With more than 16,000 students and 3,800 employees, the **Technische Universität Braunschweig** is one of Germany´s leading institutes of technology. It stands for strategic and performance-oriented thinking and acting, relevant research, committed teaching, and the successful transfer of knowledge and technologies to the economy and society. We consistently advocate for family friendliness and equal opportunities.

Our research focuses are mobility, engineering for health, metrology, and city of the future. Strong engineering and natural sciences are our core disciplines. These are closely interconnected with economics, social and educational sciences and humanities.

Our campus is located in the midst of one of the most research-intensive regions in Europe. We work successfully together with over 20 research institutions in our neighborhood as we do with our international partner universities.

Starting from January 2025, the Institute of Geodesy and Photogrammetry is looking for a

Research Associate (m/f/d) in the field of Digital and Additive Construction, in particular on Quality Control

(EG 13 TV-L, 75%)

The position is to be filled on a fixed-term basis for 3 years. The successful applicant will be given the opportunity to pursue a doctorate.

The *Institute of Geodesy and Photogrammetry (IGP)* performs research and education in many different fields of Photogrammetry, Engineering Surveying, Remote Sensing and Geoinformatics. Being anchored in the Faculty of Architecture, Civil Engineering and Environmental Sciences, our focus is on interdisciplinary research, for instance, in digital construction.

The *Collaborative Research Centre TRR277* „Additive Manufacturing in Construction – The opportunity for large impact“ is a DFG-funded Collaborative Research Centre that has set itself the goal of significantly shaping the transformation of the construction industry into a digital and sustainable future. The focus is on using 3D printing technology (additive manufacturing) to develop resource-saving, low-emission, and economical construction methods. Complex research questions on materials, material savings, process engineering, digital process control, modelling, design, and construction are examined holistically by scientists from different engineering disciplines.
The sub-project where IGP is involved addresses various questions in the field of engineering geodesy and photogrammetry, aiming at innovative quality and process control. The IGP is also involved in the newly created "*Digital Construction Site*" (DCS) research infrastructure, which offers ideal conditions for research into innovative technologies.

Your tasks: You will

- Conduct research on "Digital and additive manufacturing" at IGP with the support of TRR277.
- Work in interdisciplinary research teams.
- Publish research results in (inter)national journals and participate in conferences.
- Aim to write a dissertation

Your Qualifications: You have

- A very well-completed scientific master's degree in geodesy or related subjects.
- Sound knowledge in laser scanning, photogrammetry, image processing and machine learning, including deep learning.
- Sound programming skills.
- Willingness to work and actively participate in an interdisciplinary team of scientists.
- Scientific curiosity and the determination to work towards a doctorate in this field.
- Proficiency in written and spoken English. Knowledge of German is an advantage.

We offer

- Work in a dedicated team full of ideas for research and practice at IGP and the TRR277 AMC.
- A broad network and various opportunities for cooperation in research and practice.
- Work on an exciting future-oriented research topic in an inspiring work environment as part of the institute and the university
- A vibrant campus life in an international atmosphere with lots of intercultural offers and international cooperation
- A wide range of training opportunities for a career in research or practice
- Payment under the collective agreement TV-L (a special payment at the end of the year as well as a supplementary benefit in the form of a company pension, comparable to a company pension in the private sector), including 23 days of vacation per year
- Flexible working and part-time options and a family-friendly university culture awarded the "Family-friendly university" audit since 2007
- Special continuing education programs for young scientists, a postdoc program, as well as other offerings from the Central Personnel Development Department and sports activities.

Further notes

We welcome applicants of all nationalities. At the same time, we encourage people with severe disabilities to apply. Applications from severely disabled persons will be given preference if they are equally qualified. Please attach a proof of disability to your application. We are also working on the fulfilment of the Central Equality Plan based on the Lower Saxony Equal Rights Act (*Niedersächsisches Gleichberechtigungsgesetz*—NGG) and strive to reduce under-representation in all areas and positions as defined by the NGG. Therefore, applications from women are particularly welcome in this case.

Personal data will be stored to process the application. By submitting your application, you agree that your data may be stored and processed electronically for application purposes in compliance with data protection law. Further information on data protection can be found in our data protection regulations at https://www.tu-braunschweig.de/datenschutzerklaerung-bewerbungen. Application costs cannot be reimbursed.

Questions and Answers

For more information, please call Prof. Dr.-Ing. Markus Gerke on +49 (0) 531 391-94570.

Deadline for applications is September 30, 2024

Have we aroused your interest? Please send your detailed application, including a letter of motivation addressing the advertised position and tasks *exclusively via email, all attachments collated into one PDF file*, to **m.gerke@tu-braunschweig.de**