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 **Junior Professorship in Quantum Communication** offers a project position as

Research Associate / Postdoc (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 November 30, 2024. The period of employment is governed by § 2 (2) Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz – WissZeitVG).

Tasks: We seek applications for a position in Quantum Technologies for the experimental realization of 5G-quantum communication network, in which the quantum technologies are used for reliable ultra-precise synchronization. This is a fundamental means for realizing future 6G communication networks enabling verticals requiring low latency like the Tactile Internet and various industrial scenarios with human and machines interactions. You will have to design and realize in the experimental demonstrator the quantum link-layer protocol for managing the quantum resources used for time synchronization of the network.

Requirements: university degree (Diploma/Master) and, if applicable, PhD degree in electrical or electronic engineering, telecommunications engineering, computer science, physics, mathematics, or equivalent; strong programming skills are highly recommended. Knowledge of quantum mechanics and focus on experimental physics can be a plus. Candidates should be proficient in English and have good oral and written communication skills.

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 under the **job ID "w24-026"** until **February 7, 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 **kseniia.lemesheva@tu-dresden.de** or to: **TU Dresden, Fakultät Elektrotechnik und Informationstechnik, Institut für Nachrichtentechnik, Juniorprofessur für Quanten-Kommunikationssysteme, Herrn Jun.-Prof. Dr. Riccardo Bassoli, 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.