

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 under the EU project New MOBility solutions for Climate Neutrality in EU Cities 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 to 3 years. 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 (usually PhD).

The aim of this project is to demonstrate that innovative concepts for passenger mobility and freight transport, designed and implemented following participative and user-centric principles are cost-effective and feasible solutions to contribute significantly to the cities' transformation towards climate-neutrality, allowing to speed up the process even to reach SCOPE 2 emissions reduction in 2030. Acting as a Lead City, Dresden with Madrid together will implement 11 pilots comprising 27 very innovative solutions for mobility of people and freight, exploiting the combined potential of electrification, automation and connectivity. In this context, TUD acts as a partner for research and technology organisation, and ComNets provides research in innovative charging infrastructure and green fuel vehicles with advanced infrastructure of connectivity (5G 6G). The project is carried out in collaboration with 28 other partners.

We are seeking a skilled and technically oriented individual to join our team to focus on innovative charging infrastructure, E-mobility solutions, and the development of stand-alone 5G 6G networks. This role will play a crucial part in the project by contributing expertise in power grid flexibility, demand-oriented transport, and E-charging solutions while also leading the integration of cutting-edge 5G/6G networks for enhanced connectivity.

Your **tasks** will be in the areas of:

Stand-Alone 5G/6G Networks

- to drive the development and deployment of stand-alone 5G/6G networks, focusing on providing robust and reliable connectivity for autonomous driving and innovative mobility concepts,
- to collaborate with partners to ensure seamless integration of 5G/6G networks into the overall project framework,
- to collaborate with the research innovation partner to integrate technical solutions with research findings and
- to ensure the seamless connection between 5G 6G connectivity solutions and innovative mobility concepts.

Advanced Connectivity for Dynamic Charging and E-Charging Solutions

- to lead efforts in developing and implementing E-charging solutions, catering to the unique demands of dynamic and demand-oriented transport,
- to explore tuneable/configurable E-car solutions to maximise flexibility and efficiency in E-charging infrastructure
- to design and implement power grid flexibility solutions to support the electrification of demand-oriented transport,
- to develop strategies to optimise power usage and enhance grid adaptability for sustainable mobility solutions.

Requirements:

- a university degree (e.g. master's degree) in Electrical Engineering, Telecommunications, or a related technical field.
- Expertise in the development and deployment of stand-alone 5G/6G networks, with a focus on enhancing connectivity for autonomous driving and mobility applications.
- Interest in designing and implementing innovative charging infrastructure and E-mobility solutions.
- excellent communication skills to effectively convey technical information to diverse stakeholders.
- Ability to work collaboratively in a team environment and contribute to multidisciplinary projects.
- innovative mindset with the ability to integrate emerging technologies into practical applications.
- fluent written and verbal communication skills in English (required) and German (preferred).

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 detailed application with the usual documents by **February 12, 2024** (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, Fakultät Elektrotechnik und Informationstechnik, Institut für Nachrichtentechnik, Deutsche Telekom Professur für Kommunikationsnetze, z. Hd. Frau Karin Domel, 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.

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>.