

ETC 2020

Posters

The posters will be accessible throughout the conference and delegates will be able to contact the poster presenter to arrange one-to-one discussion

Connected autonomous vehicle estimation

J Lambert, Department for Transport, UK

Short abstract: Analysts at the UK Department for Transport (DfT) are developing a quantitative model to explore the possible shift in number of trips made with autonomous vehicles instead of traditional modes.

Driving safety of heavy trucks based on various sensory data during freight transport

S Karkanis, M Savelonas, E Spyrou, University of Thessaly; D Koulocheris, C Vossou, Th.Tsiourva, National Technical University of Athens, GR

Short abstract: In this submission, we will present a system suitable for the evaluation of driving safety of tank vehicles. The system is consisted of a network of sensors, a data acquisition software and intelligent algorithms to evaluate the sensory data.

E-bikes and their capability to reduce car CO2 emissions

I Philips, J Anable, T Chatterton, Institute for Transport Studies, University of Leeds, UK

Short abstract: E-bikes could half the CO2 emissions of private car use in England and reduce economic stress of car dependence, particularly outside major urban centres. We show small area maps of where and how much carbon reduction capability exists.

Evaluation of drowsy driving risk using ocular measures and drivers' self-evaluation

S Soares, A Lobo, S Ferreira, A Couto, University of Porto, PT

Short abstract: This study uses ocular measures and drivers' self-assessment to evaluate the risk of drowsy driving. Drivers' characteristics are taking into account to help to improve the technologies used to detect/predict sleepiness, tailored for each driver.

Fixed lock and mobile lock in railway systems: analysis of capacity and property of delays

F Borghetti, R Maja, F Moraglia, F Pocetti, M Longo, R Mazzoncini, Politecnico di Milano, IT

Short abstract: This work presents the results of a comparative analysis between fixed block and mobile block spacing systems in terms of capacity and delay propagation in three ideal operating contexts: suburban, fast and mixed.

Importance of spatiotemporal evaluation of public transportation metrics

H Tuydes-Yaman, G Dalkic-Melek, Middle East Technical University; E Karagumus, Parabol Software Co., METU Technopolis, TR; C D Cottrill, University of Aberdeen, UK

Short abstract: This study presents a detailed case study evaluating spatial and temporal patterns of public transport use in Konya, Turkey. Smartcard data are used in a Geographic Information System (GIS) environment to assess hourly patterns of public transit use.

Italian use-case on sustainable mobility – Elba Sharing

M Curzi, D Vasari, Pluservice; S Gini, Memex, IT

Short abstract: Elba Sharing promotes shared trip to reduce the use of private vehicles in the island. The main objective is to incentivize sharing mobility among tourists and citizens by providing a new innovative algorithm and tools for ridesharing and carpooling.

Modelling the traffic impact of one of the first zero-emission street in the UK

W Lakache, S Nagaraju, G Ghafghazi, Transport for London, UK

Short abstract: In this conference, we will present the detailed results of the traffic modelling conducted to study the impacts of restricting access to only ultra-low emission vehicles, cyclists and pedestrian along a busy covered street in the heart of London.

Reallocation of demand for a carpool lane project

M Luzerne, O Troullioud, Cerema, FR

Short abstract: Cerema has developed an innovative methodology to take into account the changes in travel demand necessary to assess the effects of the implementation of a carpooling lane between the cities of Marseille and Aubagne.

Spatial and temporal analysis of Travel Time Variability of a bus public transport system in a megacity

S C Mangones Matos, S F Mesa Giraldo, A L Calvo Bojacá, A Gómez Mosquera, A M Morales Avella, J D Otero Niño, Universidad Nacional de Colombia, CO

Short abstract: Spatial and temporal analysis of the Integrated Public Transport System in Bogotá, Colombia using time series and spatial statistics approach.

Subjective beliefs regarding waiting times in public transport networks in the Netherlands, Greece and Portugal

S Shelat, N van Oort, E Mantouka, M Monteiro, I Stroumpou, O Cats, H van Lint, Delft University of Technology, NL

Short abstract: A stated preference experiment is used to quantify travellers' attitudes and perceptions — subjective beliefs — regarding waiting times in public transport networks in three European countries. Results and potential policy implications are presented.

The effect of maintenance activities on Swedish railways operational reliability

D Ivina, C-W Palmqvist, L Winslott Hiselius, Lund University, SE; N O E Olsson, Norwegian University of Science and Technology, NO

Short abstract: The paper addresses issues of train delays occurrence in Sweden in relation to maintenance activities.

The first Italian real use-case on Account Based Ticketing

D Vasari, P Bassotti, R Stefanelli, PLUSERVICE, IT

Short abstract: The project includes a highly innovative ticketing system. An Account Based Ticketing (ABT) system allows user to buy from existing sales channels and to travel over different transport modes using ABT “portable objects”.

The socioeconomic value of the Port of Antwerp for its hinterland

H Havermaet, J Beckers, T Vanelslander, A Verhetsel, University of Antwerp, BE

Short abstract: The main goal of this study is to estimate the socioeconomic impact of the Port of Antwerp. We study employment and estimate the city taxes that employees pay in their community. We use a descriptive analysis.

The use of Big Data as a mobility asset: transforming the urban space of Lugano's waterfront

F Parolotto, F Arcuri, L Bocchimuzzi, MIC Mobility in Chain srl, IT

Short abstract: The radical changes that big data applied to mobility will bring to the urban context and beyond will be one of the real game changers with regards to the shape and design of the city of the future.

Transforming the landscape of mobility - a vision for the future of mobility of the Pearl River Delta

M Franzoi, F Parolotto, MIC Mobility in Chain srl, IT

Short abstract: The relentless increase in motorized vehicles worldwide, in particular in populous developing countries, could lead to the biggest wave of motorization ever witnessed. How can we leverage new technologies to prevent this?

TRIMODE, the new integrated transport model for Europe

D Fiorello, Davide, I Williams, A Martino, K Noekel, P Capros, P Siskos, I Charalampidis, M Garratt, TRT Trasporti e Territorio, IT

Short abstract: The TRIMODE integrated model for Europe combines the simulation of transport, economy and energy systems for the assessment of major transport infrastructure projects and policies with a very detailed spatial resolution.

Ultra-high speed ground connection between airports

T Boitier, TransPod Inc., CA

Short abstract: This abstract presents a study on connecting distant airports with ultra-high-speed ground means of transport, to operate them as giant hubs, removing short-haul air connections and allowing route optimization to reduce air traffic and CO2 emissions.

Utilising chatbot technology to provide personalised travel advice promoting commuter wellbeing

M Lovric, B Anvari, J Krol, P Jones, N Tyler, H Wurdemann, University College London, UK

Short abstract: Commuter's preferences, and mental state are collected before/during/after journeys using chatbot technology. Processed data are then merged with available mobility services resulting in personalised travel advice improving users' wellbeing.

Well to Wheel comparison of light-duty vehicles: a scenario analysis of New Zealand and Australia

M Sheng, A Viswanath Sreenivasan, B Sharp, B Du, The University of Auckland, NZ

Short abstract: This paper presents a comparative study among different light-duty vehicles using Well-To-Wheel analysis, to identify the correct type of EVs that could benefit the environment based on the electricity mix of a particular country.

Why should we choose hyperloop, rail, pipe instead of plane?

A Aniszewicz, Instytut Kolejnictwa, PL

Short abstract: Traveling by rail in a pipe (hyperloop) can be not only ecological but also safe. Safe because it is isolated from the environment and dedicated to the traveler. It can be dedicated specifically to every traveler at his request.