



Leibniz  
Universität  
Hannover

The Institut für Erdmessung (IfE)/DFG funded Research Unit (FOR5455) invites applications for the position of a

## **Research Assistant (Doctoral Candidate, m/f/d) on Distribution-free Uncertainty Description for Terrestrial Laser Scanner-based Areal Deformation Analysis (Salary Scale 13 TV-L, 100 %)**

The position starts October 1<sup>st</sup>, 2023 and is limited to 4 years.

### **Responsibilities and duties**

In the DFG funded Research Unit (FOR5455) "Deformation Analysis Based on Terrestrial Laser Scanner Measurements" (TLS-Defo, [www.tlsdefo.de](http://www.tlsdefo.de)) relevant topics in TLS based deformation analysis will be investigated in a consortium of five universities (Uni Bonn, TU Munich, Leibniz University Hannover, KIT Karlsruhe, and TU Vienna).

Project 5 "Distribution-free Uncertainty" will use intervals and sets to derive observation intervals for terrestrial laser scanner (TLS) measurements based on data analysis of terrestrial laser scans. Next, a concept has to be developed to propagate them to TLS point clouds. Subsequently, uncertainty regions of each TLS point can be derived as well as concepts for deformation analysis by intersection of these regions over subsequent epochs.

### **Employment conditions**

To qualify for the position, applicants should hold a completed university science degree (M.Sc.) in geodesy and geoinformatics, robotics with focus on LiDAR analysis, applied mathematics, civil engineering with focus on risk evaluation, statistics or related discipline. Furthermore, the ability for interdisciplinary and independent work as well as a very good command of the English language are required. Sound experience in processing TLS or LiDAR data or experiences in risk and uncertainty evaluation by sets or intervals are expected, as well as a secure handling of MATLAB.

Leibniz University Hannover considers itself a family-friendly university and therefore promotes a balance between work and family responsibilities. Part-time employment can be arranged upon request.

The university aims to promote equality between women and men. For this purpose, the university strives to reduce under-representation in areas where a certain gender is under-represented. Women are under-represented in the salary scale of the advertised position. Therefore, qualified women are encouraged to apply. Moreover, we welcome applications from qualified men. Preference will be given to equally-qualified applicants with disabilities.



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Applications have to include a CV, the full academic record (certificates, transcript of record of B.Sc. and M.Sc. or equivalent in English or German language), a cover letter indicating your motivation and your preferences for this topic to the speaker of the research unit Prof. Dr.-Ing. H. Kuhlmann at [tsdefo@uni-bonn.de](mailto:tsdefo@uni-bonn.de) (a single PDF-file, max. 8 MB). The application deadline is June 4th, 2023.

or alternatively via postal mail to:

**Gottfried Wilhelm Leibniz Universität Hannover**

Institut für Erdmessung

Att. Prof. Dr. Steffen Schön

Schneiderberg 50

30167 Hannover

<http://www.uni-hannover.de/jobs>

For further information, please contact Prof. Dr.-Ing. Steffen Schön (Tel.: 0049 (0)511 762-3397, Email: [schoen@ife.uni-hannover.de](mailto:schoen@ife.uni-hannover.de)).

Information on the collection of personal data according to article 13 GDPR can be found at <https://www.uni-hannover.de/en/datenschutzhinweis-bewerbungen/>.