Technische Universität Dresden (TUD), as a University of Excellence, is one of the leading and most dynamic research institutions in the country. Founded in 1828, today it is a globally oriented, regionally anchored top university as it focuses on the grand challenges of the 21st century. It develops innovative solutions for the world’s most pressing issues. In research and academic programs, the university unites the natural and engineering sciences with the humanities, social sciences and medicine. This wide range of disciplines is a special feature, facilitating interdisciplinarity and transfer of science to society. As a modern employer, it offers attractive working conditions to all employees in teaching, research, technology and administration. The goal is to promote and develop their individual abilities while empowering everyone to reach their full potential. TUD embodies a university culture that is characterized by cosmopolitanism, mutual appreciation, thriving innovation and active participation. For TUD diversity is an essential feature and a quality criterion of an excellent university. Accordingly, we welcome all applicants who would like to commit themselves, their achievements and productivity to the success of the whole institution.

The Faculty of Electrical and Computer Engineering, Institute of Communication Technology, the Junior Professorship of Haptic Communication Systems, the 6G-life Research-Hub “Digital transformation and sovereignty of future communication networks” offers 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 initially limited until August 14, 2025. 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).

**Tasks:** The goal is to develop novel and lightweight transport layers and protocols for In-Network Computing. One application is to enable distributed robot architecture that allows for a perceived real-time interaction between humans and robots. The tasks include the study, design, implementation, and exploitation of the following:

1. Novel architectures and platforms for In-Network Computing (e.g., Programmable Data Plane, Berkeley Packet Filter, and Express Data Path)
2. Softwarized networking technologies, e.g., Software Defined Networking (SDN) and Network Function Virtualization (NFV)
3. Distributed and adaptive strategies for flexible execution and efficient computing

This area of research requires an interdisciplinary approach. We expect collaboration with experts in other areas, such as control theory, robotics, and information theory. We expect to implement and deploy research outcomes on real testbeds, e.g., the 5G/6G Campus solution.

**Requirements:** You hold a university degree (Diploma/Master) in electrical engineering or computer science. You have a strong background in softwarized networks (NFV/SDN) and solid knowledge of the operating system (especially user and kernel spaces in Linux). You are willing to explore related knowledge domains, e.g., robotics, distributed software systems, and distributed computing, communications of multiple modalities (audio, video, haptic). You possess solid programming skills (C/C++ and Python), a good written and spoken English command, and the ability and willingness to work independently, conceptually, and scientifically. Knowledge of German desirable.

More details about the 6G-life Research-Hub are given under [www.6g-life.de](http://www.6g-life.de)
TUD strives to employ more women in academia and research. We therefore expressly encourage women to apply. The University is a certified family-friendly university and offers a Dual Career Service. We welcome applications from candidates with disabilities. If multiple candidates prove to be equally qualified, those with disabilities or with equivalent status pursuant to the German Social Code IX (SGB IX) will receive priority for employment.

Please submit your comprehensive application including the usual documents by **November 15, 2022** (stamped arrival date of the university central mail service applies) via the TU Dresden SecureMail Portal https://securemail.tu-dresden.de to recruitment.6glife@tu-dresden.de or to: TU Dresden, Fakultät Elektrotechnik und Informationstechnik, Institut für Nachrichtentechnik, Juniorprofessur für Haptische Kommunikationssysteme, Jun.-Prof. Dr.-Ing. Giang T. Nguyen, Helmholtzstr. 10, 01069 Dresden, Germany. Please submit copies only, as your application will not be returned to you. Expenses incurred in attending interviews cannot be reimbursed.

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**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.