Technische Universität Braunschweig - Leichtweiß-Institute for Hydraulic Engineering

With around 16,000 students and 3,800 employees, the Technische Universität Braunschweig is one of Germany´s leading institutes of technology. It stands for strategic and performance-oriented thinking and acting, relevant research, committed teaching, and the successful transfer of knowledge and technologies to the economy and society. We consistently advocate for family friendliness and equal opportunities. Our research focuses are mobility, engineering for health, metrology, and city of the future. Strong engineering and natural sciences are our core disciplines. These are closely interconnected with economics, social and educational sciences and humanities. Our campus is located in the midst of one of the most research-intensive regions in Europe. We work successfully together with over 20 research institutions in our neighborhood as we do with our international partner universities. The Leichtweiß-Institute for Hydraulic Engineering is looking for a

Postdoc (m/f/d) in the field of structural engineering or fluid-structure-interaction

(EG 14 TV-L, full-time, temporary, four years)

City: Braunschweig; Starting Date: At the earliest possible; Duration: four years;
Renumeration: EG 14 TV-L; Closing date: 28/02/25

Working field

In particular, the following tasks will be performed at the Leichtweiß-Institute for Hydraulic Engineering and Water Resources within the framework of the project:

- Development and Evaluation of Scaling Laws: Formulate and validate novel scaling laws to investigate Fluid-Structure Interaction (FSI) leading to structural collapse.
- Reduced Scale Structural Modelling: Design and construct representative building components and structures for use in structural and hydrodynamic testing.
- Physical Model Testing: Plan, execute, and analyze large-scale physical experiments on structural collapse using state-of-the-art facilities in Braunschweig and Hannover, Germany.
- Numerical Simulations: Perform advanced numerical modeling to study the collapse mechanisms of building components and structures.
- Communication and Dissemination: Actively participate in project communication and dissemination activities, promoting the research findings to the wider scientific and professional communities.
- Supervision: Collaborate closely with and provide mentorship to our PhD students involved in the project.

You will join a vibrant and expanding research group with world-class experimental facilities, including the largest, and versatile wave-current flume world-wide. In particular, you will be part of the Marine Geohazards research group within the Division of Hydromechanics, Coastal and Ocean Engineering at the Leichtweiß-Institute of Hydraulic

Engineering.

Requirements

- Educational Background: A doctorate (PhD) in civil or structural engineering.
- Technical Skills: Experience with programming for data processing and numerical modeling is advantageous (e.g., proficiency in Python, MATLAB, or C#).
- Language Proficiency: Strong command of English, both written and spoken, is essential. Knowledge of German is beneficial but not mandatory.
- Personal Attributes: You are adaptable, capable of working effectively under pressure, and excel in a collaborative team environment.

What We Offer

- Pay in accordance with the collective agreement TV-L, up to pay grade E14 (a special payment at the end of the year as well as a supplementary benefit in the form of a company pension, comparable to a company pension in the private sector) including 30 days' vacation per year
- Flexible working and a family-friendly university culture, awarded the "Family-friendly university" audit since 2007
- Great working environment with innovative facilities at one of the most renowned universities in Germany
- Working in an international division and participation in international networks
- Presenting research results in national and international conferences
- A special payment at the end of the year as well as a supplementary benefit in the form of a company pension, comparable to a company pension in the private sector
- Work on exciting future-oriented research topics in an inspiring work environment as part of the university community
- A vibrant campus life in an international atmosphere with lots of intercultural offers and international cooperation
- Special continuing education programs for young scientists, a postdoc program, as well as other offerings from the Central Personnel Development Department and sports activities.

Application
We welcome applicants of all nationalities. At the same time, we encourage people with severe disabilities to apply. Applications from severely disabled persons will be given preference if they are equally qualified. Please attach a form of evidence of your handicap to your application. We are also working on the fulfilment of the Central Equality Plan based on the Lower Saxony Equal Rights Act (Niedersächsisches Gleichberechtigungsgesetz—NGG) and strive to reduce under-representation in all areas and positions as defined by the NGG. Therefore, applications from woman are particularly welcome in this case.

The personal data will be stored for the purpose of processing the application. By submitting your application, you agree that your data may be stored and processed electronically for application purposes in compliance with the provisions of data protection law. Further information on data protection can be found in our data protection regulations at www.tu-braunschweig.de/datenschutzerklaerung-bewerbungen . Application costs cannot be reimbursed.

Questions and Answers
For more information, please call Prof. Nils Goseberg (**n.goseberg@tu-braunschweig.de**) on +49 (0) 531 391-3930 or e-mail Dr.-Ing. Clemens Krautwald (**c.krautwald@tu-braunschweig.de**).

Deadline for applications is **28.02.2025**

Are you interested? Please send your application preferably via email to **hyku@tu-braunschweig.de**

More information at https://stellenticket.de/191697/
Offer visible until 28/02/25