

Global thinking,  
interdisciplinary research:  
the spirit of Leibniz!



Nestled in a modern city surrounded by nature and with an exceptional standard of living, Leibniz University Hannover offers excellent working conditions in a vibrant scientific community.

The Institute of Turbomachinery and Fluid Dynamics is one of the most modern turbomachinery institutes in Germany. We - a motivated team of employees - use an excellently equipped test field and advanced software to solve current research challenges.

**The Institute of Turbomachinery and Fluid-Dynamics (TFD) welcomes applications for the following position starting at the earliest possible date:**

## Academic Staff (m/f/d) with focus on "fuel cell powered jet engines" (salary scale 13 TV-L, 100%)

The position is initially limited to 30 months. The scope of the position corresponds to 100 % of the regular weekly working hours. The project serves to achieve a doctoral degree.

### Your role

You are developing a fuel cell aircraft engine for the next generation of climate-friendly aeroplanes in an interdisciplinary team.

One concept currently being pursued to achieve the Paris climate protection targets by 2050 is to equip short and medium-range aircraft with fuel cells that run on hydrogen. In order to supply the fuel cells with a sufficient amount of oxygen from the atmosphere during cruising flight, they must be supplied with air via modern turbomachinery.

The aim of your work at the institute is the aerothermodynamic design and optimisation of turbomachinery for the air supply of flying fuel cells. Both the aerostage and the overall system are analysed from a fluid mechanical, thermodynamic and structural mechanical point of view. As part of your work, you will apply the latest methods of computational fluid dynamics (CFD) and design methods.

## Who are we looking for?

The successful candidate must hold a university science degree with a major in mechanical engineering or a comparable course of study with a focus on fluid mechanics, thermal turbomachinery, aircraft propulsion or comparable.

Desired in addition are:

- Very good to excellent grades in your studies
- Detailed knowledge of aerothermodynamics of turbomachinery
- Knowledge in the application of CFD methods (preferably ANSYS CFX)
- Knowledge of CAD applications
- Very good knowledge of German and English
- Willingness and ability to contribute to a team
- Independent and careful way of working
- Pleasure in scientific work

Equal opportunities and diversity are core values at Leibniz University Hannover. Our goal is to tap into individual potential and open up possibilities. We therefore welcome applications from anyone interested in the position, irrespective of gender, nationality, ethnic origin, religion or ideology, disability, age, sexual orientation and identity.

We strive towards a balanced and diverse workforce and a reduction in under-representation in accordance with the Lower Saxony Equal Rights Act (*Niedersächsisches Gleichberechtigungsgesetz – NGG*). We therefore particularly encourage applications for the above-mentioned position from women. Preference will be given to equally-qualified candidates with disabilities.

## Why join us?

With more than 5000 employees, Leibniz University Hannover is one of the largest and most attractive employers in the Hannover region. We offer a vibrant interdisciplinary and international working environment, and promote personal and professional [development](#) ranging from subject-related skills to leadership and languages.

As a family-friendly university, working hours can be organised according to various flexible models. Part-time employment as well as remote work (mobile work, work from home) can therefore be arranged upon request. We support employees with [balancing work and family life](#), through services such as back-up childcare, childcare during school holidays, and parent-child offices, as well as providing individual advice regarding family responsibilities and caring for dependants.

To promote health and well-being among employees, we offer an extensive [sports programme](#) with over 100 different sports, as well as a fitness centre with a sauna and climbing space. [Health management](#) measures, such as courses on stress management, good nutrition and relaxation, aim to ensure a healthy workplace.

At our institute, you will be part of a interdisciplinary and motivated team. We support each other in our tasks and also enjoy doing leisure activities together. Participation in international conferences and symposia is a highlight.

## Additional information

For further information, please contact Philipp Nachtigal (tel.: +49 (0)511 762-2755,  
email: [nachtigal@tfd.uni-hannover.de](mailto:nachtigal@tfd.uni-hannover.de)).

Please submit your application and supporting documents by October 16, 2024 electronically to  
email: [nachtigal@tfd.uni-hannover.de](mailto:nachtigal@tfd.uni-hannover.de)

or alternatively by post to:

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Institut für Turbomaschinen und Fluid Dynamik (TFD)  
Gebäude 8141, dritte Etage  
An der Universität 1, 30823 Garbsen

<http://www.uni-hannover.de/en/jobs>

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<https://www.uni-hannover.de/en/datenschutzhinweis-bewerbungen/>