

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 **"Friedrich List" Faculty of Transport and Traffic Sciences, Institute of Logistics and Aviation**, the **Chair of Air Transport Technology and Logistics** 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** and limited to 36 months. 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).

Tasks: As part of a DFG-funded research project, the Chair is working to enhance the potential of flight path optimization within the context of Air Traffic Management (ATM). This aim is twofold: search for robust optimization concepts for multiple aircraft forming an operationally efficient arrival sequence to a major airport, and the integration of flight path optimization into aircraft sequencing to ensure that safe separation between aircraft is maintained at all times.

We are seeking a researcher with the intention of pursuing a PhD in the field of robust optimization on innovative mobility concepts. The focus is on managing traffic demand at major airports through the development and validation of an integrated Arrival Management System (AMAN+) for the flight path and sequence planning of multiple aircraft in their approach area, whilst accounting for uncertain operational and atmospheric conditions. The role involves developing hybrid optimization approaches for different approach procedures (primarily Trombone and Point Merge), conducting simulation-based case studies and human-in-the-loop experiments involving air traffic controllers and pilots. Commitments of associated partners to the Chair for cooperation have been received from the Free State of Saxony, DFS – Deutsche Flugsicherung (German ANSP), and Leipzig/Halle Airport.

Requirements:

- university degree (Master in Transport Engineering, Aerospace Engineering, Information Technology, Automation Technology with a focus on transport, or a comparable qualification)
- computer and IT skills
- knowledge in the fields of transport and/or aerospace engineering or information technology
- You are characterized by initiative, the ability to work independently and a strong motivation to pursue a PhD, as well as a friendly and professional manner and the ability to work well in a team.
- You are fluent in spoken and written English.

We offer:

- the opportunity for engaging and independent work within a flat hierarchy, in an open-minded team and supportive atmosphere
- opportunity to train yourself in project presentation and management techniques
- flexible arrangements for work hours to support a good work-life balance
- 30 days of vacation per year (based on a 5-day workweek)
- extensive opportunities for professional development and continuing education

- health care and sports programs offered by TUD
- a discounted job ticket (also available as a Deutschlandticket)
- participation in the supplementary pension scheme for employees in the public sector via VBL (Federal and State Government Employees Retirement Fund)

TUD strives to employ more women in academia and research. We therefore expressly encourage women to apply. The university is a 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.

Application: Please submit your detailed application with the usual documents by **June 15, 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 hartmut.fricke@tu-dresden.de or to:

**TU Dresden, Chair of Air Transport Technology and Logistics, Prof. Hartmut Fricke,
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.

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>.