Technische Universität Dresden - Faculty of Environmental Sciences, Institute of Soil Science and Site Ecology, Chair of Forest Sites and Hydrology

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. The Faculty of Environmental Sciences is looking for three Research Associates to work together in a larger project consortium with six Chairs from TUD. The aim of the joint project „Forests in transition: The future of European beech under drought stress“ (funded by the Eva Mayr-Stihl foundation) is to quantify the influence of stem density reduction (i.e., varying degrees and forms of forest thinning) on the water supply and associated biomass development and vitality, as well as carbon storage in beech stands across Saxony, Germany. This will be achieved through a novel combination of different cross-scale monitoring approaches, which will enable an improved understanding of the causes and consequences of varying water availability to individual beech trees, as well as upscaling to larger areas and model-based predictions for the future.

Research Associate (m/f/x) in Forest Hydrology

In this project, the Chair of Forest Sites and Hydrology at the Institute of Soil Science and Site Ecology offers, subject to the availability of resources, a project position as Research Associate (m/f/x) in Forest Hydrology (subject to personal qualification employees are remunerated according to salary group E 13 TV-L) starting April 1, 2026. The position is limited until December 31, 2029 and entails 65% of the full-time weekly hours. The period of employment is governed by § 2 (2) Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz - WissZeitVG). The subproject “Water movement along the soil-plant-atmosphere continuum” at the Chair of Forest Sites and Hydrology will determine the influence of stem density reduction on soil water availability, the origin and residence times of water in the soil-tree system at different European beech stands across Saxony, Germany.

City: Dresden; Starting date (earliest): 01/04/26; Duration: limited until December 31, 2029; Remuneration: subject to personal qualification employees are remunerated according to salary group E 13 TV-L; Reference number: w25-361; Closing date: 16/02/26

Working field

— install throughfall collectors on beech forest sites in Saxony, Germany
— evaluate data on soil water balance and quantify soil water flows and dynamics
— install a water isotopic monitoring platform
— conduct a water isotope-based characterization of soil water flow paths and tree water uptake strategies under varying site conditions (e.g., exposition, thinning)
— determine the origin of water sources in trees, estimate water residence times and water availability
— setup an isotope-based ecohydrological modeling framework for water uptake strategies by European beech
You will be able to further develop your own scientific profile, e. g. through courses offered by TUD's graduate academy; as well as support BSc/MSc students on a project-related basis under the professional responsibility of the chairholder.

Requirements

— university degree in hydrosciences, (eco)hydro(geo)logy, forestry, geoscience (or related fields), preferably with field and/or lab experience
— proven experience in working in diverse teams, proven scientific publishing skills (see required documents)
— interest or experience in (eco)hydrological modelling (R, Phyton, Matlab)
— a German driver's license (class B) is mandatory
— basic knowledge of German is desirable

What we offer

— an inspiring, international and interdisciplinary working environment with state-of-the-art (soil) hydrological and isotopic analytical tools
— attractive working conditions and opportunities for further professional development at TUD
— flexible working hours and the possibility to combine family and career

Application

For questions, please get in touch with Prof. Dr. Natalie Orlowski (natalie.orlowski@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. 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 (incl. cover letter, CV, written example of an English publication e.g., BSc. or MSc. thesis or first publication, certificates, diplomas, and the names and contact details of two references) by February 16, 2026 (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 birgit.ziegelmayer@tu-dresden.de or to:
TU Dresden, Chair of Forest Sites and Hydrology, Prof. Dr. Natalie Orlowski, 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/200373/TUBS/
Offer visible until 16/02/26