Urban Mobility Efficiency

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As outlined by the Transportation Research Board in their "Critical Issues in Transportation," urban mobility is plagued by several major issues, including system reliability and resilience; avoidable safety impacts; unsustainable impacts on energy, climate and the environment; inadequate funding sources; and lagging innovation and research. Another set of transportation issues are brought on by Japan's, and many other countries', aging society with fewer children where accessibility for elderly and disabled persons is a major concern. Many cities in Japan are aiming to become "compact cities," which are environmentally friendly, economically efficient, and equitably accessible for all. Virtual mobility provided by ICTs is becoming more important for our daily lives and may provide solutions for many transportation issues. This session discusses the relationship between a future vision of urban structure and human activity-travel behavior and quality of life in the ICT age.

Our first speaker, Dr. Myra Blanco of Virginia Tech's Transportation Institute, will discuss the impact of autonomous vehicles on equity and mobility. The second speaker, Dr. Kay Kitazawa of the Rebuild Japan Initiative Foundation, will illustrate the socio-economic context of future cities and mobility. The third speaker, Dr. Giancarlos Troncoso Parady of the University of Tokyo, will discuss the relationship among social networks, the built environment, and travel behavior. Our final speaker, Dr. Joan Walker of University of California at Berkeley, will discuss the travel impacts of new technologies and services.

Specific questions to be addressed are: How are ICTs changing the face of transportation in the wake of increased mobile device usage to acquire transportation services and cars that communicate with each other and the roadway? How can compact and walkable cities contribute to enhancing activity participation of mobility handicapped persons (the elderly, disabled persons, baby-stroller users, etc.)? How will travel behavior of young people who are not interested in automobiles but addicted to smartphones change in the future? How will social networks created in cyberspace change neighborhood community in physical space? How will ICTs change human attitudes and preferences toward compact and walkable cities? Similarities and differences between the US and Japan will be discussed.