

Technische Universität Dresden - Research Training Group GRK 2868 D³ - Data-driven Design of Resilient Metamaterials



The Research Training Group GRK 2868 D³ - Data-driven Design of Resilient Metamaterials funded by the German Research Foundation has started in October 2023. Our vision is to develop and apply a data-driven approach to cross-scale materials discovery and design, in particular, goal-oriented, inverse design procedures based on process-structure-property linkages are of interest. The exploration aims at the mechanical performance as well as at the sustainability of the new metamaterials. D³ offers a competence- and publication-oriented qualification concept with co-supervision and international mentoring following a stringent schedule. D³ will provide a creative, motivating, and collaborative research environment with equal opportunities. Academic and business careers are actively supported by career development measures including at least one international research stay. For TUD Dresden University of Technology (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.

Research Associate / PhD student (m/f/x)

(subject to personal qualification employees are remunerated according to salary group E 13 TV-L) D³ offers a position as Research Associate / PhD student (m/f/x) starting April 1, 2026. The position is limited until March 31, 2030. 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).

City: Dresden; Starting date (earliest): 01/04/26; Duration: The position is limited until March 31, 2030.; Remuneration: subject to personal qualification employees are remunerated according to salary group E 13 TV-L; Reference number: w26-044; Closing date: 18/03/26

Tasks

The successful candidate performs scientific research on mechanical metamaterials with a particular focus on modeling and simulation of the deformation and failure behavior under influence of damage and extreme loading conditions. Both data- and physics-based modeling approaches are of interest in this context. The obtained results are to facilitate the inverse design of novel resilient metamaterials. The successful candidate participates actively in the qualification program and general scientific activities of D³. More information can be found at www.tud.de/ing/dcube

Requirements

- excellent university degree in mechanical engineering with a particular focus on computational mechanics
- fluent in English, ideally documented in terms of a B2 English language certificate

Application

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 by March 18, 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 markus.kaestner@tu-dresden.de or to:

TU Dresden, Chair of Computational and Experimental Solid Mechanics, Prof. Kästner, Helmholtzstr. 10, 01069 Dresden, Germany.

Documents should include a scientific curriculum vitae, a letter of motivation, a letter of recommendation, transcripts of records from the last two degrees with detailed grade summaries and your final thesis.

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.

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>.

More information at <https://stellenticket.de/202082/TUBS/>

Offer visible until 18/03/26

