Dresden University of Technology

TUD Dresden University of Technology, as a University of Excellence, is one of the leading and most dynamic research institutions in the country. Founded in 1828, today it is a globally oriented, regionally anchored top university as it focuses on the grand challenges of the 21st century. It develops innovative solutions for the world's most pressing issues. In research and academic programs, the university unites the natural and engineering sciences with the humanities, social sciences and medicine. This wide range of disciplines is a special feature, facilitating interdisciplinarity and transfer of science to society. As a modern employer, it offers attractive working conditions to all employees in teaching, research, technology and administration. The goal is to promote and develop their individual abilities while empowering everyone to reach their full potential. TUD embodies a university culture that is characterized by cosmopolitanism, mutual appreciation, thriving innovation and active participation. For TUD diversity is an essential feature and a quality criterion of an excellent university. Accordingly, we welcome all applicants who would like to commit themselves, their achievements and productivity to the success of the whole institution.

At the **Faculty of Mechanical Science and Engineering, Institute of Power Engineering**, the **Chair of Imaging Techniques in Energy and Process Engineering** offers a position as

Research Associate (m/f/x)

Development and application of wire-mesh sensors for thermohydraulic test facilities

(subject to personal qualification employees are remunerated according to salary group E 13 TV-L)

starting **March 1, 2026**. The position is limited until October 31, 2028 and entails 75 % of the fulltime weekly hours. The period of employment is governed by the Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz-WissZeitVG). The position offers the chance to obtain further academic qualification (usually PhD).

Tasks: Development of wire-mesh sensors for measuring flow parameters in test facilities. The following tasks are to be carried out in detail:

- development of sensor technology for spatially resolved measurement of gas holdup and flow velocity
- comparative evaluation of different sensor variants
- construction of a sensor with miniaturized transducers, testing and characterization
- conducting experimental studies on real test facilities

Requirements:

- excellent university degree (diploma, master's) in electrical engineering, precision engineering, physics, or a related subject
- interdisciplinary thinking, independent scientific work, practical experimental skills and abilities, and active communication with scientific partners are essential for the successful implementation of the project
- very good basic knowledge of mathematics and physics is desirable
- You quickly familiarize yourself with new topics, impress with your team-oriented and independent way of working, and have a command of English for scientific communication.

TUD strives to employ more women in academia and research. We therefore expressly encourage women to apply. The University is a certified family-friendly university. We welcome applications from candidates with disabilities. If multiple candidates prove to be equally qualified, those with disabilities or with equivalent status pursuant to the German Social Code IX (SGB IX) will receive priority for employment.

Please submit your detailed application with the usual documents by **February 2, 2026** (stamped arrival date of the university central mail service or the time stamp on the email server of TUD applies), preferably via the TUD SecureMail Portal https://securemail.tu-dresden.de by sending it as a single pdf file to **uwe.hampel@tu-dresden.de** or to:

TU Dresden, Chair of Imaging Techniques in Energy and Process Engineering,
Prof. Dr.-Ing. habil. Dr. h. c. Uwe Hampel, Helmholtzstr. 10, 01069 Dresden, Germany.

Please submit copies only, as your application will not be returned to you. Expenses incurred in attending interviews cannot be reimbursed.

TUD is a founding partner in the DRESDEN-concept alliance.

DRESDEN concept

Reference to data protection: Your data protection rights, the purpose for which your data will be processed, as well as further information about data protection is available to you on the website: https://tu-dresden.de/karriere/datenschutzhinweis.