

Shared Micromobility and Future Cities

Call for papers—Special issue in Transactions in Urban Data, Science, and Technology

Rationale

Increasing the use of sustainable transportation has long been regarded as a key way to create an eco-friendly, accessible, and livable urban environment. Shared micromobility, such as bikes, e-bikes, and e-scooters, is a typical sustainable transportation mode. Besides the advantages of being affordable and flexible in use, it has the potential to reduce air pollution, solve the first/last-mile problem, provide travel alternatives, and promote a healthy lifestyle by encouraging more cycling activities, and thus will significantly reshape human mobility and the future of our cities. The development and popularity of recent free-floating systems further increase the usage of shared micromobility in scale, enabling it to generate greater impacts on people, transportation, and cities. Future cities are the scientific imagination about the places where we work, live, study, and play. The cities nowadays in both developed and developing countries are facing some serious urban issues, like congested traffic systems, high housing prices, environmental pollution, and social inequity. Ideally, all these issues should be carefully considered and well addressed in a future city. Associated with various potential socioeconomic and environmental benefits, shared micromobility is reasonable to be regarded as a “smart” choice to address current urban issues and a key component to establishing future cities that are more sustainable, inclusive, and livable.

On the other hand, in recent years, benefited from the open data movement, more and more user-generated micromobility data are available for public use and research purpose in many cities like New York City in the United States, London in the United Kingdom, and Buenos Aires in Argentina. Some leading service providers, including those in China, are

willing to provide anonymous data to support data-driven research. In addition, the research of shared micromobility is greatly powered by some advanced technologies in big data and artificial intelligence, making it easier to reveal interesting patterns from massive trip data. However, despite the shared micromobility studies are booming, there remains a lot of issues to be explored, especially considering the rapid development of the micromobility industry worldwide.

The scope of Topics

With this background, we are excited to introduce this special issue on “shared micromobility and future cities”. Being in line with the scope of this journal, it emphasizes the use of new data, technologies, and methods to investigate shared micromobility and its influence on creating a better future city.

The contributions may include but are not limited to the following topics:

1. The applications of large datasets and advanced methods/models (e.g., GIS, Machine Learning, and Big Data Analytics) in understanding shared micromobility
2. Towards a future city by incorporating shared micromobility into the future mobility systems.
3. Usage pattern mining of shared micromobility, such as the user portfolio, spatiotemporal patterns, etc.
4. Evaluation and quantification of shared micromobility’s impacts on cities, transportation, and people. Topics may include the impacts of shared bikes/e-bikes/e-scooters on environmental sustainability, public health, safety, social equity, travel efficiency, accessibility to public facilities, and the relationship with other transportation modes, etc.
5. Design and optimization of shared micromobility systems (e.g., dock stations,

special lanes, repositioning, etc.)

Guidelines

Submissions should be prepared according to the “Submission Guidelines” available on the journal homepage <https://us.sagepub.com/en-us/nam/transactions-in-urban-data-science-and-technology/journal203731#submission-guidelines>. Please visit the Journal’s submission site <https://mc.manuscriptcentral.com/tus> to upload your manuscript. Submitted papers should not have been previously published nor been currently under consideration for publication elsewhere. To ensure that all manuscripts are correctly identified for inclusion into the special issue, it is important to select “Shared Micromobility and Future Cities” when you reach the “Article Type” step in the submission process and indicate the special issue in your cover letter.

Abstracts for papers should contain the following information: name and affiliation of the authors, the title, and an abstract description (max. 200 words). The authors are recommended to send their abstract to the guest editor Yongping Zhang at yongpingzhang@zju.edu.cn. After the abstract is approved by the guest editors, the authors are invited to submit a full paper, which will then go through a peer-review process. Please note that the papers can be submitted any time before the deadline. The authors can also directly submit the full paper in the journal’s submission system, without contact in advance with the guest editor.

Timeline:

- August 31, 2022: Abstract submission.
- December 31, 2022: Full paper submission.
- March 31, 2023: Notification of the first-round reviews.
- June 30, 2023: Notification of the second-round reviews, if necessary.

- September 30, 2023: Special issue published.

Guest editors

Yongping Zhang, yongpingzhang@zju.edu.cn, Zhejiang University, China

Hui Kong, kongh@umn.edu, University of Minnesota, USA

Diao Lin, dlintum@outlook.com, Technical University of Munich, Germany