



With around 17,000 students and 3,800 employees, Technische Universität Braunschweig is the largest Institute of Technology in northern Germany. We are known for our strategic and performance-oriented thinking and acting, top-level research, highly committed lecturers and a successful transfer of knowledge and technologies into industry and society. We are dedicated to creating a family-friendly environment and advocate for equal opportunities.

Our core research areas are Mobility, Engineering for Health, Metrology, and the City of the Future. A strong focus is placed on engineering and the natural sciences, with a close link of our core disciplines to the economics, social and educational sciences as well as the humanities.

Our campus is located in the middle of one of Europe's research hotspots, where we have established a successful working relationship—both with the more than 20 research facilities in our neighbourhood and our international partner universities.

Starting from the earliest possible date, the **Institute of Internal Combustion Engines and Fuel Cells (ivb)** is looking for a

Research Associate (m/f/d) for the topic **Active Manipulation of Charge Motion by Fluidic Vortex Generators**

(full-time - 2 years fixed-term - Doctorate Opportunity)

The position is to be filled on a fixed-term basis for a period of 2 years. The successful applicant will be given the opportunity to pursue a doctorate.

With few exceptions, modern internal combustion engines operate by generating a targeted motion of the cylinder charge to support mixture formation and/or combustion. In a joint research project funded by the German Research Foundation (DFG), the Institute of Fluid Mechanics (ISM) and the Institute of Internal Combustion Engines and Fuel Cells (ivb) aim to investigate the extent to which the efficiency of internal combustion engines can be increased through active charge motion using fluidic vortex generators. At the ivb, investigations on secondary air injection will be conducted on a flow test bench and a towed engine dynamometer with a moving piston. Therefore, we are currently seeking a team member to join our team.

Make a Difference:

- You will carry out research in the area of internal combustion engines.
- You will publish research findings and participate in national and international conferences.
- You will be involved in teaching at the University (preparation and implementation of courses as well as supervision of students' work).

Your Qualifications:

- You have a degree (Master's or equivalent) in the field of automotive engineering, engineering, or a related field of studies.
- You have very good knowledge of the German and English language.
- You have experience in fluid mechanics, internal combustion engines, work at engine test benches, and the use of CAD software.
- You work independently, solution-focused, and structured.
- You are flexible, can perform under pressure and work well in a team.
- You are aiming for a doctorate.

Our Benefits:

- Pay in accordance with the collective agreement TV-L, pay grade E 13, depending on the assignment of tasks and fulfilment of personal requirements.
- 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.
- Interesting and diverse tasks in a pleasant working atmosphere with a friendly and motivated team.
- A workplace that is basically suitable for part-time work, although the position is to be filled full-time, as well as flexible working and part-time options and a family-friendly university culture, awarded the "Family-friendly university" audit since 2007.
- A wide range of continuing education and company health care programmes as well as a vibrant campus life in an international atmosphere.

What's more to know

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 women 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 <https://www.tu-braunschweig.de/datenschutzerklaerung-bewerbungen> . Application costs cannot be reimbursed.

Questions and Answers

For more information, please call Erich Wenz on +49 (0) 531 391-66933.

Closing date: 31.08.2023

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

or via mail to

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