

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 Material Handling and Industrial Engineering**, the **Chair of Material Handling** offers a position as

**Research Associate (m/f/x)**

(subject to personal qualification employees are remunerated according to salary group E 13 TV-L)

starting **as soon as possible**. The position is within a project funded by the European Regional Development Fund (ERDF) and initially limited until April 17, 2026. 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.

**Tasks:** You will face the challenges of optimizing supply chains, especially with regard to container localization and inventory forecasting. The focus is on the development of a practical solution that makes it possible to track even low-value containers. Your tasks include:

- Developing strategies and technologies for smart container localization.
- Investigation of optimization potentials for reliability, efficiency and sustainability.
- Development and testing of a module (in the form of a simulation model) for the automated localization and inventory estimation of containers.
- Application of machine learning methods to forecast the current inventory.
- Optimization of localization systems using simulation-based configuration.
- Technical coordination of the joint project: organization of the division of tasks between the company and the university.
- Preparation, documentation and presentation of findings in the form of presentations, reports and scientific publications. Publications.

**Requirements:**

- university degree, and, if applicable, PhD degree, in engineering or economics; preferably with focus on production and logistics
- basic knowledge on the listed topics and motivation to familiarize with the subjects' details
- systems and analytical thinking skills for the reduction of complex issues
- ability to abstract in order to transfer scientific results into practical application
- good to very good German and English skills (written and spoken)
- collaborative, collegial and goal-oriented working style
- willingness to further academic qualification.

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 and offers a Dual Career Service. 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 with the usual documents by **June 5, 2024** (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 [technische.logistik@tu-dresden.de](mailto:technische.logistik@tu-dresden.de) or to: **TU Dresden, Fakultät Maschinenwesen, Institut für Technische Logistik und Arbeitssysteme, Professur für Technische Logistik, Herrn Prof. Dr.-Ing. habil. Thorsten Schmidt, 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.

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**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>.