



Technische Universität Berlin



Research Assistant - salary grade E 13 TV-L Berliner Hochschulen

Faculty V - Mechanical Engineering and Transport Systems, Institute of Machine Tools and Factory Management / Chair Machine Tools and Technologies for Additive Manufacturing of Precise Metallic Components

Reference number: V-354/25 (starting at the earliest possible / limited until 31/10/2027 / closing date for applications 05/09/25)

Your responsibility:

For the development of an innovative R&D project in the field of functionalised hybrid construction platforms and process-coupled FFF metal processing, an assistant researcher (m/f/d) with extensive expertise in additive manufacturing, ceramic materials and thermal and fluid process control is required.

The role involves developing a novel construction platform system with integrated thermal functionalisation, active hot air guidance and automated transfer to networked process modules. The position requires an interdisciplinary approach at the interface of materials engineering, design and process engineering, including software-based control and plant interfaces.

- independent processing of research projects in the field of additive manufacturing and technologies for precision engineering
- production-oriented design of AM precision components with regard to the process chain
- integration and testing of the semi-automated process chain to be developed
- participation, coordination and organization of research projects in close cooperation with industrial companies, research associations and scientific partners
- collaboration in research in the field
- independent planning, execution and evaluation of the research activities
- presentation of research results to industry representatives and scientists at international conferences and trade fairs

Your profile:

- successfully completed university degree (Diplom, Master or equivalent) in Material Science, Production Technology or related engineering science
- holistic understanding of process chain and knowledge of additive manufacturing
- experiences in working with FFF-machine techniques as well machine tools
- deep knowledge in the field of CAD
- comprehensive knowledge of the production-oriented design of sample components and prototypes in the field of additive manufacturing, in compliance with specific design guidelines and the orientation of AM components
- knowledge of a programming language for process modelling, e.g. Python or Matlab
- knowledge of simulation-based component and process evaluations, e.g. FEM
- willingness to scientific work in a committed team is desirable
- independent, systematic and structured working method as well as knowledge with regard to design and execution of experiments is a plus
- willingness to work in laboratories and to carry out business trips - also to non-European countries desirable
- good skills in German (level C1) and/or English language in speech and writing required; willingness to learn either English or German is expected

How to apply:

Please send your application with the **reference number** and the usual documents **via email to** Institute for machine tools and factory management, Chair of Machine and Technologies for additive precision manufacturing of metallic components, **Prof. Dr.-Ing. Julian Polte via sekretariat@mtap.tu-berlin.de**.

By submitting your application via email you consent to having your data electronically processed and saved. Please note that we do not provide a guaranty for the protection of your personal data when submitted as unprotected file. Please find our data protection notice acc. DSGVO (General Data Protection Regulation) at the TU staff department homepage: https://www.abt2-t.tu-berlin.de/menue/themen_a_z/datenschutzerklaerung/.

To ensure equal opportunities between women and men, applications by women with the required qualifications are explicitly desired. Qualified individuals with disabilities will be favored. The TU Berlin values the diversity of its members and is committed to the goals of equal opportunities. Applications from people of all nationalities and with a migration background are very welcome.

The vacancy is also available on the internet at:
<https://www.jobs.tu-berlin.de>

