



A position is available at the Institute of Geotechnics, Chair of Soil Mechanics and Foundation Engineering for a

**Research Assistant – reference number 213-E/2021**

to be filled at the earliest possible time.

**Pay grade:** E13 TV-L  
**Hours:** full-time (can also be carried out as a part-time position)  
**Contract type:** 2 years

Join our team of experts from universities, research centres and companies to participate in numerical simulations of coupled thermal, hydraulic and mechanical processes in the field of repository research. You will develop and use methods for evaluating geotechnical barriers with regard to the construction of their safety functions and the maintenance of their integrity over long periods of time. To do this, you will use data from large-scale tests in underground laboratories.

**Job description:**

You use complex physical process models to perform numerical simulations of the coupled deformation, flow and transport processes in geotechnical barriers and host rocks using the scientific open-source simulation software OpenGeoSys. A special focus is on the coupling of multiphase flows to the deformation and swelling behaviour of clay-based materials. The application background of your research is the description of geotechnical processes in and around deep geological repositories for the disposal of nuclear waste. Your work is integrated into various collaborative projects with national and international partners. You are therefore expected to coordinate your work with the project partners. You will present your results at international conferences and publish them in relevant international journals.

**What you can expect from us:**

- A position in an active and supportive research group at a family-friendly university with flexible working hours
- Salary in accordance with the collective labour agreement for civil servants of the German states
- Support from experienced colleagues for lab work, scientific publications and participation in conferences
- Possibility to take part in the University's career development programmes

**What we expect from you:**

- You have a PhD in Geophysics, Geotechnics, Geosciences, Civil Engineering, Mechanical Engineering, Applied or Theoretical Physics, Computer Science or Applied Mathematics
- You have knowledge in continuum mechanics as well as in numerical methods (especially the finite element method)
- You have a strong publication record in recognized international journals
- Proven programming skills (preferably in C++) round off your professional profile
- You work scientifically-methodically, problem-solution-oriented and are characterized by a high degree of commitment and personal responsibility
- You speak and write English fluently. German skills are a major advantage
- You are willing to present project results at national and international conferences
- You enjoy communicating with colleagues from various disciplines

**For further information please contact Herr Univ.-Prof. Dr. Nagel ([thomas.nagel@ifgt.tu-freiberg.de](mailto:thomas.nagel@ifgt.tu-freiberg.de))**

The applicant must meet the hiring requirements for fixed-term employment contracts according to the WissZeitVG. Applicants with disabilities will receive preferential consideration, provided they possess equal qualifications. For consideration, we ask you to submit proof of your disabled status together with your application documents. TU Bergakademie is committed to increasing the number of women in teaching and research positions, hence qualified female candidates are especially encouraged to apply.

Written applications, including a CV, motivation letter and copies of all relevant qualifications documents (certificates, diplomas), should be submitted before **30 October 2021** stating **reference number (213-E/2021)** to the following address:

**TU Bergakademie Freiberg, Dezernat für Personalangelegenheiten, 09596 Freiberg or [bewerbungen@tu-freiberg.de](mailto:bewerbungen@tu-freiberg.de)**

Your application documents will not be returned, please only submit copies. Candidates will not be compensated for any costs incurred for attending interviews. TU Bergakademie Freiberg is always looking for scientific personnel from various disciplines. Further information can be found at <http://tu-freiberg.de/wirtschaft/karriere/stellenausschreibungen>