



The 21st IEEE International Conference on Intelligent Transportation Systems

November 4-7, 2018

Maui, Hawaii, USA

Special Session

Intelligent Transportation Systems and Disadvantaged Populations: Technology Adoption Challenges and Bridging the Digital Divide

Understanding the factors that foster and support the implementation of Intelligent Transportation Systems (ITS) for disadvantaged populations in urban, suburban and rural settings can facilitate the development of strategies and policies that will optimize comprehensive approaches to ITS implementation in the future. For example, smart and connected for-hire-vehicle systems, such as Uber or Lyft, operate more efficiently in densely populated cities, but may not serve the needs of people living in scarcely populated areas. In a similar vein, ITS should be all-inclusive and serve all populations living in urban, suburban, rural and remote areas exposed to a wide variety of natural, man-made, and technological hazards and threats. Connected and autonomous car technologies also have different challenges and implications for different built environments and age groups. The efficient use of ITS becomes even more critical for people living in both urban, suburban, rural and remote areas exposed to a wide variety of natural, man-made, and technological hazards and threats. This special session will focus on the technology adoption challenges experienced by at-risk disadvantaged populations (e.g., elderly, low-income, disabled, limited mobility, and non-English speaking populations) and identify research needs with respect to these challenges to bridge the digital divide. These technologies include currently available ITS technologies (e.g., variable message signs, adaptive traffic signals, in-car systems, smartphone applications for ride-sharing and traffic information) as well as emerging technologies (e.g., connected and automated vehicles). A particular focus of the session will be the relationship between ITS and the built environment (e.g., varying urban densities and infrastructure networks such as electricity and communication systems), and sociotechnical data analytics approaches (e.g., big data and artificial intelligence).

The special session welcomes papers in the field of ITS and vehicle technologies related to technology adoption for the disadvantaged (e.g. aging population) and digital divide challenges. A special focus is on the role of these technologies on risk perception and the management of hazards and threats.

Important Dates

Special Session Code: **SS_DISA**

Submission Deadline: April 15, 2018

Acceptance Decision: July 02, 2018

Final Papers Submission Deadline: September 09, 2018

Organizers

Anil Yazici, Civil Engineering, Stony Brook University, NY, USA (Anil.Yazici@stonybrook.edu)

Eren Erman Ozguven, Civil & Env. Eng., FAMU-FSU College of Engineering, FL, USA (eozen@fsu.edu)

David W. Eby, University of Michigan Transportation Research Institute, MI, USA (eby@umich.edu)

Karl Kim, Urban and Regional Planning, University of Hawaii, HI, USA (karlk@hawaii.edu)

Reza Arghandeh, Electrical & Computer Eng., FAMU-FSU College of Eng., FL, USA (reza@caps.fsu.edu)

➔ For submission and paper formatting instructions, please visit <https://www.ieee-itsc2018.org/information-for-authors.html>

➔ For more information about the conference, venue, and other details, please visit <https://www.ieee-itsc2018.org/>