



The Chair of Soil Mechanics, Foundation Engineering and Environmental Geotechnics at the Faculty of Civil and environmental engineering is looking for a

Research Associate (m,f,x) for Soil Mechanics, until 31.03.2028 (End of Project), 39,83 hours per week, TVL E13

The Chair of Soil Mechanics, Foundation Engineering and Environmental Geotechnics deals with all questions of geotechnics in research and teaching and is equipped with a comprehensive laboratory and various testing devices. With over 40 employees and doctoral students, the chair works on many research projects from a wide range of sponsors and contributes numerous courses to various degree programs. The projects are related to experimental characterization of soil materials, development of constitutive models and to numerical modelling of complex boundary value problems.

Specific research topic: Development and validation of contact models for fine-grained soils using the Discrete Element Method (DEM), with focus on micromechanical behavior simulation.

Your tasks:

- Evaluate the state of the art of contact modeling for fine-grained soils in the DEM
- Program the most promising approaches and implement them in an existing DEM environment
- Solve different boundary value problems with the DEM using the new contact formulations and evaluate the performance
- Improve the approaches
- Prepare publications

extent:	full-time
duration:	temporary
beginning:	as soon as possible
application deadline:	27.04.2025

The Ruhr-Universität Bochum is one of Germany's leading research universities, addressing the whole range of academic disciplines. A highly dynamic setting enables researchers and students to work across the traditional boundaries of academic subjects and faculties. To create knowledge networks within and beyond the university is RUB's declared aim.

The Ruhr-Universität Bochum stands for diversity and equal opportunities. For this reason, we favour a working environment composed of heterogeneous teams, and seek to promote the careers of individuals who are underrepresented in our respective professional areas. The Ruhr-Universität Bochum expressly requests job applications from women. In areas in which they are underrepresented they will be given preference in the case of equivalent qualifications with male candidates. Applications from individuals with disabilities are most welcome.

Your profile:

- ☒ Master's in civil engineering (Geotechnics), Physics, or Computational Methods
- ☒ Strong programming skills
- ☒ Good English proficiency
- ☒ Experience in numerical modelling
- ☒ Experience in DEM simulation and in soil micromechanics (preferred)
- ☒ Team-oriented with strong analytical skills
- ☒ Highly motivated with enthusiasm and passion for research

Our offerings:

- Integration into a group of motivated scientists
- Guidance from an experienced postdoc
- Opportunity to work on a doctorate
- Collaboration in an internationally visible working group (Emmy Noether research group)

Additional information:

At the request of the applicant (m,f,x), the staff council may be involved in selection interviews. <https://www.wpr.ruhr-uni-bochum.de/>

If the position is funded by third-party funds the employee has no teaching obligation.

German language courses are offered by the University Language Center (ZFA) in the field of German as a Foreign Language (DaF). <https://www.daf.ruhr-uni-bochum.de/sbgk/index.html.en>

You can find information about TVL at: <https://oeffentlicher-dienst.info/>



Contact details for your application:

Mohammad Salimi, mohammad.salimi@rub.de, +49234 32 17596

Travel expenses for interviews cannot be refunded.

For information on the collection of personal data in the application process see: <https://www.ruhr-uni-bochum.de/en/information-collection-personal-data-application-process>.

We are looking forward to receiving your application with the specification ANR: 4414 until 27.04.2025, send by e-mail to the following address: Mohammad.Salimi@rub.de

Please get in touch with the contact person named above if you would like to use an alternative application channel.

RUHR-UNIVERSITÄT BOCHUM
44801 Bochum
Universitätsstraße 150

<https://uni.ruhr-uni-bochum.de/de/stellenangebote>