

TUD Dresden University of Technology, 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.

At the **Faculty of Electrical and Computer Engineering, Institute of Communication Technology**, the **Deutsche Telekom Chair of 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 **October 1, 2026**. The position is limited until December 31, 2027. 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.

Tasks: The position involves research on TSN and 5G connectivity particularly the integration of TSN-AF into the 5G. The research involves also integration of TSN-5G technology into digital twin of networks. The candidate will contribute to the design, implementation, coding and evaluation of the TSN-AF network function for the 5G-/6G-Core and validate the developed concepts. The research will address novel methods for interacting with TSN components and features like CNC/CUC, DS-TT, NW-TT. A central objective is to enable time synchronization and deterministic transmission of packets through the network to enable PLC based control of machines. The work will further investigate novel architecture and features options of TSN and their theoretical and practical integration into 6G networks as well as required interface definitions for digital network twins. The philosophy of our team is "Research that matters." Therefore, you are expected not only to work on theory but also to program, code and deploy your own research in our testbeds using state-of-the-art software libraries and the results of cooperative research with other team members and project partners. Your work will be beneficial not only to our academic partners but also to many industry members involved in projects with our team. The position also includes supervising student work related to the research topics. The work results will be published at international conferences and in recognized journals.

Requirements:

- university degree (Diploma/Master) in Electrical Engineering, Telecommunications, Information Systems, Computer Science, or similar
- programming skills in C++, Python, or Golang
- knowledge in 5G-Core Architecture, Implementation, TSN-AF Architecture and PMIC/UMIC transfer
- knowledge in communication networks, TSN, and computational network concepts is a plus

We offer:

- the opportunity for engaging and independent work within a flat hierarchy, in an open-minded team and supportive atmosphere
- flexible working hours
- 30 days of vacation per year (based on a 5-day workweek)
- extensive opportunities for professional development and continuing education
- health care and sports programs offered by TUD
- a discounted job ticket (also available as a Deutschlandticket)
- participation in the supplementary pension scheme for employees in the public sector via VBL (Federal and State Government Employees Retirement Fund)

TUD strives to employ more women in academia and research. We therefore expressly encourage women to apply. The university is a family-friendly university. 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.

Application: Please submit your detailed application with the usual documents by **August 17, 2026** (stamped arrival date of the university central mail service or the time stamp on the email server of TUD applies), preferably via the TUD SecureMail Portal <https://securemail.tu-dresden.de> by sending it as a single pdf file to karin.domel@tu-dresden.de or to:

**TU Dresden, Deutsche Telekom Chair of Communication Networks, Karin Domel,
Helmholtzstr. 10, 01069 Dresden.**

Please submit copies only, as your application will not be returned to you. Expenses incurred in attending interviews cannot be reimbursed.

TUD is a founding partner in the DRESDEN-
concept alliance.

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concept



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>.