

The 12th Annual Swedish Transport Research Conference - STRC 2023





Day 1 - Monday 16 October at KTH, D building (Lindstedtsvägen 3, Stockholm)

09:30-10:30		Registration and coffe	e in Ljusgården				
10:30-11:30	0:30-11:30 Welcome, Keynote, Roundtable discussion – Room: D2						
11:30-13:00		Lunch at Syster o Bror (Drottning I	(ristinas väg 24, Stockholm)				
13:00-14:30	Session 1a - Mobility data and design	Session 1b - Rail capacity and scheduling	Session 1c - Freight and electrification	Session 1d - Automation and perception			
	Chair: Erik Jenelius Room: D2	<u>Chair: Johan Högdahl</u> Room: D33	Chair: Ingrid Johansson Room: D34	Chair: Wilco Burghout Room: D35			
	Analysis of Route Sets and Attributes in Route Choice Estimation for Urban Traffic Management Using GPS-data (<i>Anna Danielsson, David Gundlegård and Clas Rydergren</i>)	Extension of timetable compression approach for assessing the capacity of stations — with turnarounds and alternative track assignment (<i>Elin Hellblom and Ingrid Johansson</i>)	Transport workers perceptions of the low-carbon transition: understanding distributional and fairness impacts of electrification, digitalization, and automation (<i>Jindan Gong, Maria Xylia, Eric Brandstedt, Claudia Strambo and Björn Nykvist</i>)	Investigation on Effects of Connected and Automated Vehicles (CAVs) on Road Network (<i>Erfan Aria</i>)			
	Identifying mobility styles for leisure travel: A cluster analysis based on a one- month travel survey (<i>Emma Strömblad</i>)	Last-minute Crew Rescheduling: Model and Heuristic Approach (<i>Liyun Yu, Carl Henrik Häll, Anders Peterson and Christiane Schmidt</i>)	Analysis of policy options to drive the transition to zero-emission road freight transport (<i>Hadi Farabi-Asl, Selma Brynolf and Maria Grahn</i>)	Modeling Perception Performance in Miroscopic Traffic Simulation (<i>Ivan Postigo, Clas Rydergren and Johan Olstam</i>)			
	Generating and Evaluating Route Choice Sets for Large Multimodal Public Transport Networks: A Case Study for Stockholm Region (<i>Anastasios Skoufas, Matej Cebecauer, Wilco Burghout and Erik Jenelius</i>)	Efficient use of European rail freight corridors: current status and potential enablers (Boban Djordjevic and Behzad Kornejad)	The cost impacts of EU ETS and ETD on shipping – the Swedish case (<i>Emma From, Karin Ek, Inge Vierth and Joar Lind</i>)	Autonomous Train: Ridership perspective (<i>Patrick E Urassa and Nils O.E Olsson</i>)			
	A Multiple Trip Vehicle Routing Approach to Ferry Service Network Design With Unused Corridors (<i>Michael Sederlin and Tomas Lidén</i>)	Capacity Evaluation of ERTMS/ETCS Hybrid Level 3 using Simulation Methods (<i>Daniel Knutsen, Nils O. E. Olsson and Jiali Fu</i>)	How to promote cycle logistics as a solution for sustainable urban logistics – Insights from a literature and interview study (<i>Annika Otto</i>)	A comprehensive review of viability and operability of dynamic charging solutions for autonomous electric vehicles (<i>Mohd Aiman Khan, Wilco Burghout, Oded Cats, Erik Jenelius and Matej Cebecauer</i>)			
14:30-15:00 Coffee (Ljusgården)							
	Session 2a - Mode choice and segregation	Session 2b - Rail infrastructure	Session 2c - Logistics electrification	Session 2d - Traffic estimation and simulation			
	Chair: Mohammad Maghrour Zefreh Room: D2	Chair: Oskar Fröidh Room: D33	Chair: Jonas Mårtensson Room: D34	Chair: Albania Nissan Room: D35			
15:00-16:30	Mode choice estimation on joint travel survey and mobile phone network data (Angelica Andersson, Ida Kristoffersson, Andrew Daly and Maria Börjesson)	Efficiency of the trackwork scheduling process in Sweden (<i>Daria Ivina</i>)	Impacts of Regional Electrified Logistics on Drivers' and Transport Planners' Work Environments (<i>Jana Sochor and Frances Sprei</i>)	Learning-based Traffic Density Reconstruction with Confidence (<i>Matthieu Barreau</i>)			
	Possibilities to Replace Short-haul Flights with Train Travel when Accounting for Rail Capacity (Francesco Bruno, Mohammad Maghrour Zefreh, Oskar Fröidh and Oded Cats)		Electrification of construction transports – challenges and opportunities (<i>Anna Fredriksson, Carl-Henrik Häll, Mats Janné, Mats Abrahamsson and Per Lindahl</i>)	High-Resolution Public Transport Mode Share Estimation from Mobile Network and Smart Card Data (<i>Matej Cebecauer, David Gundlegård, Erik Jenelius and Wilco Burghout</i>)			
	Association between transport access, income, and nativity segregation in Sweden: a mobility perspective using big geolocation data (<i>Yuan Liao, Jorge Gil, Sonia Yeh, Laura Alessandretti and Rafael H. M. Pereira</i>)	Assessing the Actual Cost of Railway Infrastructure Upgrades in Norway: A Comparative Analysis for Automatic Train Operations Projects (<i>Xavier Morin, Nils Olsson and Albert Lau</i>)	Exploring Sharing Charging Infrastructure for Electrifying Transport in Swedish Construction Industry (<i>Ru Chen, Lisa Govik and Shuai Li</i>)	Travel time and Reliability Impacts of Dynamic Bus Lane Operations along an Urban Corridor in a mid-sized Swedish city: A Traffic Micro-Simulation Analysis (Rihanna Gebrehiwot, Johan Olstam, Carl-Henrik Häll and Kinjal Bhattacharyya)			
	Everyday mobility and sustainable citizenship - a living lab approach (<i>Greger Henriksson</i> , <i>Jessica Berg and Malin Henriksson</i>)	Finding a better time and contract design for switch renewal (<i>Kristofer Odolinski, Arne Nissen and Abderrahman Ait Ali</i>)	What is the effect of charging infrastructure availability on electric truck adoption? An egg-chicken dynamics problem (<i>Zeinab Raoofi, Morteza Mahmoodi and Anna Pernestål Brenden</i>)				
18:00-19:30		Mingle and guided tour at Stockhol (Gasverkstorget 1,	. POT 35 PATA				
19:30		Dinner at Stockholm Public					



The 12th Annual Swedish Transport Research Conference - STRC 2023 Day 2 - Tuesday 17 October at KTH, D building (Lindstedtsvägen 3, Stockholm)



08:00-08:30		Arrival and coffee (Ljusgården)	
	Session 3a - PT planning and organization	Session 3b - Rail reliability	Session 3c - Fuel and energy	Session 3d - E-scooters
	Chair: Erik Jenelius Room: D2	Chair: Boban Djordjevic Room: D33	Chair: Lars E Olsson Room: D34	Chair: Lena Winslott Hiselius Room: D35
	Developing a planning tool for Swedish Bus Rapid Transit (BRT). A Delphi-approach (Jakob Allansson, Fredrik Pettersson-Löfstedt and Joel Hansson)	Impact of a lower passenger demand during the COVID-19 pandemic on the frequency of dwell time delays (<i>Ruben A. Kuipers and Carl-William Palmqvist</i>)	Future fuel mix for passenger cars in different socio-geographical contexts: Results from energy systems modeling (<i>Maria de Oliveira Laurin, Maria Grahn and Maria Taljegard</i>)	Attitudes and Perceptions of Shared E-Scooter Parking in Stockholm, Gothenburg and Malmö (<i>Boel Berg Wincent, Erik Jenelius and Wilco Burghout</i>)
3:30-10:00	The cost effects of age requirements of buses in competitive tendering (<i>Helene Lidestam, Carolina Camén and Panagiota Tsaxiri</i>)	Modelling the reliability of train transfers (<i>Nils Breyer, Alice Ingå and Anders Peterson</i>)	The impact of company cars on fuel choice and car characteristics (<i>Carl Berry and Maria Börjesson</i>)	Modeling e-scooter sharing demand and its influencing factors - A spatial machine learning approach (<i>Omkar Parishwad and Kun Gao</i>)
	Staggering school start times to cut traffic peaks – Why is it so hard? (<i>Eva-Lena Eriksson, Helene Lidestam and Lena Hiselius</i>)	Applying Simulation-assisted Machine Learning to Increase Yard Departure Predictability (<i>Niloofar Minbashi, Jiaxi Zhao, Tyler Dick and Markus Bohlin</i>)	Plug-in hybrid electric vehicle driving behavior: the differences in the share of electrified kilometers between countries (<i>Ahmet Mandev and Frances Sprei</i>)	The Dynamic Routing Problem for E-scooter Charging with Battery Swapping Strategies (<i>Jiaming Wu, Balázs Kulcsár and Xiaobo Qu</i>)
	Context matters: A study of management's and employees' perceptions of change context in traffic management (<i>Paulina Ekendahl, Izabelle Bäckström, Dag Naslund and Andreas Norrman</i>)	Rail Platform Allocation for Reliable Interchanges (<i>Ingrid Johansson and Anders Peterson</i>)	Stochastic modeling of quantity and price dynamics in the Swedish gasoline market (<i>Ritvana Rrukaj and Leif Sandal</i>)	
10:00-10:30		Coffee (Ljusgá	irden)	
	Session 4a - MaaS and integration	Session 4b - Rail disruptions	Session 4c - City logistics	Session 4d - EV:s and e-bikes
	Chair: Jiali Fu Room: D2	Chair: Hans Sipilä Room: D33	Chair: Behzad Kordnejad Room: D34	Chair: Sonia Yeh Room: D35
	Putting Users First? A Multi-sited Study of Public Transport Authorities' Approache to MaaS Implementation (<i>Jana Sochor, Dalia Mukhtar-Landgren and Mats Fred</i>)	s The Impacts of Weather on Railway Infrastructure in Sweden (<i>Michelle Ochsner, Carl-William Palmqvist and Rachel Fisher</i>)	Collaborative electric vehicle routing problems (Fangting Zhou, Ala Arvidsson, Jiaming Wu and Balázs Kulcsár)	A stochastic programming approach to develop the uncertainties in coupler transportation and distribution networks (<i>Arsalan Najafi and Kun Gao</i>)
):30-12:00	Tensions, Mobility Services and MaaS (<i>Hampus Berg Mårtensson, Mattias Höjer and Jonas Åkerman</i>)	Handling unplanned events with unattended train operation in a mainline railway system (<i>Emil Jansson, Nils O.E. Olsson and Oskar Fröidh</i>)	A city hubs system dynamics model from the perspective of logistics service providers and receivers (<i>Claudia Andruetto, Anna Pernestål and Jonas Mårtensson</i>)	A GPS-logging and survey-based analysis of charging infrastructure requirements - a Swedish case study of electric vehicles (<i>Yuki Kobayashi, Fi Johnsson and Maria Taljegård</i>)
	Organising seamless door-to-door journeys involving public transport (<i>Russell Cannon</i>)	The Risk of Train Delay as Imposed by Railway Incidents: A Case of the Swedish Railway Network (<i>Grace Mukunzi and Carl-William Palmqvist</i>)		A dollhouse with bi-directional charging: A behavioral study with users of V. (Érika Martins Silva Ramos, Jonas Andersson, Thomas Lindgren, Jens Hagrand Max Fransson)
	Mobility-as-a-Service (MaaS) adoption: one prescription for everyone? (Mohammad Maghrour Zefreh and Belal Edries)			
2:00-13:30		Lunch at Syster o Bror (Drottning K	ristinas väg 24, Stockholm)	
	Session 5a - Travel behavior and society Chair: Fariya Sharmeen Room: D3	Session 5b - Delay prediction	Session 5c - Traffic simulation and emissions	Session 5d - EV charging
	Chair: Fariya Sharmeen Room: D2	Chair: Niloofar Minbashi Room: D33	Chair: Albania Nissan Room: D34	Chair: Jan Persson Room: D35
	For the Price of Freedom - Transport behavior and possibility of change (<i>Gustav Lopez Svensson and Lena Winslott Hiselius</i>)	Evaluation Method of Data-Driven Train Delay Prediction Models (<i>Kah Yong Tiong, Zhenliang Ma and Carl-William Palmqvist</i>)	Microsimulation-based Traffic and Emission Impact Evaluation of Speed Geofencing in an Urban Environment (<i>Kinjal Bhattacharyya, Rihanna</i> <i>Gebrehiwot, Johan Olstam and Fredrik Johansson</i>)	Multi-agent-based fast charging infrastructure allocation for long-distance of the full-electric passenger car fleet in Sweden (Hamoun Pourroshanfekr Arabani, Mattias Ingelström, Mats Alaküla and Francisco J. Márquez-Fernández)
:30-15:00	Experiences of active and not so active commuters in Gothenburg: A case study (Edward Prichard and Katrin Lättman)	Application of deep learning methods towards delay prediction of trains, and comparison with existing model (<i>Pranjal Mandhaniya</i> , <i>Nils O. E. Olsson</i> , <i>Anders S. Larsen and Caroline Skjøren</i>)	DiGital twin for Emission MonItoring aNd predIction – Kista Case (<i>Peiling Wu, Zhenliang Ma and Anton Gustafsson</i>)	Public Megawatt Charging for Trucks in Europe - a Model Comparison (<i>Was Shoman, Patrick Plötz, Sonia Yeh, Frances Sprei and Daniel Speth</i>)
	Integrating PLS-SEM, NCA, and fsQCA to expand our analytical toolbox for deeper insights: A case of the aging population (<i>Alexandre Sukhov, Margareta Friman an Lars Olsson</i>)	Data-Driven Causality Discovery for Bus Arrival Delays in Urban Public Networks (<i>Qi</i> d Zhang, Zhenliang Ma and Erik Jenelius)	Capability of e-bikes to reduce carbon emissions from private cars (<i>Çağlar Tozluoğlu, Yuan Liao and Frances Sprei</i>)	Locating charging infrastructure for freight transport using multiday travel (Jiali Fu, Arne Nåbo and Harrison John Bhatti)
	Integration of public transport: A systematic literature review of the social impact of paratransit (<i>Brianne Nichols, Érika Martins Silva Ramos, Lars E. Olsson, Cecilia Jakobsson Bergstad and Margareta Friman</i>)	Detecting metro service disruptions and predicting their network wide domino effects using large scale vehicle location data (<i>Mohammad Maghrour Zefreh, Oskar Fröidh and Weizhi Michelle Teo</i>)	Energy reduction potential of a decreased parking supply at housing (Fredrik Johansson, Greger Henriksson, Jonas Åkerman and Pelle Envall)	Charging infrastructure needs and energy use for 100% BEV penetration: a study of the Västra Götaland (VG) region (Yuan Liao, Caglar Tozluoglu, Frances Sprei, Sonia Yeh and Swapnil Dhamal)