Technische Universität Berlin

Research assistant - salary grade E 13 TV-L Berliner Hochschulen - 1st qualification phase (for doctorate)

part-time employment may be possible

Faculty V - Mechanical Engineering and Transport Systems, Faculty V - Institute of Fluid Dynamics and Technical Acoustics / Experimental Fluid Dynamics
Reference number: V-318/25 (starting at the earliest possible / for max 5 years / closing date for applications 22/08/25)

Your responsibility:

Research in this department addresses questions related to the combustion of various gaseous fuels (e.g., hydrogen, synthesis gases, biogases, natural gas) in combustion chambers, particularly for gas turbine applications. In addition to gaining fundamental physical insights, this research focus aims to enhance the sustainability of combustion processes through innovative methods. The department is seeking a research associate for the energy laboratory with the following responsibilities:

- Independent execution of research projects
- Planning and development of experiments related to fluid mechanics and thermofluid dynamics
- Conducting and supervising teaching activities in the field of fluid mechanics and combustion technology
- Organization, maintenance, and further development of test facilities, measurement technology, and data analysis
- Writing scientific publications in the field of experimental fluid mechanics and combustion

Your profile:

- successfully completed a university degree (Master, Diplom or equivalent) in Physical Engineering Sciences or a comparable program
- Excellent knowledge and practical experience with swirl and jet flames
- Active and passive control of turbulent (reactive) swirling flows
- Statistical methods of flow analysis, such as POD, SPOD, phase averaging, and tomographic reconstruction methods
- Experience in using laser-optical flow measurement techniques (PIV, PDA, LDA, LIF, TDLAS)
- The ability to teach in German and/or English is required; willingness to acquire any missing language skills is expected
- Experience in active and passive flow control
- Experience with experiments in the department's energy laboratory preferred
- Strong team skills desirable
- Experience in acquiring third-party funded projects preferred
- Knowledge of MATLAB and SolidWorks desirable
- Knowledge of LabVIEW and SIMULINK desirable
- Business-fluent German and English language skills are a plus

How to apply:

Meaningful applications including CV and diploma/degree certificate (current grade summary, if applicable) can be submitted **bundled by email to to Prof. Dr. Paschereit via office@hfi.tu-berlin.de**.

By submitting your application via email you consent to having your data electronically processed and saved. Please note that we do not provide a guaranty for the protection of your personal data when submitted as unprotected file. Please find our data protection notice acc. DSGVO (General Data Protection Regulation) at the TU staff department homepage: https://www.abt2-t.tu-berlin.de/menue/themen_a_z/datenschutzerklaerung/ .

To ensure equal opportunities between women and men, applications by women with the required qualifications are explicitly desired. Qualified individuals with disabilities will be favored. The TU Berlin values the diversity of its members and is committed to the goals of equal opportunities. Applications from people of all nationalities and with a migration background are very welcome.

The vacancy is also available on the internet at:
https://www.jobs.tu-berlin.de

Zertifikat seit 2008
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