

University of Stuttgart • IWS/VEGAS Pfaffenwaldring 61 • 70569 Stuttgart

Job Advert - PhD Position

Institute for Modelling Hydraulic and Environmental Systems (IWS)

VEGAS - Research Facility for Subsurface Remediation

Directors

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PhD Position in Environmental Science - PFAS remediation (3 years)

The research facility for subsurface remediation (<u>VEGAS</u>) at the University of Stuttgart is looking for a highly motivated PhD candidate within a multidisciplinary research project focused on various PFAS remediation technologies.

About the Project

Per- and polyfluorinated substances (PFAS) are a large group of synthetic compounds with high persistence in the environment. Among other factors, the length of the perfluorinated carbon chain determines their relatively strong retardation. A key mechanism contributing to PFAS retardation is the adsorption to air-water-interfaces in the unsaturated zone.

The project aims to improve our understanding of PFAS transport in the unsaturated zone –particularly in the transition zone close to the groundwater table – by conducting large scale laboratory experiments and transferring the gained knowledge to a contaminated pilot site. This enhanced process understanding is expected to form the basis for a novel remediation approach, which will be tested at a pilot site in the Rhine Valley. These findings will lead into a quantitative mathematical model used to support the design of the remediation system.

Your Responsibilities

- Conduct large-scale laboratory experiments on PFAS migration in unsaturated soils.
- Analyze sorption and transport processes using experiments and mathematical models.
- Apply experimental findings at a contaminated pilot site.
- Collaborate with national and international partners.
- Present results at conferences and publish in peer-reviewed journals.







Your Qualifications

- M.Sc. degree in environmental engineering, environmental science/ chemistry, geohydrology, or a related field.
- Strong interest in PFAS transport processes in the subsurface and related remediation strategies.
- Enthusiasm for experimental work in both laboratory and field (pilot site) settings.
- Previous experience with laboratory or field methods is an advantage.
- Knowledge of numerical modelling and/or aqueous geochemistry is advantageous.
- Proficient English (written and speaking)
- · German driving license class B.
- Very good German language skills are advantageous.
- Team-oriented, independent, and motivated.

We offer

- A 3-year funded PhD position (employment conditions of the state of Baden-Württemberg (Tarifvertrag für den Öffentlichen Dienst der Länder), 75 % position, TV-L 13; details: https://oeffentlicher-dienst.info/tv-l/
- Expected start date: 1. November 2025 or earlier
- Supervision in an interdisciplinary and supportive team
- Access to state-of-the-art laboratory infrastructure
- Opportunity to join a structured doctoral program
- Workplace: Pfaffenwaldring 61, 70569 Stuttgart

About us

VEGAS is an institution of the University of Stuttgart. We conduct innovative research related to the fate and transport of contaminants in the subsurface and develop remediation technologies. Our research is experiment-based in the areas of groundwater flow, transport- and reaction- processes in porous media on various scales from small-scale lab experiments over large scale experiments to pilot sites.

The University of Stuttgart represents outstanding, world-renowned research and first-class teaching in one of Europe's most dynamic industrial region with almost 20.000 students and over 5.000 employees. Our Welcome Center helps international scientists get started in Stuttgart. Stuttgart itself is a vibrant city known for its strong economy and rich cultural heritage and is the sixth largest city of Germany and forms a hub in the South-West. The University is located in the south of Stuttgart and can easily be reached by public transport.





Women who apply will be given preferential consideration in areas in which they are underrepresented, provided they have the same aptitude, qualifications and professional performance. Severely disabled applicants with equal qualifications will be given priority. Recruitment is carried out by the central administration of the University of Stuttgart

Application

If you are interested in this versatile PhD-opportunity, please apply per email with the following documents until 17th August 2025:

- Motivation letter (max 1 page).
- A brief description of a potential PhD thesis project related to the position (1 page).
- CV with two references with their contact information listed.
- Certificates / transcripts.
- An electronic version of a research output (MSc diploma thesis, research report, proceedings paper or other scientific publication).

Please send your application in pdf format as one file to: jobs.vegas@iws.uni-stuttgart.de. Any documents sent after the application deadline cannot be considered. Questions regarding the application can be addressed by email

Information in accordance with Article 13 DS-GVO on the processing of applicant data can be found at https://careers.uni-stuttgart.de/content/privacy-policy/?locale=en_US

