Motivation and Scope

Modern cities are complex socio-technical entities that exist to provide services effectively to their residents and visitors. In the Transportation context, People need to travel quickly and conveniently between locations at different scales, ranging from a trip of a few blocks to a journey across town or further. At the same time, Goods need to be timely delivered considering the needs of both the users and the businesses.

The continuous growth of population and the expansion of urban centres bring us new challenges. With limited capacity of the current infrastructure, technologies are often seen as the solutions to the growing travel demand. Examples of such technologies are dynamically introduced fares and application of artificial intelligence.

For this special issue, our assumption is that radical changes will be introduced in the transport systems. These changes will transform the current transport modes and a higher level of autonomy will be used compared to present, e.g., with the adoption of connected autonomous vehicles and improved signalling. While attempting to reduce congestion, technologies have already showed their positive impact on making streets cleaner and safer. Nevertheless, living in a profit-driven society, these technologies will eventually attract private investment; however, what is the most adequate funding scheme for a technology-driven transport system? Who will cover the infrastructure installation and maintenance costs for electric vehicles and connected and autonomous cars? Furthermore, the future relies on digital data and digital connectivity, highlighting the need to protect the privacy of the public.

In this special issue we are interested in contributions discussing how can we safeguard the society and ensure a high quality of life for all in a diverse and technology-dependent transport system. In particular, we are interested in the following themes:
● designing an inclusive transport system, e.g. engaging the public into the design of technological solutions;
● ensuring that sustainable technological solutions are integrated into future transport systems, e.g. modernising regulatory frameworks, societal needs, strategic transport planning (we can say smart cities but we need to define the term, as it varies across disciplines);
● the use of technologies for transport studies, environmental assessment and resilience in artificial intelligence.

LIST OF TOPICS: Topics of interest to this special issue include, but are not limited to:

Suitable topics for this special issue include, but are not limited to:

● Emerging technologies that reduce congestion, and make streets safer and cleaner, e.g. dynamic traffic management and training of drivers.
● Connected and autonomous vehicles technology and services for the mobility of people and goods in mixed-mode environments that improves efficiency, safety and cleanly.
● Transport infrastructure challenges (both physical and digital), ownership, accessibility and policy making.
● Technologies and the promotion of sustainable mobility, such as eco efficient solutions for traffic management.
● Mobility-as-a-Service and the societal impact, in particular, related to the sustainable development goals (SDGs) set by the United Nations target by 2030.
● Privacy and Ethics issues in the digital and multimodal transportation service economy.
● Gamification techniques to improve citizens’ engagement and change traveler’s behavior towards sustainability.
● Regulations for autonomous vehicles such as shuttle buses, in particular concerning safety, transportation capacity and traffic flow, both in public and private scenarios.
● Autonomous mobility of vulnerable people (e.g. children, elderly, pregnant women, citizens without driving licensing) in large cities as well as in rural areas.
● Public-private partnerships that enables new venture creation for social impact over the whole value chain of multi-modal transport systems.
● Machine learning for informed decisions made by the planners and regulators.

PAPER SUBMISSION GUIDELINES

Paper submission should conform to the information for authors available at https://mc.manuscriptcentral.com/t-its.
IMPORTANT DATES

The tentative schedule for this Special Issue is as follows:

First submission deadline: April 3rd, 2020
Notification of first decision: July 3rd, 2020
First revision submission deadline: September 3rd, 2020
Notification of final decision: January 3rd, 2021
Final manuscript (camera ready) submission deadline: February 3rd, 2021
Issue of Publication: April 3th, 2021

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**Philip Feldman** is ASRC Federal's AI/ML Futurist. His most recent work has been to develop reliable, resilient neural network architectures using evolutionary algorithms combined with model ensembles. His PhD work at the University of Maryland explores how to detect user belief-based
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SUBMISSION AND REVIEW OF PAPERS

Submitted papers should be original and not be under consideration elsewhere for publication. The authors should follow the journal guidelines, regarding the manuscript content and its format when preparing their manuscripts. All papers will be reviewed by at least three independent reviewers for their suitability in terms of technical novelty, scientific rigor, scope, and relevance to this special issue.