RESEARCH ASSOCIATE

Project Title: Service quality monitoring for public transport systems

TUM Create is doing research in planning, operation and infrastructure requirements for Semi-Rapid Transit Systems (SRT) in large megacities using Singapore as a case study.

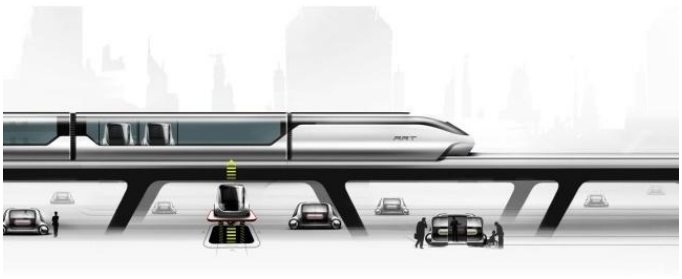
We are looking for an applicant with strong analytical skills, background in computer science and experiences in ITS and public transport simulation to join our research team. There is the possibility of pursuing a doctoral thesis within this thematic area (to be decided within the first year).

Project Description:
In an integrated, multi-modal network, the operator must make strategic decisions to apply measures that fit to constantly changing situations. The aim of the research is to introduce data filtering / data fusion techniques and to develop automated service quality monitoring methodologies for a continuous and predictive quality monitoring throughout the transport system. A strategic decision support toolkit for managing a multi modal transport network must be developed that gives advice to network operators concerning traffic control. Valid scenarios shall be implemented in a prototype version and tested with the help of mesoscopic system simulation.

Requirements:

- Master's degree in
  Computer science or equivalent – theoretical knowledge and practical experience in microscopic traffic simulation; experience in transportation engineering, preferably in the fields of ITS for public transport.
- Knowledge of PTV VISSIM is an added advantage.
- Able to work in a multicultural environment.
- Willingness for several short-term work stays at TUM, Munich.
- Willingness to pursuing a doctoral thesis

Position is available immediately. Interested candidates should send their full applications via email, including a resume, academic transcripts and a cover letter to Dr. Andreas Rau (andreas.rau@tum-create.edu.sg). We thank all applicants for the interest, but only shortlisted candidates will be notified.



ABOUT TUM CREATE

We are developing cutting-edge technologies and transportation concepts for public transport to meet the growing transport and sustainability challenges in fast-growing megacities. Germany's Technische Universität München (TUM) and Singapore's Nanyang Technological University (NTU) — two world-leading engineering universities — have come together to collaborate on this ambitious joint research programme. It is funded by Singapore's National Research Foundation.