Technische Universität Berlin

Technische Universität Berlin offers an open position:

Research Assistant - salary grade E13 TV-L Berliner Hochschulen

under the reserve that funds are granted
part-time employment may be possible

Faculty VI - Institute of Landscape Architecture and Environmental Planning / Geoinformation in Environmental Planning
Reference number: VI-67/25 (starting at 01/04/25 / limited until 31/12/2027 / closing date for applications 07/03/25)

Working field:

As part of the Natural Climate Protection Action Programme (ANK), the BMUV has decided to exploit the potential of satellite-based earth observation for holistic environmental monitoring and to promote a service-based infrastructure. This should be suitable for applications in environmental and nature conservation monitoring at various administrative levels (federal, state and local authorities) and also be made accessible to the general public.

The EO4ANK project aims to develop and implement a modular tool platform (ANK toolbox) that enables comprehensive environmental monitoring in the field of natural climate protection based on satellite data. The ANK toolbox contains a range of indicators that are important for monitoring and evaluating measures in ANK as well as for other applications. In addition, it forms an important database for improving the spatially detailed modelling of greenhouse gas emissions from land use, land use change and forest management.

We are looking for highly motivated candidates with above-average qualifications, enthusiasm for and experience in applied research. The Geoinformation Lab for Environmental Planning at the Technical University of Berlin is therefore offering a position as a research assistant (m,f,d) in the field of remote sensing. The aim of this position within the research project EO4ANK is:

- Development of methods to derive forest structure parameters (e.g. stand density, height distribution, canopy closure) from remote sensing data (especially LiDAR and Sentinel-1/-2).
- Development of models to quantify carbon dynamics in forests, including carbon losses due to disturbance events and carbon sequestration through regeneration processes.
- Utilization of LiDAR data and other remote sensing data to accurately determine forest structure and carbon balance over time.
- Application of the developed models to analyze carbon dynamics in forests in Germany on a large scale
- Investigation of the effects of disturbance events (e.g. storms, insect infestation) on forest structure and the carbon balance, as well as the analysis of regeneration processes.

Requirements:

- Successfully completed university degree (Master, Diplom or equivalent) in relevant discipline, preferably Environmental Sciences, Geo-Ecology, Physical Geography, or a related field with a strong link to remote sensing
- Strong experiences in analyzing remote sensing data, especially Lidar or Sentinel-1/-2 data
- Good programming (R, Python) and machine learning skills
- Good knowledge of German and/or English required; willingness to acquire the respective missing language skills.

Desirable:

- Knowledge of carbon balancing from remote sensing data and knowledge of Central European forest vegetation is desirable
- Enthusiasm for the prospect of working on an applied project and in a collaborative, international team

Please send your application **with the reference number** and the usual documents (a cover letter including description of research interests and relevant experiences, a current CV, academic transcripts, a list of publications (if available) and contact details of two referees) **only by email** (single pdf file, max. 5 MB) to **sekretariat@geoinformation.tu-berlin.de**.

By submitting your application via email you consent to having your data electronically processed and saved. Please note that we do not provide a guarantee for the protection of your personal data when submitted as unprotected file. Please find our data protection notice acc. DSGVO (General Data Protection Regulation) at the TU staff department homepage: https://www.abt2-t.tu-berlin.de/menue/themen_a_z/datenschutzerklaerung/.

To ensure equal opportunities between women and men, applications by women with the required qualifications are explicitly desired. Qualified individuals with disabilities will be favored. The TU Berlin values the diversity of its members and is committed to the goals of equal opportunities. Applications from people of all nationalities and with a migration background are very welcome.

Technische Universität Berlin - Die Präsidentin - Fakultät VI, Institut für Landschaftsarchitektur und Umweltplanung, FG Geoinformation in der Umweltplanung, Prof. Dr. Birgit Kleinschmit, Sekr. EB 5, Straße des 17. Juni 145, 10623 Berlin

The vacancy is also available on the internet at
https://www.personalabteilung.tu-berlin.de/menue/jobs/