Global Symposium on Connected Vehicles and Infrastructure

April 21-23, 2014

Energy and Environmental Implications of Automated Transportation

April 23-24, 2014

Horace H. Rackham Building
915 East Washington Street / Ann Arbor, Michigan
Welcome to the University of Michigan Transportation Research Institute’s 2014 Global Symposium on Connected Vehicles and Infrastructure and welcome to Ann Arbor, home of the largest connected vehicle test-bed in the world. Since Safety Pilot Model Deployment (SPMD) was launched twenty months ago, our participants have traveled over 22 million miles and recorded more than 30 billion basic safety messages.

The Michigan Mobility Transformation Center (MTC) is rapidly taking shape and will focus on collaborative R&D, driving the deployment of connected and automated mobility systems.

SPMD is emblematic of the work being done at UMTRI today and to come in the future. It is an example of our leadership in the area of safety and sustainability research, our multi-disciplinary approach to research, and expertise in embedding research into real-world deployment through unique partnerships cultivated throughout the transportation industry, as well as with state and local governments.

This year’s symposium brings together leading industry, academic and government experts to discuss and strategize how connected technology is transforming transportation around the world. I look forward to connecting with each of you during this event.

Peter Sweatman
Director, University of Michigan Transportation Research Institute
Director, Michigan Mobility Transformation Center

Connecting vehicles and infrastructure along with sensing, robotics, massive data processing and other advanced information technologies will enable the increasing automation of transportation systems throughout the world. Although these changes will be driven primarily by safety needs and the vast new troves of customer value to be unlocked, the resulting mobility transformation will also have profound implications for transportation energy use and related environmental impacts such as greenhouse gas emissions. To make the most of these opportunities, research is needed to understand the implications of this technological disruption for all of the determinants of transportation energy use. Topics include the operational optimizations that will be ever more possible in the near term, the ways that connectivity and automation can overcome barriers to advanced propulsion options such as electricity and hydrogen, and the dramatic efficiency gains that will become possible as crash-free travel frees engineers and designers from the mass and size constraints of automobiles as we know them today. Even greater are the ramifications of new ownership models such as shared autonomous vehicles and the ways in which intelligent mobility systems will influence mode choice and land use.

Understanding this range of possibilities, exploring how they might unfold and identifying the points of leverage to address energy and environmental concerns presents a new set of challenges for the transportation and energy research community. We look forward to your joining us at this unique workshop where we can jointly chart a course for the research needed to navigate the rapid currents of mobility transformation in the years ahead.

John DeCicco
Research Professor
University of Michigan Energy Institute
Global Symposium on Connected Vehicles and Infrastructure

April 21-23, 2014 • Ann Arbor, Michigan

MONDAY, APRIL 21, 2014

10:00 am – 12:00 pm
REGISTRATION/Lobby, 1st Floor

11:00 am – 12:00 pm
LUNCH/Assembly Hall, 4th Floor

12:00 pm – 12:30 pm
WELCOME/Amphitheatre, 4th Floor
• Peter Sweatman, Director, University of Michigan Transportation Research Institute and Director, Michigan Mobility Transformation Center
• S. Jack Hu, Interim Vice President for Research, University of Michigan

12:30 pm – 1:30 pm
OPENING
• Daniel Smith, Senior Associate Administrator for Vehicle Safety, National Highway Traffic Safety Administration, U.S. Department of Transportation
• Kirk Steudle, Director, Michigan Department of Transportation

1:30 pm – 3:00 pm
SESSION I: V2X POLICY – ISSUES AND STRATEGY
• Scott Belcher, President and CEO, Intelligent Transportation Society of America
• Andrew Brown, Vice President and Chief Technologist, Delphi
• Kenneth Leonard, Director, ITS Joint Program Office, U.S. Department of Transportation
• Kirk Steudle, Director, Michigan Department of Transportation
MODERATOR: John Maddox, Director of Collaborative Program Strategies University of Michigan Transportation Research Institute/Texas A&M Transportation Institute

3:00 pm – 3:30 pm
BREAK/Assembly Hall, 4th Floor

3:30 pm – 5:00 pm
SESSION II: V2X POLICY – NEXT STEPS: SECURITY & PRIVACY
Amphitheater, 4th Floor
• Tom Schaffnit, President, A2 Technology Management
• Walt Fehr, Program Manager, ITS Joint Program Office, U. S. Department of Transportation
• Thorsten Hehn, Senior Communications and Security Engineer, Volkswagen of America
• Andrë Weimerskirch, Associate Research Scientist, University of Michigan Transportation Research Institute
MODERATOR: Andrew Smart, Director of Society Programs and Industry Relations, Society of Automotive Engineers

TUESDAY, APRIL 22, 2014

7:30 am – 8:30 am
REGISTRATION/West Hallway, 4th Floor
BREAKFAST/Assembly Hall, 4th Floor

8:30 am - 10:00 am
SESSION 1: V2V ADVANCEMENTS IN LAST 12 MONTHS/Amphitheatre, 4th Floor
• Francine Romine, Director, Marketing and Communications, University of Michigan Transportation Research Institute
• Michael Shulman, Technical Leader, Ford Active Safety
• James Sayer, Research Scientist, University of Michigan Transportation Research Institute
• Kevin Gay, Vehicle Automation Team Lead, ITS Joint Program Office, U. S. Department of Transportation
MODERATOR: Richard Wallace, Director, Transportation Systems Analysis, Center for Automotive Research

10:00 am – 10:30 am
BREAK/Assembly Hall, 4th Floor

10:30 am – 12:00 pm
SESSION II: V2V NEXT STEPS/Amphitheatre, 4th Floor
• Timothy Johnson, Director, Crash Avoidance and Electronic Controls Research National Highway Traffic Safety Administration, U.S. Department of Transportation
• Rozalina Ebrahimian, Active Safety Engineering, General Motors
• James Sayer, Research Scientist, University of Michigan Transportation Research Institute
• John Maddox, Director of Collaborative Program Strategies, University of Michigan Transportation Research Institute/Texas A&M Transportation Institute
MODERATOR: Scott Belcher, President and CEO, Intelligent Transportation Society of America
12:00 pm – 1:30 pm
LUNCH/Ballroom, Michigan League, 2nd Floor
SPEAKER: Toni Antonucci, Associate Vice President for Research, Social Sciences and Humanities, University of Michigan

1:30 pm – 3:00 pm
SESSION III: CONNECTED + AUTOMATED/Amphitheatre, 4th Floor
- John Capp, Director, Active Safety Electronics, General Motors
- Christian Schumacher, ADAS Business Unit, NAFTA, Continental Automotive Systems, Inc.
- Huei Peng, Professor of Engineering, University of Michigan
- Kay Stepper, Regional Business Unit Leader-Driver Assistance, Bosch
MODERATOR: Timothy Johnson, Director, Crash Avoidance and Electronic Controls Research, National Highway Traffic Safety Administration, U.S. Department of Transportation

3:00 – 3:30 pm
BREAK/Assembly Hall, 4th Floor

3:30 pm – 5:00 pm
SESSION IV: INFRASTRUCTURE/Amphitheatre, 4th Floor
- David St. Amant, President and Chief Operating Officer, Econolite
- Matt Smith, Program Manager, Intelligent Transportation Systems, Michigan Department of Transportation
- Jim Wright, Program Manager, American Association of State Highway and Transportation Officials (AASHTO)
- Andreas Mai, Director, Product Management, CISCO
- André Weimerskirch, Associate Research Scientist, University of Michigan Transportation Research Institute
MODERATOR: Ed Seymour, Agency Director, Texas A&M Transportation Institute

5:00 pm – 6:00 pm
NETWORKING RECEPTION/Museum of Art – Forum Room/525 South State Street

6:00 pm – 9:00 pm
DINNER/Museum of Art - Apse/525 South State Street
Transportation from Rackham to the Museum will be available beginning at 5:00 pm, from the front of the building. Transportation back to Rackham from the Museum will also be available, beginning at 9:00 pm.

WEDNESDAY, APRIL 23, 2014

7:30 am – 8:30 am
REGISTRATION/West Hallway, 4th Floor
BREAKFAST/Assembly Hall, 4th Floor

8:30 am – 10:00 am
SESSION I: ENERGY & MOBILITY/Amphitheatre, 4th Floor
- Reuben Sarkar, Deputy Assistant Secretary for Transportation, U.S. Department of Energy
- Jean M. Redfield, President and CEO, NextEnergy
- Chris Gearhart, Center Director, Transportation and Hydrogen Systems Center, National Renewable Energy Laboratory
- Marcia Pincus, Program Manager, ITS Joint Program Office, U.S. Department of Transportation
MODERATOR: John DeCicco, Research Professor, University of Michigan Energy Institute

10:00 am – 10:30 am
BREAK/Assembly Hall, 4th Floor

10:30 am – 12:00 pm
SESSION II: STRATEGY & OUTLOOK/Amphitheatre, 4th Floor
- Gregory Winfree, Assistant Secretary for Research and Technology, U.S. Department of Transportation
- Nigel Francis, Senior Vice President, Automotive Industry Office, Michigan Economic Development Corporation (MEDC)
- Hiroyuki Watanabe, President, Intelligent Transportation Systems – Japan
- Wolfgang Höfs, Head of Sector, Strategic Planning and Communication, European Commission
- Evangelos Mitsakis, Senior Researcher, Centre for Research and Technology Hellas – Hellenic Institute of Transport (CERTH/HIT), ERTICO
MODERATOR: Peter Sweatman, Director, University of Michigan Transportation Research Institute and Director, Michigan Mobility Transformation Center

12:00 pm – 12:10 pm
2014 ITS WORLD CONGRESS
- Jim Barbaresso, Vice President, Intelligent Transportation Systems, HTNB

12:10 pm – 12:30 pm
CLOSING
- Peter Sweatman, Director, University of Michigan Transportation Research Institute and Director, Michigan Mobility Transformation Center
ENERGY AND ENVIRONMENTAL IMPLICATIONS OF AUTOMATED TRANSPORTATION

With Support from the U.S. Department of Energy
Co-Sponsored by the University of Michigan Energy Institute and Transportation Research Board (TRB) Committee on Energy

WEDNESDAY, APRIL 23, 2014

11:30 am – 1:30 pm
REGISTRATION/West Hallway, 4th Floor
LUNCH/Assembly Hall, 4th Floor

1:30 pm – 1:45 pm
WELCOME AND OPENING REMARKS/West Conference Room, 4th Floor
• John DeCicco, University of Michigan Energy Institute
• Austin Brown, National Renewable Energy Laboratory

1:45 pm – 3:15 pm
E1: IMPACTS OF CONNECTIVITY AND AUTOMATION ON VEHICLE OPERATIONS
MODERATOR: Jeff Gonder, National Renewable Energy Laboratory
• Matt Barth, UC Riverside
• Ben Saltsman, Eaton
• John Woodroffe, UMTRI

3:10 pm – 3:30 pm
BREAK/East Conference Room, 4th Floor

3:30 pm – 5:00 pm
E2: IMPLICATIONS FOR ADVANCED VEHICLE ENERGY TECHNOLOGIES/West Conference Room, 4th Floor
MODERATOR: Jacob Ward, U. S. Department of Energy
• Daniel Bartz, Booz Allen Hamilton
• Jeremy Michalek, Carnegie Mellon University
• Anna Stefanopoulou, University of Michigan

5:30 pm – 8:00 pm
RECEPTION AND DINNER/Henderson Room, Michigan League, 3rd Floor

THURSDAY, APRIL 24, 2014

7:30 am – 8:30 am
REGISTRATION/West Hallway, 4th Floor
BREAKFAST/Assembly Hall, 4th Floor

8:30 am – 10:00 am
E3: TRAVEL DEMAND AND LAND USE IMPACTS OF VEHICLE AUTOMATION/Assembly Hall, 4th Floor
MODERATOR: Don MacKenzie, University of Washington
• Ken Laberteaux, Toyota
• Jeff LaMondia, Auburn University
• Jonathan Levine, University of Michigan

10:00 am – 10:15 am
BREAK/West Conference Room, 4th Floor

10:15 am – 12:00 pm
E4: RESEARCH NEEDS SYNTHESIS/Assembly Hall, 4th Floor
MODERATOR: Paul Leiby, Oak Ridge National Laboratory
• Levi Tilleman, U. S. Department of Energy
• Lisa Snapp, U. S. Environmental Protection Agency
• Marcia Pincus, U. S. Department of Transportation
• Chris Gearhart, NREL

12:00 pm – 1:30 pm
CLOSING REMARKS AND LUNCH/Assembly Hall, 4th Floor
Symposium Planning Committee
Monica Davis
John DeCicco
John Maddox
Jane Ritter
Francine Romine
Jim Sayer
Peter Sweatman
André Weimerskirch

2014 Global Symposium on Connected Vehicles
and Infrastructure brought to you by:
University of Michigan Transportation Research Institute (UMTRI)

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