi deterministic channel model.
- You will **investigate physical layer aspects of joint communication and sensing (JCAS)** for multi-antenna systems within European and national cooperative research projects.
- You will **validate the radio channel representations** with empirical measurement data gathered within the AIT 6G software defined radio lab using our 6G physical layer testbeds.
- Together with renown experts in the field, you will **publish** your **results** at international academic conferences and in scientific journals in the field of wireless communication. You will **gain experience in your research field**, that has high visibility and impact due to a large range of applications in the civil as well as defense domain.
- You will work in a **multi-disciplinary team** ranging from post-doctoral scientists to master students.

**Your qualifications as an Ingenious Partner:**

- Master degree (or very close to completion) in telecommunication engineering, electrical engineering or related fields. Technical skills for conducting research work in the lab and with numerical tools (C, Matlab, Python) and software defined radio components (NI USRP, Labview, GnuRadio).
- Willingness to start a doctoral studies at TU Wien.
- Interested in reading and writing scientific publications and enjoying application-oriented questions from industry.
- Analytical thinking and enthusiasm for highly innovative research.
- High level of commitment and team spirit.
- Exceptional written and oral communication skills (English and German).

**Details:**

- To pursue your PhD, you will be supervised by our AIT-colleague Thomas Zemen (Docent at the Institute of Telecommunications at TU Wien).
- **Starting date:** January 2025
- Admission at an university is compulsory and independent from the position at AIT.

**What to expect:**

The minimum gross annual salary on a full-time basis (38,5 h / week) according to the collective agreement is EUR 53.578,--. The actual salary will be determined individually, based on your qualifications and experience. In addition, we offer **company benefits**, flexible working conditions, individual training and career opportunities. Moreover, you will be part of our **AIT PhD community** with around 150 international students. As a research institution, we are familiar with the supervision and execution of PhD theses, and we are looking forward to supporting you accordingly!

At AIT diversity and inclusion are of great importance. This is why we strive to inspire women to join our teams in the field of technology. We welcome applications from women, who will be given preference in case of equal qualifications after taking into account all relevant facts and circumstances of all applications.

Please submit your application documents including your **CV, cover letter, certificates** and **contact details of at least 2 references**, online:**https://jobs.ait.ac.at/Job/236897**

**For further information please contact:**

Dr. Thomas Zemen, thomas.zemen(at)ait.ac.at

TOMORROW TODAY. WITH YOU.