

### **DAVeMoS**

BMK Endowed Research Group for Digitalisation and Automation in the Transport and Mobility System

# Newsletter

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DAVeMoS is an Austrian Federal Ministry for Climate Action, Environment, Energy, Mobility, Innovation and Technology (Bundesministerium für Klimaschutz, Umwelt, Energie, Mobilität, Innovation und Technologie, BMK)'s Endowed Research Group with a mission to strengthen the competitiveness and knowledge building in the field of digitalisation and automation in the transport and mobility system at local, regional, national, and the EU levels.

Read more about DAVeMoS at:

www.davemos.online

Head of the group: Univ. Prof. Dr. Yusak Susilo yusak.susilo@boku.ac.at

Hosted by BOKU Institute for Transport Studies: www.boku.ac.at/en/rali/verkehr



Charisma Choudhury (Chair of IATBR), Leonore Gewessler (Federal Minister for Climate Action), Yusak Susilo (Head of DAVeMoS research group), Astrid Gühnemann (Head of institut of transport studies (IVe), BOKU)

#### 1. Report from the IATBR 2024 Conference

DAVeMoS had the honour of hosting the 17th International Triennial Conference on Travel Behaviour Research (IATBR). IATBR is an international organisation of academics, researchers, practitioners, consultants government and professionals dedicated to the advancement of travel behaviour research.

This year's conference was held in Vienna, Austria on 14-18 July 2024. The theme of the conference was "Transformative Travel Behaviour Research Looking beyond Back-to-Normal". With the increasing digitalisation of our daily lives, uncertainties in the supply chain and the overall economic situation, as well as new habits and values that have emerged during the pandemic, are challenging our idea of typical travel patterns as well as the

assumptions on which our transport models are based. It is therefore important to identify the triggers that lead to profound and transformative changes in behaviour that go beyond what we can see with our traditional approaches.

The conference received 512 registrations from 42 countries, 353 presentations (from more than 600 submitted extended abstracts) on 14 different topics. The presentations were organised into 96 parallel sessions. During the conference, 8 workshops and 2 special events were also organised.

#### Day 1: 14 July 2024

One the first day we started the 2024 IATBR conference with a very well attended Welcome Reception at the conference venue.

















#### Day 2: 15 July 2024

Day 2 began with a welcome from the Austrian Federal Minister for Climate Protection, Environment, Energy, Mobility, Innovation and Technology, Minister Leonore Gewessler. This was followed by an inspiring opening speech by Prof. Gerd Sammer. In the afternoon plenary session, **Prof. Chandra Bhat** from the University of Texas at Austin captivated us with his presentation on "A unified approach to teasing out causal relationships in travel behaviour analysis". We closed today's conference with a special tribute to the late Prof. Ilan Salomon.

























#### Day 3: 16 July 2024

Day 3 began with an insightful plenary session by **Prof. Sonja Haustein** on 'Transport Behaviour Change - A Psychological Perspective'. The day continued with the announcement of the Eric Pas Award winners for 2021 and 2022, **Jason Hawkins** and **Shobhit Saxena**.

The highlight of the evening was the Welcome Dinner at the stunning Rathaus, Vienna's City Hall. During the dinner, the IATBR Board presented the Lifetime Achievement Award to **Prof. Kay Axhausen** and **Prof. Hani Mahmassani** for their outstanding dedication and contributions to the field of transport, especially travel behaviour.













Day 4: 17 July 2024

Day 4 began with presentations from our two Lifetime Achievement Award recipients, **Prof. Kay Axhausen** and **Prof. Hani Mahmassani**. In the afternoon plenary session, **Prof. Mei-Po Kwan** from the Chinese University of Hong Kong captivated us with her presentation on "Advanced Geospatial Technologies and Methods for Human Mobility and Health Research". What made day 4 really special

were the 14 excursions to various fascinating locations. These included not only transport-related sites, but also beautiful museums around Vienna and even a city bike tour. The day ended with a farewell dinner at the Luftburg in the Prater, enjoying the outdoor atmosphere of Vienna's most beautiful amusement park.

























#### Day 5: 18 July 2024

Day 5 started with a keynote speech by **Prof. Martin Raubal** on "Supporting sustainable mobility behaviour through spatial data analysis". Later in the day, the leaders/representatives of 8 workshops reported on the results of their activities. **Alex Erath** also reported on the inauguration of the European

Association for Activity-Based Modelling (EAABM), which took place during the conference. The conference was closed by the Chair and the Secretary of IATBR, Charisma Choudhury and Giovanni Circella, Emily Moylan presented the new conference venue in 2027, i.e. Sydney, Australia.









#### **Post Conference**

As a part of the IATBR 2024 post-conference publications, 11 special issues have been prepared:

- Transportation Research part A: Policy and Practice, with Taha Rashidi (University of New South Wales) as the lead guest editor
- Transportation Research part B: Methodological, with Abdul Rawoof Pinjari (Indian Institute of Science) as the lead guest editor
- Transportation, with Prateek Bansal (National University of Singapore) as the lead guest editor
- Journal of Transport Geography, with Juan Antonio Carrasco (University of Conception) as the lead guest editor
- Transportation Letters, with Konstadinos G. Goulias (University of California Santa Barbara) as the lead guest editor
- Journal Transport and Health, with Patrick Singleton (Utah State University) as the lead guest editor
- · Journal of Choice Modelling, with Chiara Calastri (University of Leeds) as the lead guest editor
- European Transport Research Review, with Miloš Mladenović (Aalto University) as the lead guest editor
- European Journal of Transport and Infrastructure Research, with Maarten Kroesen (Delft University of Technology) as the lead guest editor
- Travel Behaviour and Society, with Makoto Chikaraishi (Hiroshima University) as the lead guest editor
- Transportation Planning and Technology, with Khandker Nurul Habib (University of Toronto) as the lead guest editor

The dedicated website for the conference was: www.iatbr2024.org

Yusak Susilo



















#### 2. Metropolis-Hastings based population synthesis

During the first half of 2024, Franz-Xaver Rupprecht, a student at the Vienna University of Technology, wrote his master's thesis on population synthesis in the DAVeMoS research group. The following chapter aims to give an insight into what population synthesis means and what it is good for.

A large number of different measures have been proposed to achieve a sustainable transition in the transport sector. They vary greatly in terms of costs and benefits. While costs are easy to determine, it's difficult to estimate the benefit of a measures before they are even implemented. This is where transport modelling comes in. It allows the evaluation of all kinds of effects and thus enables a reliable cost-benefit analysis.

The conventional four-step model was the most widely used type of transport model in the last century and is used today. However, it has significant weaknesses, particularly with regard to the evaluation of active transport modes. The most important of these is that it doesn't treat travellers as individuals who follow a consistent path throughout the day before returning to their home location. As a result, it can't attribute characteristics such as age or income to these individuals, even though these are important determinants of mode choice. Furthermore, multimodal trips cannot be simulated, although they are becoming more important with the rise of the sharing economy.

This, among other reasons, has led to the increasing use of agent-based transport models, which capture travellers as individuals and allow the analysis of their

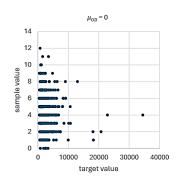
movements throughout the day.

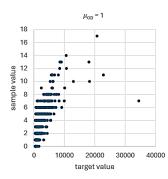
The first step in implementing such an agent-based model is to synthesise a population of agents that represent the population of the study region in terms of their travel behaviour. This is what is meant by population synthesis.

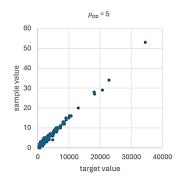
The aim of Franz's master's thesis was to use the Metropolis-Hastings algorithm to convert the travel demand of a conventional transport model into a format that can be used by a downstream agent-based model. This was done by disaggregating the existing OD-matrix into a list of consistent and home anchored round trips. This generated list of round trips represents the travel demand of the synthetic population.

The methodology was applied to the city of Vienna and the following scatter plots show the reproduction quality of the input data. Each blue point refers to an OD relation, e.g. Meidling-Döbling. The x-value shows the number of trips on that relation in the target data, and the y-value shows the number of trips on that relation made by the synthetic population. Since the blue dots become more and more diagonally aligned as the weight of the od replication increases, we can see that the methodology works well for this type of replication task. Even if these first results are far from being sufficient for a reliable agent-based simulation, the further development of the methodology seems to be a goal worth pursuing.

Franz-Xaver Rupprecht



















#### 3. Impact of Built Environment to Cyclists' Cognitive Load

Cycling offers a range of benefits to those who use it, including health, social and economic benefits. It is a mode of transport that produces little or no greenhouse gas emissions and can be a good urban transport option in the context of global warming.

Many European countries aim to increase the proportion of people who cycle. To encourage people to choose cycling over motorised vehicles in urban areas, it is important to consider the built environment. In order to better understand the influence of the built environment and traffic situations, this thesis focuses on the cognitive load of cyclists.

Cognitive load can be understood as the mental cost of performing tasks and is a limited resource. It influences behaviour and perceived safety in traffic, which in turn influences the likelihood of people choosing cycling as a mode of transport. Therefore, understanding the differences in built environment conditions on the cognitive load of cyclists provides information on which factors are important for urban transport planning strategies.

This study measures the cognitive load of cyclists not in the laboratory, as many previous studies have done,







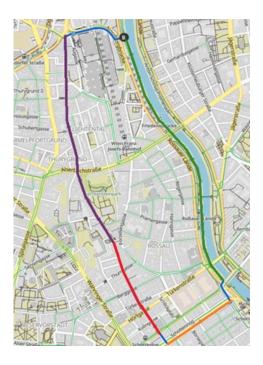
Variability of conditions of the cycling route

but in a naturalistic way in a real-world context in the city of Vienna, Austria. A smartwatch (Empatica E4) was used to measure electrodermal activity (EDA), which has been validated as a measure of cognitive load. Statistical measures are used to understand the differences between the different traffic segments and traffic volumes.

The results show that cyclists experience lower levels of cognitive load when they are physically separated from car traffic, either on mixed-use paths or on cycle lanes with built elements separating cyclists from cars. When cyclists have to share the road with cars, their cognitive load is higher. The highest cognitive load response is observed when cyclists cycle in a lane between car traffic and parked cars, separated by a line painted on the asphalt.

The results help to understand which traffic segments lead to higher cognitive load levels for cyclists and can therefore be taken into account by urban planners and policy makers when working to improve the built environment conditions for people cycling in an urban context.

Maximillian Panczyk

















#### 4. Closure of the Smarthubs project (May 2021-April 2024)

Over the course of the project, the Smarthubs project team, made up of researchers, mobility organisations and stakeholders from six European countries, worked to answer the following question. Can mobility hubs be a game changer for urban mobility and accessibility? The project partners conducted research and engaged with residents in living labs in four metropolitan areas: Brussels, Munich, Rotterdam/The Hague and Vienna. In Austria, the project work was extended to rural areas in Lower Austria. The Living Lab activities involved almost 3000 residents in experiments, cocreation events, co-evaluation sessions and a large-scale survey.

After three years of practice-oriented research, the design of four open source tools and an open data platform, five international symposia, more than 25 deliverables and several scientific publications, the lessons learned were translated into the final project "Making Mobility Hubs Smarter Recommendations for Practitioners and Policy Makers". Following the structure of the Smarthubs Integration Ladder, the report provides recommendations for improving the three core aspects of future mobility hubs: Physical Integration,

Democratic Integration and Digital Integration. Among other things, the report discusses the potential and requirements for integrating mobility hubs into sustainable urban mobility plans. The report is available online in English and German and all Smarthubs deliverables are available on the project website.

Although the project has come to an end, the project partners plan to use the knowledge gained to contribute to more sustainable, inclusive and accessible mobility systems in their regions. The Davemos group is now working on further scientific publications based on the project results.

Roxani Gkavra

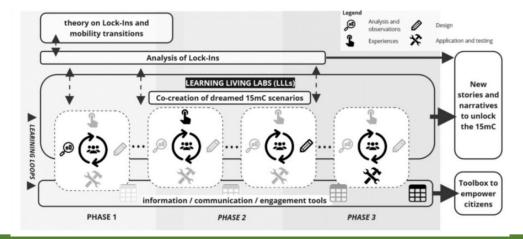


#### 5. Incoming Project: UNLOCK15 - Empowering people for transitions to unlock the 15-Minute City

DAVeMoS welcomes another project that will start in January 2025: UNLOCK15 - Empowering people for transitions to unlock the 15-minute city. This project aims to empower citizens and local authorities to unlock the behavioural, technological and institutional barriers to this transition through citizen and stakeholder engagement, institutional learning and the exploration of locally-rooted narratives.

This project is funded by the Driving Urban Transitions (DUT) programme. It involves six universities, six authorities, six non-profit organisations and four large and small businesses from six countries. In addition to DAVeMoS, Austrian institutions involved in the project include Mobyome, Urban Innovation Vienna - Policy Lab, Vienna Blooming, ONE.16, Verein Fairkehrswende Wien and Verein Mei Meidling.

Yusak Susilo















#### 6. Guest Professor Course and Lecture: Juan Antonio Carrasco

Professor Juan Antonio Carrasco from the University of Concepción in Chile recently visited the University of Natural Resources and Applied Life Sciences (BOKU) in Vienna, where he taught a course on socially sensitive infrastructure planning. He also gave a presentation on the impact of accessibility on time use, social networks and spatial context, in particular with regard to food access and care mobility. His course emphasised the need to integrate social equity into infrastructure planning and encouraged critical reflection research practices. It also introduced a more design structured approach to research implementation, covering data collection and analysis methods through interactive discussions.

Professor Carrasco's presentation also highlighted the challenges of accessibility beyond spatial dimensions, focusing on the time and effort required to access essential services such as food and care facilities. He discussed how traditional planning often overlooks

these complexities and advocated for approaches that address the needs of caregivers and reduce time poverty. His visit fostered meaningful dialogue among students and researchers at BOKU, inspiring a deeper understanding of socially sensitive planning and promoting more inclusive and equitable urban development practices.

Muhamad Rizki



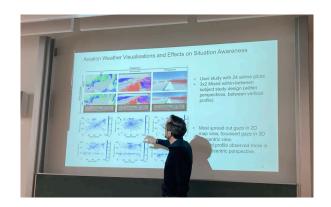
#### 7. Seminar on Spatial Decision-Making for Sustainability by Prof. Martin Raubal, ETH Zurich

On Wednesday 15 May, we were honoured to host an inspiring seminar by Prof. Martin Raubal, Professor of Geoinformation Engineering at ETH Zurich and Vice-Chairman of the Centre for Sustainable Future Mobility. The event attracted attendees interested in exploring cutting-edge approaches to spatial decision making for sustainability. Prof. Raubal explored how spatio-temporal data, computational methods and geospatial technologies are changing the way we analyse and predict human mobility behaviour. He emphasised that understanding mobility patterns is critical to achieving more energy efficient and safer mobility. Prof. Raubal also shared insightful real-world examples of the use of geospatial analytics, including Mobility-as-a-Service, of smart solutions for electric vehicles, and vehicle-to-grid optimisation for car-sharing.

Another fascinating highlight of the seminar was his work on using mobile eye tracking for pilot training and mobility behaviour research. These advanced analytics techniques are paving the way for the

inclusion of human factors in road safety research. Participants left with a deeper appreciation for the power of geospatial analysis to address sustainability challenges and create a more resilient world. Meanwhile. Prof Raubal discussed with the DAVeMoS new research ideas and collaboration opportunities.

Shun Su

















#### 8. FSV Planning Seminar 2024

In May 2024, the FSV planning seminar was organised for the eleventh time by the Institute of Transport Engineering at the University of Natural Resources and Applied Life Sciences, Vienna, in cooperation with the BMK Endowed Chair of Digitalisation and Automation in the Transport and Mobility System at the University of Natural Resources and Applied Life Sciences, Vienna (BOKU). As in previous years, the event was carried out by the team of the Road - Rail - Transport Research Association (FSV). The one and a half day seminar was held at the Hotel Marienhof in Reichenau an der Rax in Lower Austria.

This year's theme was tourism mobility. Tourism brings significant economic benefits to Austria by creating jobs and contributing to regional value creation. At the same time, the associated motorised mobility of holidaymakers poses numerous challenges in terms of reconciling the associated traffic volumes with the objectives of the transport transition towards climatefriendly transport. This concerns both the journey to the holiday destination (e.g. choice of transport modes, travel costs, luggage transport, reliability and travel time) and local mobility. These topics were discussed in the seminar, starting with the existing situation, the objectives and strategies of the different stakeholders. Examples of implementation were then presented, which help to approach the existing objectives. Personal views, personal approaches and possible solutions were then discussed with the participants.

The event was attended by 40 people and included 10 presentations. The event was rounded off with a tour of the Südbahnhotel, which is currently in a deep sleep. It is planned to publish the presentations in the series of the Research Association Road - Rail -Transport (FSV).

Roman Klementschitz





#### 9. New research team members



JOHANNES BRUNNER is our external PhD student from Rosinak & Partner. He is planning to investigate the impact of redesigning urban spaces on the movement and interaction behaviour of different road users. He holds a Master's degree in Spatial Development and Infrastructure Systems from ETH Zurich. His research interests are microscopic traffic simulation and urban design in public spaces.



FRANZ-XAVER RUPPRECHT will continue his stay with us as a PhD student from July 2024. He was a Master student in Environmental Engineering at the Vienna University of Technology. He wrote his master's thesis with us in the field of transport modelling with MATSim, with a special focus on the generation of synthetic populations.















#### 10. DAVeMoS at Conferences

#### DAVeMoS at mobilTUM 2024

The mobilTUM 2024 conference on "The Future of Mobility and Urban Space" took place from 10<sup>th</sup> to 12<sup>th</sup> April 2024 at the ATLAS design office in Munich. The conference focused on five different themes. Each theme addressed current issues in the following fields:

- Placemaking to integrate urban spaces and mobility
- Promoting sustainable mobility choices in metropolitan areas
- Managing responsible mobility innovations
- Managing the transition to mobility justice
- System analysis, design and evaluation

In the session "Planning for Justice", Roxani Gkavra together with Julia Hansel (University of Münster, Institute of Political Science, Germany) presented their research on the interplay between travel behaviour and public participation in sustainable urban mobility. Based on survey data collected in four different European cities (Vienna, Munich, Brussels and Rotterdam/The Hague), the analysis focused on people's experiences with public participation, their interest in participating and their familiarity with different modes of transport, both conventional and new modes such as bike- and car-sharing. Statistical tests were used to identify group differences and to model predictors of the mobility profile.

Oliver Roider presented an analysis of users and nonusers of mobility hubs. Based on data collected in two very heterogeneous Austrian spatial entities (the City of Vienna and the Province of Lower Austria), the research focused on revealing people's current and future preferences regarding the operation and design of mobility hubs, as well as on identifying barriers that currently prevent people from using hubs and their services.

Further details of the conference are available at <a href="https://www.mos.ed.tum.de/sv/mobiltum-2024/">https://www.mos.ed.tum.de/sv/mobiltum-2024/</a>

Oliver Roider



#### **DAVeMoS at NECTAR Conference 2024**

At the 17th NECTAR Conference in Brussels, Belgium, organised by the Vrije Universiteit Brussel, Prof. Susilo presented the results of a collaboration with the Wiener Linien, which evaluates the users' demand and preference of the Hüpfer DRT service in Vienna. The presentation was well received and attracted a lot of interest and discussion.



#### DAVeMoS at CRBAM 2024

Roxani Gkavra presented her work on the Cycling Potential Index at the 8th Annual Meeting of the Cycling Research Board, 5-8 September at ETH Zurich, Switzerland.















#### **DAVeMoS Researchers Present at CEETRA 2024 Meeting in Vienna**

The Central European Excellence in Transportation Research Association (CEETRA) held its 2024 meeting on July 19 at the Vienna University of Economics and Business (WU), demonstrating cutting-edge research in the field of transport. Hosted by Stefanie Peer, the event featured presentations by researchers, including Roxani Gkavra and Yusfita Chrisnawati, two PhD student from DAVeMoS.

Roxani Gkavra's research investigated the potential of demand-responsive transport systems (DRT) to enhance mobility and accessibility in areas underserved by public transport. Her study focused on Vienna's recently introduced Hüpfer system and used survey data to assess people's willingness to use the service, as well as their sensitivity to changes in fare prices. The research was conducted in collaboration with Prof. Yusak Susilo, Dr. Oleksandr Rossolov, and Wiener Linien, Vienna's public transport operator.

Meanwhile, Yusfita Chrisnawati presented her findings on the dynamic interaction between bike-sharing user behaviour and station design elements, based on simulations using the agent-based model MATSim. Her detailed analysis explored key components of bikesharing systems, including station locations, usage patterns, spatial quantification, and station configuration.

Both researchers received constructive feedback from the audience, which included experts from various disciplines in transportation, to further enhance their ongoing research projects

Yusfita Chrisnawati



#### DAVeMoS at the 42nd International System Dynamics Conference 2024 in Bergen, Norway

From 4-8 August, the DAVeMoS team attended the 42nd International System Dynamics Conference (ISDC) in Bergen, Norway. The ISDC is an annual event that brings together global experts, practitioners and enthusiasts passionate about system dynamics and systems thinking. This year's conference attracted approximately 450 participants, both in person and virtually, from 60 countries, offering a hybrid format for greater accessibility. ISDC provides a platform for introducing newcomers to the field, updating practitioners on the latest advances, and creating invaluable networking opportunities across diverse sectors including academia, business, government, healthcare, transport and mobility, and more.

Shahnaz Nabila Fuady (Bella), a DAVeMoS PhD student, presented her research on modelling the business dynamics of shared micromobility fleet development. Using a system dynamics modelling approach, she explored how fleet size, user demand, regulatory framework and economic factors influence the success of shared micromobility systems. Bella's

work included sensitivity and uncertainty analyses to identify key parameters for managing fleet growth and ensuring the sustainability of these systems. Prior to the main conference, on 3 August 2024, she also participated in the PhD Colloquium, a valuable opportunity for PhD students to network and receive feedback on their research using system dynamics modelling. Bella presented her work in a table talk session within the Transport and Mobility group, sharing insights with fellow PhD students and expanding her network.

Shahnaz Nabila Fuady









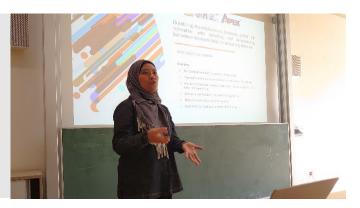






## 11. Seminar on Cyclists' Risk Perception and Speeding and Maneuvering behaviours

Dr Nur Sabahiah binti Abdul Sukor from Universiti Sains Malaysia visited DAVeMoS and gave a seminar on the relationship between cyclists' risk perception and speeding and manoeuvring behaviour, using VR and AR technologies.





### 12. Ars Docendi State Prize for excellent teaching at Austrian higher education institutions

Prof. Susilo is a part of a teaching team which has been awarded a Special Recognition for Institutional Teaching Development, at the 2024 Ars Docendi State Prize for excellent teaching at Austrian higher education institutions, by the Austrian Ministry for Education, Science and Research (BMBWF).













#### 13. List of DAVeMoS publications (04/24 – 09/24)

#### Peer-reviewed journal articles:

- 1. Fuady, S.N., Pfaffenbichler, P.C., Susilo, Y.O. (n.d.) 3. Bridging the gap: towards a holistic understanding of shared micromobility fleet development dynamics. Forthcoming at Communications in Transportation Research.
- Guo, J., Kang, X., Susilo, Y., Antoniou, C., Pernestål, A. 4. (2025) Temporal patterns of user acceptance and recommendation of the automated buses, Travel Behaviour and Society, 38, 100909, doi: 10.1016/j.tbs.2024.100909.
- Rizki, M., Rossolov, O., Susilo, Y.O. (2024) The barriers, and willingness-to-pay in determinants, motorcycle conversion (EMC) adoption, Energy Policy, 195, 114361, doi: 10.1016/j.enpol.2024.114361.
- 4. Rizki, M., Joewono, T.B., Susilo, Y.O. (2024) Towards understanding travel in the digital age: A cross- 6. dimensional one-week diary of individual virtual and physical activities in Indonesian cities. Transportation Research Part A: Policy and Practice, 187, 104195., doi: 10.1016/j.tra.2024.104195.
- 5. Rossolov, O. and Susilo, Y.O. (2024) Are consumers ready 7. to pay extra for crowd-shipping e-groceries and why? A hybrid choice analysis for developing economies. Transportation Research Part A: Policy and Practice, 187, 104177, doi: 10.1016/j.tra.2024.104177.
- 6. Muchlisin, M., Soza-Parra, J., Susilo, Y.O., Ettema, D (2024) Unraveling the travel patterns of ride-hailing users: A latent class cluster analysis across income groups in Yogyakarta, Indonesia, Travel Behaviour and Society, 37, 100836, DOI: 10.1016/j.tbs.2024.100836.
- 7. Rossolov, O., Holguín-Veras, J., & Susilo, Y. O. (2024). Post-Purchase Trip Heterogeneity: Exploring the Impact of Free and Paid Return Deliveries on Shopping and Transport Mode Choices in the USA. Transportation 10. Su, S., Susilo, Y., Fidler, M., Palmberg, R.C.O. (2024) The Research Record, doi: 10.1177/03611981241270155.
- Chrisnawati, Y., Susilo, Y.O. (2024) Dynamic demand patterns in the profit optimisation of bike-sharing station locations: an agent-based analysis of the greater Vienna region, Transportation Planning and Technology, DOI:10.1080/03081060.2024.2352737...

#### Conference presentations:

- 1. Fuady, S. N., Susilo, Y.O. and Pfaffenbichler, P. (2024) Modeling the **Business Dynamics** of Micromobility Fleet Development. The 2024 System Dynamics Conference, Bergen, Norway.
- Rossolov, O., Gkavra, R., Susilo, Y.O. (2024) Exploring the potential of demand responsive transport in Vienna City: the roles of driving experience and satisfaction with public transport services, NECTAR 2024 Conference, Brussels, Belgium.

- Muchlisin, M., Soza-Parra, J., Susilo, Y., Ettema, D. (2024) Unravelling the travel patterns of ride-hailing users: A latent class cluster analysis across income groups in Yogyakarta, Indonesia. 17th International Association of Travel Behavior Research, Vienna, Austria.
- Chrisnawati, Y., Susilo, Y., Hössinger, R., Flötterod, G. (2024) Travel Behavior Simulation Based Mobility Hub Placement, 17th International Association of Travel Behavior Research, Vienna, Austria.
- Rizki, M., Susilo, Y., Joewono, T.B. (2024) Exploring impacts of e-shopping and goods delivery usage within Transport-SuperApps (TSA) on daily time use: Evidence from one-week time- and app-use diary in Indonesian cities. 17th International Association of Travel Behavior Research, Vienna, Austria.
- Palmberg, R.C.O., Su, S., Fidler, M., Susilo, Y., Nybacka, M. (2024) What can our eyes and head movements tell us about how we scan our surroundings for information? 17th International Association of Travel Behavior Research, Vienna, Austria.
- Fidler, M., Susilo, Y., Su, S., Palmberg, R.C.O. (2024) Establishing an external validity of virtual reality in a micro-mobility context. 17th International Association of Travel Behavior Research, Vienna, Austria.
- 8. Gkavra, R., Susilo, Y., Bansal, P. (2024) Bike and escooter sharing spatiotemporal usage patterns: what determines and what differentiates them? 17th International Association of Travel Behavior Research, Vienna, Austria.
- Schilder, J., Susilo, Y., Stark, J., Hössinger, R. (2024) Adoption of shared mobility in rural cities: a latent class cluster approach. 17th International Association of Travel Behavior Research, Vienna, Austria.
- comparison of behaviours and physiological responses of travelling by bicycle and e-Scooter in a multi-modal virtual reality setup. 17th International Association of Travel Behavior Research, Vienna, Austria.
- 11. Fuady, S. N., Susilo, Y.O. and Pfaffenbichler, P. (2024) Modeling the **Business Dynamics** of Shared Micromobility Fleet Development. The 2024 System Dynamics Conference, Bergen, Norway.
- 12. Klementschitz R., Woloschtschuk I., Gkavra R., Husner G., Susilo Y. (2024): Bedarfsverkehr im ländlichen Raum zur Sicherung der letzten Meile, Analyse erfolgreicher Fallbeispiele aus dem Bundesland Salzburg. In: M. Schrenk, V. V. Popovich, P. Zeile, P. Elisei, C. Beyer, J. Ryser (Editors), Proceedings of 29th International Conference on Urban Planning, Regional Development and Information Society: Keep on planning for the real world, 2024; ISBN: 978-3-9504173-9













