



The Faculty of Mechanical, Process and Energy Engineering, Institute of Mechanical Process Engineering and Mineral Processing, seeks to fill the positions of **one**



research assistant (m/f/d) – tender number 139-E/2022

limited till 31.08.2025. (an extension to 12 months is being sought)

Salary: Pay group 13 TV-L
Job size: 100 % (Part-time possible, if applicable)
Start of work: 01.09.2022 or later

In May 2021, the Senate of the German Research Foundation (DFG) approved the Priority Program 2364 "Autonomous Processes in Particle Technology" (https://www.dfg.de/foerderung/info_wissenschaft/2021/info_wissenschaft_21_57/index.html), in which research and testing of concepts for model-based control of particle technology processes are being carried out jointly at more than 10 locations. A priority program offers unique working opportunities as it is integrating the research topic in a network of the national and international expert community of different university locations (https://www.mvm.kit.edu/SPP2364_APP.php). The subproject of the Institute of Mechanical Process Engineering and Mineral Processing deals with the product design of spray-dried agglomerates. The aim is to use an on-line imaging measurement technique to monitor the agglomerate properties in real time. μ -computer tomography is used as a further characterization method, which allows a detailed view into the pore structure of the agglomerates. The control concept and the structure-process relationships will be developed in cooperation with the University of Ulm (Institute of Mathematics), using machine learning methods.

Your tasks are:

- Working on a research topic in the field of particle technology and particle characterisation
- Further development and experimental research work on an automated spray drying system
- On- and off-line characterization of agglomerates from spray drying; (further) development of evaluation routines for image data from computed tomography
- Process modelling - data evaluation - digitization

What we offer:

- A varied and responsible job in the laboratories and at the excellent measurement technology of the institute MVT/AT; excellent research infrastructure in laboratory locations as well as in the associated particle analytics
- Integration of your research work into a professional network
- Industrial relevance of the research work; working at a family-friendly university with flexible working hours
- Remuneration according to the provisions of the collective agreement for the public service of the German states (Länder) in accordance with personal requirements; attractive fringe benefits, e.g. capital-forming benefits (VL), company pension scheme (VBL), health management; further training opportunities; discounted ticket for local public transport "Job-Ticket"

What we expect from you:

- Above-average Master degree (or equivalent) in process or materials engineering, chemical engineering, physics, applied natural sciences or comparable
- Knowledge of the basic processes of mechanical process engineering as well as programming
- Good English and German language skills (verbal and written) and readiness for further qualification

For further questions on the content of the individual topics, please contact Prof. Dr.-Ing. Urs Peuker
(urs.peuker@mvtat.tu-freiberg.de, 03731 39-2916).

Severely disabled or equivalent applicants (m/f/d) will be given preferential consideration in the event of equal suitability, performance and qualifications. For appropriate consideration, we ask that proof of the severe disability/ equality is attached to the application documents. The TU Bergakademie Freiberg aims to increase the proportion of women in teaching and research and is therefore particularly interested in applications from qualified women.

Please send your application with the usual documents, quoting the **tender code (139-E/2022)**, by **23.06.2022** (the postmark of the ZPS of the TU Bergakademie Freiberg applies) to:

TU Bergakademie Freiberg - Dezernat für Personalangelegenheiten - 09596 Freiberg
mail: bewerbungen@tu-freiberg.de

Your application materials will not be returned; please submit copies only. Interview costs will not be covered. The TU Bergakademie Freiberg is also looking for scientific personnel from different disciplines. Information under: <http://tu-freiberg.de/wirtschaft/karriere/stellenausschreibungen>