Roadway Safety Showcase: Safety Innovations for Today and Tomorrow

Thursday, May 21, 2015
8:00 a.m. – 3:30 p.m.

Room 3
Saint Paul RiverCentre
St. Paul, Minnesota

8:00 Registration and Continental Breakfast

8:30 Welcome
Max Donath, Director, Roadway Safety Institute,

8:35 Improving Road Safety in Tribal Nations
Moderator: Greg Winfree, Assistant Secretary, Office of Research and Technology, US Department of Transportation

Understanding Transportation Safety Risks on Tribal Lands: A Collaborative Research Project with American Indian Communities
Kathy Quick and Guillermo Narvaez, Humphrey School of Public Affairs, University of Minnesota

Using GIS to Improve Tribal Traffic Safety
Tom Horan, Claremont Graduate University

10:00 Break

10:15 Rapid Fire: Technology and Roadway Innovations
Moderator: Sue Groth, Minnesota Department of Transportation

Development and Demonstration of Merge Assist System using Connected Vehicle Technology
Imran Hayee, Department of Electrical Engineering, University of Minnesota Duluth

Implementation of a V2I Highway Safety System and Connected Vehicle Testbed
John Hourdos, Minnesota Traffic Observatory and the Department of Civil, Environmental, and Geo-Engineering, University of Minnesota

A Positioning and Mapping Methodology Using Bluetooth and Smartphone Technologies to Support Situation Awareness and Wayfinding for the Visually Impaired
Chen-Fu Liao, Department of Civil, Environmental, and Geo-Engineering, University of Minnesota
Novel Collision Avoidance System for Bicycles  
*Rajesh Rajamani*, Department of Mechanical Engineering, University of Minnesota

Directing Rumble Strips for Reducing Wrong-Way Driving Freeway Entries  
*Huaguo Zhou*, Department of Civil Engineering, Auburn University

Developing and Validating a Model of Left Turn Crashes to Support Safer Design and Operations  
*Gary Davis*, Department of Civil, Environmental, and Geo- Engineering, University of Minnesota

11:30  Lunch

12:30  **Rapid Fire: Safety Policy and Human Factors**  
Moderator: Capt. Éric Roeske, Minnesota State Patrol

Descriptive Comparison of the Medical Conditions Reported on the Official Commercial Driver's License Exam  
*Stephen Burks*, Division of Social Sciences, University of Minnesota Morris

Identifying and Reconciling Stakeholder Perspectives in Deploying Automated Speed Enforcement  
*Frank Douma*, Humphrey School of Public Affairs, University of Minnesota

Alcohol-Related Hot Spot Analysis and Prediction  
*William Schneider*, Department of Civil Engineering, University of Akron

Safety in Numbers? Accessibility, Traffic, and Safety of Non-Motorized Travelers  
*Andrew Owen*, Accessibility Observatory and Department of Civil, Environmental, and Geo- Engineering, University of Minnesota

Assessing Factors Affecting Policy Leadership in Adopting Road Safety Countermeasures  
*Lee Munnich*, Humphrey School of Public Affairs, University of Minnesota

Performance Measures for Bicycle and Pedestrian Safety: Methodologies for Monitoring Traffic Volumes and Assessing Exposure to Risk  
*Greg Lindsey*, Humphrey School of Public Affairs, University of Minnesota

Older Driver Support System (ODSS) Usability and Design Investigation  
*Nichole Morris*, Department of Mechanical Engineering, University of Minnesota

1:45  Break

2:00  **Improving Railroad Grade Crossing Safety at the Regional Level**  
Moderator: Michael Pretel, Minnesota Department of Transportation

Accident Prediction Models using Macro and Micro Scale Analysis  
*Ray Benekohol*, Department of Civil and Environmental Engineering, University of Illinois at Urbana-Champaign
Reliable Planning and Coordination of Emergency Responses to Railroad Incidents
Yanfeng Ouyang, Department of Civil and Environmental Engineering, University of Illinois at Urbana-Champaign

Real-time Prediction and Monitoring of Potential Conflicts at Grade Crossings
Daniel Work, Department of Civil and Environmental Engineering, University of Illinois at Urbana-Champaign

3:15 Closing Comments
Max Donath, Roadway Safety Institute

3:30 Adjourn