Please REGISTER NOW for the

4th Bridging Transportation Researchers (BTR#4)

Online Conference

At **zero cost**, covid-free, and practically zero carbon, BTR #4 brings transportation engineers, planners, & policymakers together globally by removing the burden of travel, the cost of registration, & greenhouse gases associated with transport & accommodation. We welcome researchers and practitioners from diverse disciplines, & are delighted to include those unable to obtain visas or afford traveling to, and participating in, international conferences. Tell your friends, and …

Please join us online on August 4 & 5, 2022 for 2 days in **two hemispheres (!)** of multi-track Zoom-based meetings.

More Info

REGISTRATION + PROGRAM at
https://bridgingtransport.org/

Topics

Public transportation + emerging mobility services (shared, electrified), ITS & CAVs, travel demand modeling of passengers & freight, safety & infrastructure management, design & construction, & other transportation-related works. **Program to be released soon**, at www.bridgingtransport.org.

We look forward to seeing you on August 4 & 5.
Save carbon & cost, while educating & connecting our world's transportation community.

Headline Speakers

Don't miss 1-hour seminars by a stellar set of speakers:

Chile's Juan de Diós Ortúzar (at Pontificia Universidad Católica) speaking on "Role of Habit & Built Environment in Willingness to Commute by Bicycle"

Singapore University of Technology & Design's Lynette Cheah on "Decarbonizing Road-based Freight Transport"

University of Leeds' Charisma Choudhury (in UK) on "Leveraging Passively Collected Data Sources for Travel Behaviour Modelling"

Chulalongkorn University's Agachai Sumalee (in Thailand) on "IoT, Analytics & Transport Systems in Smart Mobility Era"

With bios & abstracts + special sessions shown below.

BTR Sponsors + Organizers

BTR#4 is brought to you free of charge, & enjoys **sponsorship by UT Austin & UCLA, TRB, COTA & ARRB, and UNSW**.

Organizers: UCLA's Jiaqi Ma, Michigan's Neda Masoud, & Nebraska's Jason Hawkins + UT Austin's Kara Kockelman, UNSW's Elnaz Irannezhad, Tongji's Jia Hu, UT's Yantao Huang, UCLA's Yueshuai He, U Amirkabir's Mahmoud Mesbah, & U Sydney's Mohsen Ramezani.

Past BTR session recordings available at
https://bridgingtransport.org/instruction-for-presenters/archive-of-btr-presentations/

Professor Agachi Sumalee

Professor in Smart Cities at Chulalongkorn University, Agachi Sumalee was also a full Professor at The Hong Kong Polytechnic University & VP of King Mongkut's Institute of Technology in Ladkrabang. He is a Founding Editor of *Transportmetrica B: Transport Dynamics*, & his research interests include intelligent transportation systems, smart cities, & IoT applications in smart mobility, transport technology, policy & system optimization. He is a member of Bangkok's new station operations committee & Thailand's Transport Company, as well as chair of Thailand's sub-committee on common-ticket development. He led deployment of Thailand's GPS, Smart Bus Terminal & Smart Highway systems. He received the 2014 ASPIRE Prize for best scientist in Asia Pacific Economic Community under age 40. Please see https://scholar.google.com/citations?user=u_DjNeAAAAAJ&hl=en.

IoT, Analytics & Transport Systems in Smart Mobility Era

The internet of things (IoT) & Big Data are making it easier to collect, store, analyze, use, & disseminate multi-source data. The Smart Mobility platform capitalizes on these opportunities to improve how we collect data, analyze problems, & manage our multi-modal transportation system. This talk will cover data acquisition platform for smart mobility, with on-line & long-term analytics, & on-demand service applications in Thailand - ranging from safety management & demand prediction to highway operations. It will also highlight lessons learned for implementing advanced methods in real-world deployments, with a future outlook of the field.

Professor Lynette Cheah

Lynette Cheah is Assoc Professor of Engineering Systems at Singapore University of Technology & Design (SUTD). She directs the Sustainable Urban Mobility research lab, which develops data-driven approaches to reduce environmental impacts of passenger & freight transport. She is a member of Singapore's Public Transport Council & Associate Editor for the *Journal of Industrial Ecology*. She recently served as a Review Editor for the UN's IPCC Sixth Report, examining climate change mitigation approaches in transport. Her engineering degrees come from Northwestern, Stanford, & MIT. More details at https://esd.sutd.edu.sg/people/faculty/lynette-cheah.

Decarbonizing Road-based Freight Transport

Demand for global freight transport is expected to grow more than three times by 2050 & associated GHG emissions will increase faster than that from passenger transport. Road vehicles dominate global transport-related CO_2 emissions, & road freight is one of the harder-to-abate sectors. Cheah will review options for decarbonizing road freight & discuss challenges & opportunities. Beyond alternative fuel & vehicle technologies, there is a role for optimising system operations, as well as demand-side mitigation approaches. These encompass changing the way we use infrastructure & modifying behaviour to limit emissions.

Professor Charisma Choudhury

Charisma Choudhury is Chair in Behaviour Modelling & UKRI Future Leader Fellow at the Institute for Transport Studies University of Leeds (UoL), where she leads the Choice Modelling Research Group. She serves as the Deputy-Director of the interdisciplinary Choice Modelling Centre, & received her PhD from MIT. She has worked at Bangladesh University of Engineering & Technology, MIT, RAND Europe & Cambridge Systematics. Her current research focuses on travel behaviour modelling using emerging data sources, with focus on the Global South. She is an Honorary Guest-Professor at Beijing Jiaotong University & Alan Turing Institute Fellow. She is the current Vice-Chair of IATBR. More details can be found here: https://environment.leeds.ac.uk/transport/staff/924/dr-charisma-choudhury

Leveraging Passively Collected Data Sources for Travel Behaviour Modelling

Recent advances in data science & ubiquitous computing have led to the availability of a wide range of new inputs for travel behaviour modelling. These range from passively generated traces from mobile phones, smart phone apps etc. to physiological sensor data (e.g. skin conductance, heart rate recordings etc.) which provide insights regarding the traveller's state of mind. The presentation will focus on the promises offered by such emerging data sources & frameworks to use them. Case studies will include mode, route & destination choice modelling using passively generated mobility data as well as detailed models of driving & cycling behaviour where skin-conductance, heart rate, EEG & eye-tracking data have been used for improving the behavioural insights.

Professor Juan de Dios Ortúzar

Juan de Dios Ortúzar is Professor Emeritus in Transport & Logistics Engineering at Chile's Pontificia Universidad Católica. He is a pioneer in developing discrete choice models & their application to estimate willingness to pay for reducing externalities (accidents, noise & pollution). He has published ten books & over 200 articles in international journals & book chapters. He is co-author of Micro-GUTS simulation game, used in > 50 universities. He was Co-editor of *Transportation Research Part A* (2012-2020) & sits on boards of *Transport Policy, International Planning Studies, Transportation Letters, Research in Transport Economics, Travel Behavior & Society, & Multimodal Transportation*. More details here: https://www.ing.uc.cl/academicos-e-investigadores/juan-de-dios-ortuzar-salas/.

Role of Habit & Built Environment in Willingness to Commute by Bicycle

The bicycle should be an unbeatable mode in trips under 10 km, which dominate metro areas. Why are bike trips less than 10% of trips, especially when weather & terrain characteristics are mild? We look at this paradox using data from two studies in Latin American cities, involving habit measurements & latent variables, on top of the more usual level-of-service attributes.

BTR#4 - 2022 Special Sessions

Sustainable Development of Shared Mobility Markets As demand for convenient & comfortable mobility grows, on-demand ride-sourcing services are becoming preferred. This brings opportunities & challenges to the entire transport system, with pressure on ride-sourcing platforms for more efficient & effective responses. Several solutions will be explored to maintain sustainable development of shared mobility markets & urban transportation systems. Sponsored by TRB's ICT & Transportation Committee (ADB20).

Mobility of Care: Understanding the Role of Gender on Travel Behavior Travel associated with caregiving (like escorting children or others with limited mobility) is an important area of study. Research suggests women are far more likely to perform household-serving travel, it is primarily unpaid, & often considered easier to complete by car - making it difficult to switch to more sustainable modes. This panel tackles gender's role in mobility of care & its travel behaviour impacts. – Sponsored by TRB's Women & Gender in Transportation Committee (AME20).