Technische Universität Dresden

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 Manufacturing**, the **Chair of Laser-Based Manufacturing** offers a full-time position as

Research Associate (m/f/x)

(subject to personal qualification, employees are remunerated according to salary group E13 TV-L)

starting at the **earliest possible date** within a project funded by the German Research Foundation (DFG)**.** The position is limited to 36 months. 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: The focus of the activity lies in the research and development of laser-based microstructuring methods for the targeted functionalization of metallic surfaces. The aim is to specifically adjust wettability with respect to oils through suitable surface structures, as well as to influence friction and wear properties (tribology). This includes the planning and execution of laser processes for microstructuring, the systematic investigation of the relationships between process parameters, resulting surface topography and functional properties, as well as the development and setup of suitable experimental and analysis environments. A further essential component of the activity is the comprehensive characterization of the generated surfaces with regard to topography, wettability behavior and tribological properties using appropriate measurement and testing methods. The project is carried out in close cooperation with the Technische Universität Wien.

Requirements:

- university degree appropriate to the field of activity
- experience in the fields of materials engineering and/or materials science, as well as in conducting scientific projects
- if possible, experience in project coordination
- flexibility with regard to tasks
- very good German and English language skills (C1), both written and spoken
- experience in the field of laser technology is an advantage

TUD strives to employ more women in academia and research. We therefore expressly encourage women to apply. The university is a 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.

Application: Please submit your detailed application with the usual documents by **April 30, 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 **applications-lbf@tu-dresden.de** or to:

TU Dresden, Chair of Laser-Based Manufacturing, Prof. Dr.-Ing. Andrés F. Lasagni, 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.