Technische Universität Dresden - Faculty of Environmental Sciences, Department of Geosciences, Institute of Photogrammetry and Remote Sensing, Junior Professorship in Geo-Sensor Systems

Technische Universität Dresden

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.

Research Associate (m/f/x)

At the Faculty of Environmental Sciences, Department of Geosciences, Institute of Photogrammetry and Remote Sensing, the Junior Professorship in Geo-Sensor Systems offers a full-time project position 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 until November 30, 2028. The period of employment is governed by § 2 (2) Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz - WissZeitVG). Balancing family and career is an important issue. The position is generally suitable for candidates seeking part-time employment. Please indicate the request in your application.

City: Dresden; Starting date (earliest): At the earliest possible; Duration: bis zum 30.11.2028; Remuneration: bei Vorliegen der persönlichen Voraussetzungen E 13 TV-L; Reference number: w25-313; Closing date: 15/12/25

Working field

The scope of duties includes independent, methods-oriented research in the field of AI-supported data analysis and acquisition. The focus is on the conception, development, and implementation of Machine Learning procedures for the automated detection and quantification of complex infrastructure elements. This specifically involves the training and validation of neural networks (e.g., for detection and segmentation) using and fusing heterogeneous, large-scale image datasets (such as aerial and street-level images). In this context, you will develop photogrammetric methods for the precise integration of images from different perspectives. Furthermore, the role includes the development of innovative strategies for the creation and preparation of training data, as well as the derivation and analysis of metric information from the acquired data. An essential component is the comprehensive quality assurance and evaluation of the developed

procedures regarding their robustness and scalability. The research results must be prepared for transfer into science and practice through careful documentation and the provision of the source code.

Requirements

— university degree (Master's or equivalent) in the field of Geoinformatics, Geodesy, Computer Science, or a comparable discipline
— experience with the automated processing of image and 3D data (particularly Photogrammetry)
— good knowledge of data analysis algorithms using neural networks (specifically, experience regarding implementation for image processing is desirable)
— good programming skills (Python)

What we offer

An interesting job in a dynamic and social research group.
For further questions, please contact Jun.-Prof. Dr. Anette Eltner (anette.eltner@tu-dresden.de).

Application

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. 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 (including letter of motivation, CV, references, two reference contacts) by December 15, 2025 (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 anette.eltner@tu-dresden.de or to:
TU Dresden, Institute of Photogrammetry and Remote Sensing, Jun.-Prof. Dr. A. Eltner, 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.

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

More information at https://stellenticket.de/199564/TUBS/
Offer visible until 15/12/25