

MOBILITY INNOVATIONS FOR GROWING MEGACITIES

Organized by TUM in Singapore

NOTE: If you uploaded your abstract on EasyChair previously and still wish to present your research, you may resubmit your proposal

1. Call for Papers

9.7 Billion – World population forecasted by UN for the year 2050

6.6 Billion – UN's projection of world population expected to live in urban areas by 2050

These facts suggest an increase not only in the number of large cities around the world, but also their density, catchment area and consequently the need for mobility services. Opinions about the future of transportation are multitude. One future emphasizes public transit, while another emphasizes autonomous vehicles and urban air mobility. In reality, the future holds a middle ground. As urban areas grow, cities will become more complex and difficult to optimize from a mobility viewpoint. System level optimization of urban mobility enabled by a wellintegrated public transit is one plausible solution to this problem. For more solutions, we invite you to share your ideas on how to develop transportation systems which can sustain the rapid rise in urbanization.

The mobil.TUM International Scientific Conference on Mobility and Transport is a platform for practitioners and researchers to meet and exchange their knowledge and experiences. Traditionally, it takes place in Munich, Germany. This time around, the 12th edition of mobil.TUM will be held in Singapore, organized by TUM's local organizations. This is a unique opportunity, which enables keynote speakers from diverse and multi-faceted research backgrounds to provoking debates, as well as posters, presentations, discussions, and interactive networking formats. Moreover, the perspective from the Asian landscape presents an opportune moment, which will enable inspiration from the latest innovations and explore new directions where public transit is headed to meet the rising challenge of rapid urbanization.

Key topics of interest include, but are not necessarily limited to:

- **Transit Oriented Planning and Development**

Importance of density and mixed-land use in Transit Oriented Development (TOD), accessibility planning, proximity planning, transportation demand management, integration of land-use planning and sustainable transport, economic and social impacts of TOD, ...

- **Public Transport Concepts for Green Cities**

Latest developments in propulsion systems, new and improved technologies, effects of transition from "vehicleoriented" to "people-oriented" ideology, public transport sustainability, system effectiveness indicators, ...

- **Shared Mobility Solutions**

Vehicle/ride sharing in urban centers, autonomous and connected vehicles, effects of citizen-oriented and equitable services, concept of disruptive mobility services merged into a single-user interface, Fractal ownership, P2P Carsharing, Station-based vs Free-Floating Carsharing, Active mobility solutions (cycling, walking) ...

- **Data Analytics in Transport**

Big data in transportation, new opportunities and risks in data acquisition, fair data management, urban transportation data analytics, progress and effects of digitalization in transport systems, measuring, analyzing and mitigating environmental impacts, ...

- **Impact of New Communication Concepts on Transport**

Personalized ITS-technology, automation and self-organization in traffic flow and control, cloud-computing and internet of things applied in ITS, connected technology (V2X), V2V using DSCRC technology and its impact on relative vehicle speeds, ...

- **Modelling and Simulation of Transportation Systems**

Travel behavior research, integrated land-use and transport modelling, travel demand modelling, microsimulation of traffic, environmental impact modelling, urban freight modelling, modelling in a multi-modal environment, systems thinking and system modelling, ...

- **Environmental Impacts of Transport**

Transport impacts on climate change, noise emissions, gaseous emissions, visual impacts, social equity and emissions exposure, ...

Contributions from diverse backgrounds, disciplines, regions, and cultures are very welcome. We will accept proposals for lectern presentations, poster presentations, where research ideas and works in progress can be discussed. Criteria for acceptance are:

- Relevance for the conference's general topic and focus on selected topic areas
- Scientific quality in terms of methodologies applied and data handling
- Usefulness for practice supported by successful implementations and/or relevance for scientific progress

Submission of proposals

Please submit your extended abstracts (1,000 – 1,500 words) including title, authors, affiliation, contact information of corresponding author, and keywords using the conference website tum-asia.edu.sg/mobiltum2022/

Extended abstracts should include:

- Problem statement
- Research objectives
- Methodological approach
- (Expected) results

Authors of accepted proposals will be invited to optionally submit a full paper by January 15th, 2022 (4,000 – 6,000 words). Full papers handed in on time will benefit from a peer-review. Contributions will be included in the conference either as a presentation in the plenary sessions or as a poster to be presented and discussed in a dedicated poster session. Please indicate your preference with the abstract submission. After the conference, authors will be invited to update their papers or abstracts based on the reviews and conference discussions and send a final version by May 15th, 2022. Selected papers that have been reviewed favourably are intended to be published in a special issue of a peer reviewed journal.

Important Dates

Abstract submission deadline:	October 15 th 2021
Acceptance notification:	November 25 th 2021
Full paper submission (optional):	January 15 th 2022
Final paper submission for publication:	May 15 th 2022

Venue and date

Singapore
April 5th-7th, 2022

Fees (Normal/Early Bird)

Attendees: 450 SGD/350 SGD (approx.281€/218€)
Online sessions (zoom): 200 SGD/160 SGD (approx.125€/100€)
PhD Students*: 300 SGD/240 SGD (approx. 188€/150€)
*certificate of enrolment required

The registration fee covers the costs for admission to the conference, lunch and coffee breaks during the 3 days of the conference, and the conference dinner.

Please visit the conference website for further information and news tum-asia.edu.sg/mobiltum2022/

On behalf of the organizing committee

Prof. Dr.-Ing. Fritz Busch

TUM Emeritus of Excellence
Technical University of Munich

Conference contact:

Mahesh Hariharan, mahesh@tum-asia.edu.sg