At "Friedrich List" Faculty of Transport and Traffic Sciences, the Institute of Railway Systems and Public Transport seeks to appoint an outstanding candidate to the Chair (W3) of System Safety in Transport at the earliest possible date.

The chair is the central pillar for the emerging field of Automated and Connected Mobility. With its methodological and intermodal focus on the safety of sociotechnical systems, it occupies a central field of competence from which intermodal research on vehicles, infrastructure and operations benefits.

Among others, the fields of research you will cover are innovative simulation models and procedural methods for the design of high-security traffic systems with constantly increasing efficiency and capacity requirements. We require the ability and willingness to offer courses in English as well as your active participation in academic self-administration. A railway safety laboratory with staff equipment will be available to you for teaching and research projects in the field of rapid and real-time simulation.

We are looking for a scientist with an internationally proven track record in the fields of functional safety and the safety in the use of socio-technical systems in transport with a focus on automated and automatically operated systems. We particularly encourage applications from candidates with expertise in at least one of the following areas:

- quantitative methods of risk analysis and safety assessment
- safety-relevant design procedures for socio-technical transport systems in the area of the approval of at least one mode of transport
- methods of fast-time simulation of socio-technical systems (e. g. agent simulations)
- experience in the application of stochastic methods for the analysis of safety-relevant facts
- design of operating equipment for safety-critical technical systems.

We place special importance on your experience in working with methods of artificial intelligence (Petri nets/CPN, deep learning) and machine learning (un-/supervised learning techniques). Experience in intermodal research is a plus. If you hold a university degree in the field of transport sciences or related relevant disciplines, possess pedagogical aptitude as well as the special aptitude for scientific work, which is usually proven by a doctorate / PhD degree, as well as further outstanding scientific achievements we welcome your application. This can be demonstrated by a habilitation, a junior professorship or equivalent achievements. Applicants must fulfil the employment qualification requirements of § 58 of the Act on the Autonomy of Institutions of Higher Education in the Free State of Saxony (SächsHSFG). We particularly appreciate your experience in applying for and carrying out research projects, in obtaining third-party funding (with special consideration given to DFG funding) and in successful international publication activities.

If you have any questions regarding the call for applications, please contact the Dean of the "Friedrich List" Faculty of Transport and Traffic Sciences, Prof. Dr.-Ing. Günther Prokop (+49 351 463-36660).
TU Dresden seeks to employ more female professors. Hence, we particularly encourage women to apply. Applications from candidates with disabilities or those requiring additional support are very welcome. The university is a certified family-friendly university and has a dual career service. If you have any questions about these topics, please contact the Equal Opportunities Officer of the "Friedrich List" Faculty of Transport and Traffic Sciences (Dr. Susann Richter, +49 351 463-36514) or the Representative of Employees with Disabilities (Roberto Lemmrich, Tel.: +49 351 463-33175).

Please send your application with a curriculum vitae, a description of your scientific career, a list of publications and previous teaching activities, including the results of the teaching evaluation (preferably of the last three years) as well as a certified copy of the certificate of the highest academic degree acquired until 27.08.2020 (stamped arrival date of the university central mail service applies) to: TU Dresden, Dekan der Fakultät Verkehrswissenschaften „Friedrich List“, Herrn Prof. Dr.-Ing. Günther Prokop, Helmholtzstr. 10, 01069 Dresden and in electronic form (CD, USB storage medium or via the TU Dresden SecureMail Portal, https://securemail.tu-dresden.de, to dekanat.vw@tu-dresden.de).

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.