

Faculty of Electrical and Computer Engineering

At the **Institute of Communication Technology**, the **Vodafone Chair of Mobile Communications Systems** invites applications for the Cluster of Excellence **Centre for Tactile Internet with Human-in-the-Loop (CeTI)** for a position as

Research Associate (m/f/x)

(subject to personal qualification employees are remunerated according to salary group E 13 TV-L)

starting **as soon as possible**. The position is limited until December 31, 2025 with the option of extension. The period of employment is governed by the Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz-WissZeitVG). The position offers the chance to obtain further academic qualification (e.g. PhD).

The Vodafone Chair for Mobile Communications Systems offers the opportunity to help shape the development of future mobile communication systems in a prosperous and dynamic environment, to gain valuable project experience and to establish and deepen contacts with innovative companies. Further information on the Vodafone Chair can be found at <https://mns.ifn.et.tu-dresden.de>. Further information on CeTI can be found at <https://ceti.one>.

Tasks: You are part of the research team in the Cluster of Excellence CeTI, your tasks include:

- development of methodologies and algorithms to ensure the latency and reliability requirements of wireless communications for transmitting haptic data for tactile internet applications with the Human-in-the-Loop, such as AR/VR, collaborative human-robot interaction, robotic teleoperation, among others,
- system simulation and development of solutions for future wireless networks that ensure a Quality of Experience of the Human-in-the-Loop in tactile internet applications,
- development and evaluation of resilient wireless systems with applications in tactile internet applications. Topics include traffic modeling, spectrum and interference sensing, radio resource allocation, network optimization, and interface diversity. Approaches include machine learning as well as model-based methods,
- collaborate with the interdisciplinary group of researchers of CeTI to generate jointly high-quality scientific contributions and demonstrators to show the possibility of fulfilling the vision of the excellence cluster.

The work is carried out in cooperation with partners from industry and science. The field of activity also includes the supervision of student work related to the research topics. The results of the work are to be published at international conferences and in recognized journals.

Requirements: above-average university degree in the field of computer science, electrical engineering, communications engineering or information systems engineering, physics, mathematics or similar; profound knowledge of wireless communications, communications engineering, and digital signal processing; independent, goal- and solution-oriented approach; integrative and cooperative behavior with very good communication and social skills; confident command of written and spoken English. Mathematical skills, especially in the areas of modelling and simulation; programming experience with Matlab, Python or C++, or knowledge of hardware implementation are advantageous.

Applications from women are particularly welcome. The same applies to people with disabilities.

Please submit your comprehensive application including the usual documents by **November 28, 2022** (stamped arrival date of the university central mail service applies) by mail to: **TU Dresden, Fakultät Elektrotechnik und Informationstechnik, Institut für**



Nachrichtentechnik, Vodafone Stiftungsprofessur für Mobile Nachrichtensysteme, Herr Prof. Gerhard Fettweis, Helmholtzstr. 10, 01069 Dresden, Germany or by sending it as a single pdf-document to jobs@ifn.et.tu-dresden.de (Please note: We are currently not able to receive electronically signed and encrypted data.). Please submit copies only, as your application will not be returned to you. Expenses incurred in attending interviews cannot be reimbursed.

Reference to data protection: Your data protection rights, the purpose for which your data will be processed, as well as further information about data protection is available to you on the website: <https://tu-dresden.de/karriere/datenschutzhinweis>.