



The Chair of Mechanics of Adaptive Systems at the Faculty of Civil and environmental engineering is looking for a

## Research Staff (m/f/x) within the Collaborative Research Center SFB-1683 for the Development of Inverse Identification Methods for Foundation Characterization (39,83 hours/week, TV-L E13) until 31.12.2026

The Research Group Mechanics of Adaptive Systems specializes in structural integrity assessment and damage detection, combining non-destructive testing methods with numerical simulation approaches.

We are seeking a highly motivated research assistant to contribute to a subproject within the Collaborative Research Center CRC 1683, titled "Methods of interaction for the modular reuse of existing load-bearing structures". The research focuses on developing inverse identification methods to characterize foundations for reuse. Specifically, wave propagation techniques will be applied to detect and localize potential damage within foundation plates. The start of the employment is as soon as possible and the position offers opportunity to pursue a doctorate.

### Your tasks:

- Conduct research within the interdisciplinary research project CRC 1683
- Develop inverse identification methods for foundation characterization using wave propagation
- Perform experimental validation of the developed methods
- Manage and analyze research data
- Publish findings in scientific journals and reports

<b>extent:</b>	full-time
<b>duration:</b>	temporary
<b>beginning:</b>	as soon as possible
<b>application deadline:</b>	28.04.2025

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

## Your profile:

- Master's degree or diploma in Computational Engineering, Applied Mechanics, Civil Engineering, Mechanical Engineering or related engineering/mathematical discipline
- Extensive knowledge of numerical simulation methods, such as finite element methods or similar techniques (experience in wave propagation simulation is advantageous)
- Good knowledge of optimization and identification methods
- Strong background in scientific programming (Python, Matlab, C++ etc.)
- Experience in experimental work, data acquisition and signal processing is advantageous
- Fluent in written and spoken English (good knowledge of German language is advantageous)
- High level of commitment, motivation, independence and ability to work in a team

## Our offerings:

- Challenging and varied tasks with a high degree of personal responsibility
- team-oriented collaboration in a committed, international and appreciative team
- a friendly and cooperative environment
- a dynamic environment
- Options for location-flexible work

## 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:

Frau Prof. Dr.-Ing. Tamara Nestorović, Phone: +49234 32 25884

Travel expenses for interviews cannot be refunded.

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.

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: 4464 until 28.04.2025**, send by e-mail to the following address: [mas@rub.de](mailto:mas@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**

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