



Technische Universität Berlin



Research Assistant - PhD - 0.5 working time - salary grade E13 TV-L Berliner Hochschulen

Faculty V - Mechanical Engineering and Transport Systems, Institute of Land and Sea Transport / Chair of Transport Systems Planning and Transport Telematics

Reference number: V-500/25 (starting at 01/04/26 / limited until 30/06/2029 / closing date for applications 28/11/25)

About us:

This CRC, involving four universities and the German Aerospace Center (DLR), will conduct research in the coming years with 25 doctoral researchers working on 20 research topics. The CRC pursues the following overarching research objectives: (1) the development of a new, consistent methodological framework for mobility planning and management, (2) the integration of a modular indicator system for responsible mobility, (3) the embedding of planning methods into the open AgiMo Digital Twin, and (4) the development of participatory planning processes based on the technical results of the digital twin, in order to design forward-looking scenarios for responsible mobility that are both technically sound and aligned with the interests of relevant stakeholders.

Your responsibility:

- Participation in research activities
- Work on subprojects C3 and C4 within the above-mentioned CRC. Subproject C3 focuses on the development of a digital twin for the purpose of traffic planning. Subproject C4 concerns the application of this digital twin to calculate various future scenarios for the transport system, particularly with regard to decarbonization
- Further development of the traffic simulation software MATSim
- Collaboration with national and international partners

Your profile:

- Successfully completed scientific university degree (Master, Diplom or equivalent) in Computer Science or an equivalent field
- Completed PhD in a STEM discipline
- Extensive experience with the simulation software MATSim, particularly with the MATSim framework and the implementation of new functions in MATSim
- Substantial experience in large-scale programming projects, especially in the design and development of frameworks with a focus on software architecture
- Excellent programming skills in Java
- Experience with version control systems (e.g., Git) and continuous integration
- Experience in processing georeferenced data (GIS) such as GPS data and mobile network data
- Experience in transportation demand modelling
- Clearly structured and process-oriented working style desirable
- Knowledge in the field of transport planning
- Good command of German and/or English required; willingness to learn either English or German is expected
- Strong analytical skills and ability to work in a team
- Multidisciplinary orientation

How to apply:

Please send your application **with the reference number** and the usual documents **only via email** (bundled in one PDF document, max. 5 MB) to Prof. Dr. Nagel via sekretariat@vsp.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>

