

Munich, June 2025

*Opportunities
for Talents*

Are you passionate about novel computing concepts and the future of wireless communication? Do you want to be part of a team that is researching and designing next-generation (6G) wireless communication systems? If so, we have an exciting opportunity for you!

The Chair of Theoretical Information Technology offers a position as

Research Associate (f/m/d) Enhancing Wireless Communication Security through Physical Layer Techniques

Subject to personal qualification, employees are remunerated according to salary group E 13 TV-L. The position is funded until March 2029 with the possibility of an extension.

Physical layer security is a novel approach to generating security directly on the physical layer. It is provably safe, even against quantum computer attacks. In this project you will

- Design, implement, and analyze physical layer security techniques
- Create a hardware demonstrator
- Perform calculations, simulations, and experiments to study the performance
- Write publications and present your research results at international conferences.

To be qualified for this position, you should have

- Excellent university degree in electrical engineering, computer science, communications engineering, mathematics, physics (or similar)
- Experience with RF hardware (spectrum analyzer, network analyzer, etc.) and software defined radios
- Programming experience in Python, MATLAB, or C/C++
- Goal-oriented, independent, and structured work style

The following points are considered a bonus

- FPGA programming experience
- Prior knowledge of wireless communication systems (MIMO-OFDM, LTE, 5G-NR)
- Prior knowledge of information theory

Our offer

- Research on current topics in an inspiring international working environment
- Fully equipped research lab with up-to-date hardware to conduct experiments
- Full-time position (E13 TV-L) with the aim of obtaining a doctoral degree

How to apply

Please send us your application by e-mail (jobs.lti.cit@tum.de with "SEC" in the subject line), including the following documents:

- Curriculum vitae, copies of relevant certificates and diplomas (or transcript of records if not yet finished)
- Short description of your research interests and your motivation for the application
- Master thesis and (if available) up to 3 publications
- Contact information for two references

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General Information

The Technical University of Munich (TUM) is aiming to increase the number of women employees, and applications from women are expressly welcomed. Applicants with disabilities, with essentially the same suitability and qualification, will be preferred. As you apply for a position at TUM, you will provide personal data; please note our data protection information according to Art. 13 Data Protection Basic Regulation (DSGVO) on the collection and processing of personal data in connection with your application, <http://go.tum.de/554159>. By submitting your application, you confirm that you have taken note of the data protection information of the TUM.

Contact

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