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

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