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 Communications Engineering**, the **Junior Professorship for Quantum Communication Networks** offers, subject to the availability of resources, 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, 2023**. The position is limited until September 30, 2026. 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).

**Tasks:** We are inviting applications for a Research Associate position to contribute to the setup and maintenance of quantum computing and communication platforms and the development of specific user interfaces for research and educational purposes. These position offers the unique opportunity for successful candidates to pursue a PhD throughout the duration of the project. We are looking for highly motivated individuals who excel in teamwork and are passionate about advancing the field of quantum technologies.

**Responsibilities:** Quantum Computing Algorithms

- Design and program basic algorithms for quantum computers, primarily for educational sessions.
- Collaborate with educator managers to ensure the algorithms align with educational objectives.
- Continuously update and resolve bugs in the algorithms.

**Requirements:**

- university degree (Diploma/Master) in electrical or electronic engineering, telecommunications engineering, computer science, physics, mathematics, or equivalent.
- strong programming skills are highly recommended.
- proficiency in both German and English with good oral and written communication skills.
- demonstrated ability to work effectively in a team and willingness to actively engage in idea exchange with others.

**Additional Information:**

- PhD opportunity: Successful candidates will have the chance to pursue a PhD throughout the project duration.
- Collaborative Environment: The project fosters a collaborative and innovative environment, encouraging researchers to grow and learn from each other.
- Quantum Technologies: The project offers a unique opportunity to work on cutting-edge quantum computing and communication technologies with potential real-world impact.
- Educational Contribution: Researchers will play a vital role in shaping educational content related to quantum technologies.
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 **September 8, 2023** (stamped arrival date of the university central mail service applies), preferably via the TU Dresden SecureMail Portal [https://securemail.tu-dresden.de](https://securemail.tu-dresden.de) by sending it as a single pdf file to kseniia.lemesheva@mailbox.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.

**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](https://tu-dresden.de/karriere/datenschutzhinweis).