

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 Circuits and Systems**, the **Chair of Measurement and Sensor System Technique** ([www.tu-dresden.de/et/mst/](http://www.tu-dresden.de/et/mst/)) offers a position as

**Research Associate / PhD Student / Postdoc (m/f/x)**  
**Computational Ultrasound Imaging**

(subject to personal qualification employees are remunerated according to salary group E 13 TV-L)

starting **December 1, 2024**. The position is initially limited to two years with the option of extension. 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 / habilitation thesis).

The Ultrasound Imaging Group at MST focusses on the research of new imaging modalities and signal processing concepts in the field of ultrasonics such as *deep learning*, *time reversal* and *super-resolution*. The main target of your research is to drive innovations of adaptive ultrasound imaging for new applications in medical imaging and biomedicine.

**Tasks:** The focus of your work will be the realization of projects in close cooperation with partners from the industry, clinic and research. This will be embedded in the university's excellence clusters and third party-funded projects. Your research includes the realization of an imaging system, hardware and software development of an ultrasound research platform, the characterization of measurement properties, the conduction of experiments as well as scientific and technical (*open source*) publication of the results.

**Requirements:** above-average university degree (Diploma/Master) and, if applicable, PhD degree in electrical or electronic engineering, telecommunications engineering, computer science, physics or related fields; fluent in English; ability to work independently and conceptually in a team; interest in practical and interdisciplinary collaborations with projects partners; knowledge in software development and digital signal processing; former experience in acoustics or Python are beneficial.

**We offer:** cutting-edge equipped labs; an own research topic with project funding; excellent contacts in research and industry; publication at international conferences, being part of an interdisciplinary and emerging team (with over 60 awards and honors within the last 10 years).

For subject-related questions feel free to contact: Mr. David Weik [david.weik@tu-dresden.de](mailto:david.weik@tu-dresden.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 detailed application with the usual documents by **November 8, 2024** (stamped arrival date of the university central mail service or the time stamp on the email server of TUD applies), preferably the TUD SecureMail Portal <https://securemail.tu-dresden.de> by sending it as a single pdf file to [gpr-mst-sekretariat@msx.tu-dresden.de](mailto:gpr-mst-sekretariat@msx.tu-dresden.de) (Please note: We are currently not able to receive electronically signed and encrypted data) or to: **TU Dresden, Fakultät Elektrotechnik und Informationstechnik, Institut für Grundlagen der Elektrotechnik und Elektronik, Professur für Mess- und Sensorsystemtechnik, Herrn Prof. Dr.-Ing. habil. J. Czarske, 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>.