Faculty of Mechanical Science and Engineering

The Chair of Mechanics of Multifunctional Materials at the Institute for Solid Mechanics offers, subject to resources being available, a position as

**Research Associate**

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

starting from **01.01.2019**. The position is limited until 31.12.2020 (2 years). The period of employment is governed by the Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz - WissZeitVG).

**Tasks:** numerical analysis of the switchability of active hydrogel composite membranes in the context of the filtration of biological cells within a DFG research project. The following objectives should be pursued: Modelling and Simulation of the active mechanical behavior of thin structures, microfluidic flow through the device and the interaction of biological cells with the membrane. The modelling should be performed on the continuum scale, the numerical solutions should be based on the Finite Element Method. Acquired results should be compared with experimental evidence. Close cooperation with the Research Training Group DFG-GRK1865 "Hydrogel-based Microsystems" and the Chair of Microsystems is desired.

**Requirements:** very good university degree (diploma, master degree) in mechanical engineering, physics or other engineering studies specialized in solid state and fluid mechanics. Additional knowledge in Finite-Element-Method, interest in engineering tasks and the ability for interdisciplinary cooperation. Good knowledge in German and English language is desired.

For further information, please call +49 351 463-37013, Fax: +49 351 463-32450.

Applications from women are particularly welcome. The same applies to people with disabilities. Please submit your comprehensive application including the usual documents by **01.11.2018** (stamped arrival date of the university central mail service applies) preferably via the TU Dresden SecureMail Portal https://securemail.tu-dresden.de by sending it as a single pdf document to thomas.wallmersperger@tu-dresden.de or by mail to TU Dresden, Fakultät Maschinenwesen, Institut für Festkörpermechanik, Professur für Mechanik multifunktionaler Strukturen, Herrn Prof. Dr.-Ing. Thomas Wallmersperger, Helmholtzstr. 10, 01069 Dresden. Please submit copies only as your application will not be returned to you. Expenses incurred in attending interviews cannot be reimbursed.

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