FINAL PROGRAM

AND EXHIBITOR DIRECTORY

21ST WORLD CONGRESS

DETROIT 2014

INTELLIGENT TRANSPORT SYSTEMS

Reinventing Transportation in our Connected World

September 7-11, 2014 | Cobo Center | Detroit, Michigan, USA

Hosted by:

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To learn more, join us at Booth #1614, at the Technology Showcase on Belle Isle, or visit econolitegroup.com!

21ST WORLD CONGRESS
DETROIT 2014
INTELLIGENT TRANSPORT SYSTEMS

Contents

Welcome

On behalf of the 2014 ITS World Congress Organizing Committee, I invite you to Detroit on September 7-11, 2014. Our theme is "Reinventing Transportation in our Connected World." We have a great story to tell — a story of reinvention of our vehicles and infrastructure, but also of our iconic city — the Motor City — and its core industry.

We will tell our story in a very compelling way — through a dynamic, interactive program, exciting exhibits, and the largest set of technology demonstrations in the 21 year history of the World Congress. Our goal is to immerse attendees in the future of transportation technology at the newly renovated Cobo Center, on the streets of Detroit, and on beautiful Belle Isle.

Our technical program includes more than 250 sessions, with an all-star line-up of keynote speakers, a Chief Technology Officer Summit, and a High-Level Policy Roundtable. Cobo Center will feature more than 300,000 square feet of exhibits, including our Youth Connections Pavilion and indoor track for youth challenges, the Entrepreneurial Village, and a next-generation Transportation Operations Center. Of course, no World Congress would be complete without social events and activities, and we offer plenty of opportunities to network with your colleagues, make new business acquaintances, and have some fun.

While Detroit is most often associated with cars and the auto industry, it is also a city with a unique history of culture, music, and sports. We offer world-class museums, performing arts, and some of the best professional sports teams on the globe. The region is home to hundreds of beautiful golf courses, wonderful parks, and, of course, the Great Lakes. If sailing, fishing, boating, or golf are your passion, then Detroit is your place.

Detroit is in a unique position to be hosting the World Congress at such an important time in the transportation industry, but also in the City's rebirth. We are on the cusp of a transformation, where technology offers realistic solutions to our global mobility, safety, and environmental challenges. Detroit is at the heart of this transformation. The Motor City is made of both grit and silicon, where industry and technology are coming together to forge the next generation of transportation systems.

I invite you to participate in the "reinvention" and look forward to seeing you in Detroit in September!

James Barbaresso
2014 Organizing Committee Chair
Vice President, Intelligent Transportation Systems
HNTB Corporation

ITS America is thrilled to host the 2014 ITS World Congress in America's original Motor City and to welcome thousands of the world's leading transportation technology leaders to Detroit, Michigan.

We live in an increasingly connected world, with technology changing not only the way we live, work, and travel but also how businesses compete in the global economy. From connected and autonomous vehicles to advanced traffic management systems and real-time traffic, transit, and parking apps, this year's World Congress will showcase technologies that are reinventing mobility, fueling smarter cities, and redefining the Intelligent Transportation ecosystem to transform the way we move.

ITS America's Annual Meeting & Exposition will take place in conjunction with the ITS World Congress and provide a distinct series of events for the Society's members that focus on exploring solutions for easing traffic congestion, financing and improving the nation's transportation system, advancing life-saving vehicle technologies, and much more. The Annual Meeting track also features a host of committee forum meetings, a Leadership Circle dinner and the Best of ITS Awards, State Chapter Awards, and Student Essay Competition winners.

Have a great week, and thank you for attending the 2014 ITS World Congress.

Scott Belcher
President and CEO, ITS America

On behalf of ERTICO-ITS Europe and its Partners, I am delighted to welcome you to the 21rst ITS World Congress in Detroit.

Detroit is well known as the Motor City and therefore the perfect place to host this ITS World Congress. The hosts promise a fantastic exhibition at the famous Cobo Center, many ground-breaking interactive demonstrations, an outstanding programme, as well as numerous networking events, with an expected 10,000 transport and technology leaders from around the world.

Today's challenge is to deploy ITS solutions effectively in a coordinated and harmonised manner. To do so we need optimal interaction between people and technologies, bringing synergy between modes of transport to offer mobility in a way that is environmentally friendly, safe and efficient.

Detroit is not only a technological capital and a great location for the Congress, but it is also recognised for its excellent hospitality and its outstanding entertainment facilities. Europe is most excited about the prospect of this excellent ITS World Congress.

I look forward to meeting you in Detroit, and to participating together in the wide range of events planned during the Congress.

Dr. Hermann Meyer
CEO, ERTICO – ITS Europe

On behalf of ITS Asia-Pacific, I would like to welcome you all to the 21st ITS World Congress in Detroit.

Fast, safe, reliable and efficient transportation has been one of the most important elements of the society for economic growth and enhanced quality of life. We are now at the outset of an endeavor with a new set of technologies which will change the way we observe phenomena in transportation and act on it.

Penetration of information and communication technologies to our daily life has given significant impact on our society. Highly automated cars will be put into the market within a decade, which will dramatically reduce traffic accidents and congestion and also enable aged or challenged people to go out on their own.

However, technologies alone won't bring about solutions. We need to take an integrated approach, combining state of the art technologies with social innovations.

The ITS World Congress in Detroit is exactly where you find the right experts from industries, academic societies and government agencies. Policies, technologies, institutional issues and human factors will all be covered with supporting facts and experiences.

I hope the ITS World Congress will trigger a massive process of Reinventing Transportation in our Connected World.

Hajime Amano
Secretary General, ITS Asia-Pacific

International Program Committee

Thanks to the dedication and hard work of the 2014 International Program Committee, those attending the 21st World Congress on ITS will experience a robust and exiting program that spans a variety of topics and timely issues affecting the ITS industry worldwide.

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Each and every year, our sponsors gratify the work of ITS America and our affiliates by choosing again to lend us their support. We would like to thank all of them for their continued contribution and dedication to the transportation and mobility sector, and for this year helping us Reinvent Transportation in our Connected World.

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Transportation Information

All of the following information is also available on our site at **http://itsworldcongress.org/travel/public-transportation/.**

Getting Around Detroit

Attendees coming to the 21st World Congress on Intelligent Transport Systems featuring ITS America's Annual Meeting and Exposition will find traveling throughout the southeast Michigan area is convenient for travelers from around the world.

Travel by Air

Attendees will be able to print return boarding passes on site Wednesday and Thursday at Cobo in the registration area during registration hours.

Travel by Taxi

Detroit Metropolitan Airport's official luxury sedan and taxi cab providers, MetroCars and MetroCabs, offer convenient, on-demand transportation from the airport to points throughout the reg ion. Cost of cab fare into the city may vary from $45.00 - $70.00 USD. We recommend that you carry cash on your person for shorter cab rides once within the city.

Contact MetroCars at +1 (800) 456-1701 and MetroCabs at +1 (734) 997-6500 for more information.

Travel by Uber

Uber, the official transportation sponsor of the ITS World Congress, is offering attendees a free ride for up to a $30 value. New users can download the app, enter the promo code, and a car will be curbside within minutes. The app is available in both the Apple Store and Google Play.

Travel by Transit

Metro Detroit Area Transit (SMART)

Suburban Mobility Authority for Regional Transportation (SMART) provides public bus service to and from DTW Airport to points throughout Southeast Michigan. SMART currently serves the North Terminal with Routes 125 and 280, and the McNamara Terminal with Route 125.

Public bus service connects DTW Airport with the surrounding southeast Michigan region from stops located at each airport terminal:

- North Terminal: Ground Transportation Center
- McNamara Terminal: International arrivals level curb (lowest level) just outside and to the right of the terminal building exit

For more information regarding SMART Bus service, visit **www.smartbus.org**.

Travel by Rail

The Detroit People Mover

The Detroit People Mover is an automated people mover system serving the city of Detroit. There is a station inside the Cobo Center. For more information, visit **www.thepeoplemover.com**.

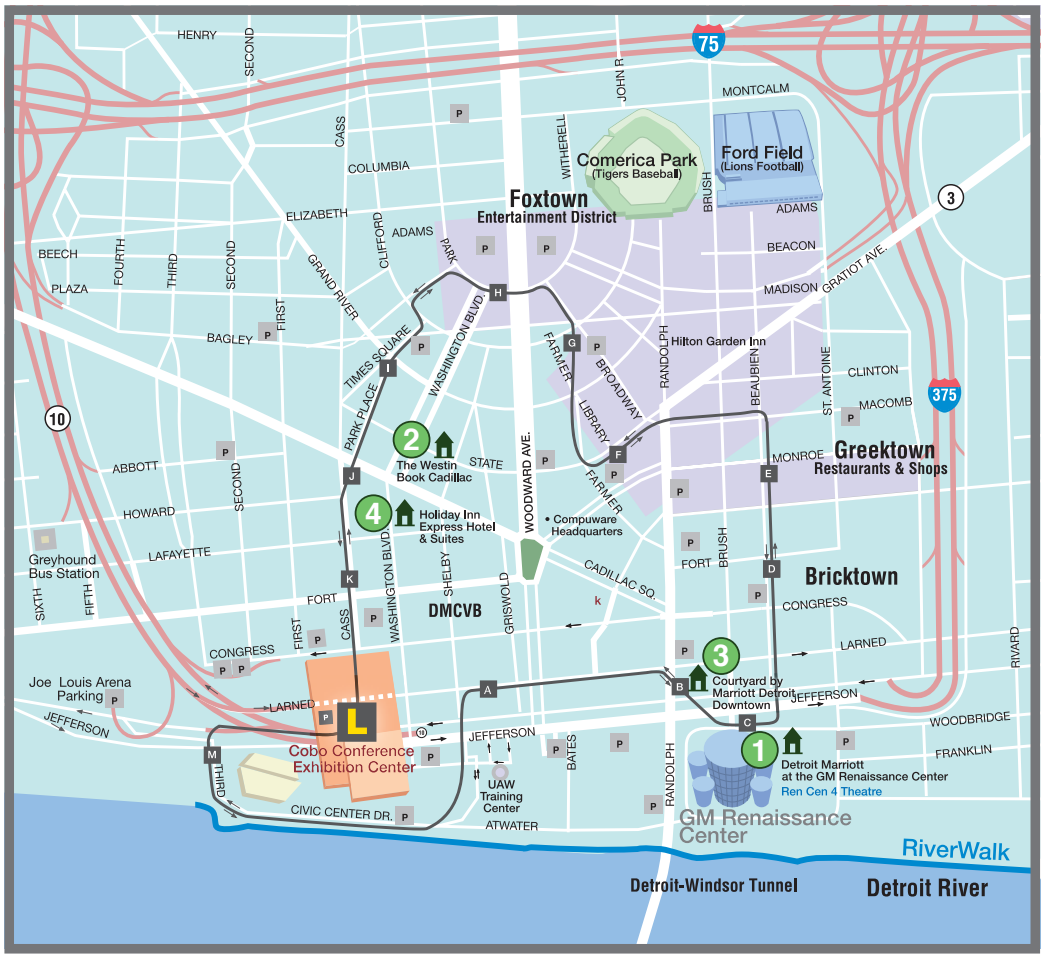
The People Mover hours of operation are as follows:

- Monday through Thursday, 6:30 a.m. to midnight
- Friday, 6:30 a.m. to 2:00 a.m.
- Saturday, 9:00 a.m. to 2:00 a.m.
- Sunday, noon to midnight

The fare is $0.75 per ride and can be paid in cash or by tokens available in or near stations. Monthly, Annual and Convention/Special Event passes are available online or by calling +1 (313) 224-2160.

Amtrak

Amtrak is a national high-speed rail operator that connects travelers to more than 500 destinations throughout the U.S. including the city of Detroit. The station is located in the New Center area of the city at 11 West Baltimore Avenue, Detroit, MI 48202. The station provides an enclosed waiting area and ticket office, and is handicap accessible. For Amtrak ticket purchases, schedules and service updates, visit their website at **www.amtrak.com**.



1. **Detroit Marriott at the Renaissance Center**
   Renaissance Center
   400 Renaissance Drive
   Detroit, Michigan 48243 USA
2. **Westin Book Cadillac Detroit**
   1114 Washington Blvd.
   Detroit, Michigan 48226 USA
3. **Courtyard Detroit Downtown**
   333 East Jefferson Ave
   Detroit, Michigan 48226 USA
4. **Holiday Inn Express Hotel & Suites Detroit Downtown**
   1020 Washington Boulevard
   Detroit, Michigan 48226 USA
5. **Cobo Center**
   1 Washington Blvd
   Detroit, MI 48226

People Mover Stations

- A Financial District
- B Millender Center
- C Renaissance Center
- D Bricktown
- E Greektown
- F Cadillac Center
- G Broadway
- H Grand Circus Park
- I Times Square
- J Michigan Avenue
- K Fort/Cass
- L Cobo Center
- M Joe Louis Arena

The People Mover's 13 stations include direct access to Cobo Center, Joe Louis Arena and Greektown Casino. Trains arrive every four minutes.

Accommodations P Parking

General Information

Exhibition Opening Dates and Times

Exhibitor Move-in	
Friday, September 5	10:30 a.m. – 6:30 p.m.
Sunday, September 7	10:30 a.m. – 6:30 p.m.
Exhibit Hall Ribbon Cutting	10:15 a.m. - 10:30 a.m.
Monday, September 8	
Exhibit Hall Open	
Monday, September 8	10:30 a.m. – 6:30 p.m.
Tuesday, September 9	9:00 a.m. – 4:30 p.m.
Wednesday, September 10	9:00 a.m. – 4:30 p.m.
Thursday, September 11	9:00 a.m. – 12:00 p.m.
Exhibitor Move-out	
Thursday, September 11	12:00 p.m. – 6:00 p.m.
Friday, September 12	8:00 a.m. – 12:00 p.m.

Registration Hours

Saturday, September 6	12:00 a.m. – 4:00 p.m.
Sunday, September 7	8:00 a.m. – 6:00 p.m.
Monday, September 8	7:00 a.m. – 5:00 p.m.
Tuesday, September 9	7:00 a.m. – 4:30 p.m.
Wednesday, September 10	7:00 a.m. – 5:00 p.m.
Thursday, September 11	7:00 a.m. – 3:30 p.m.

Time
Detroit, Michigan is in the Eastern Time zone, five hours behind GMT (Greenwich Mean Time).

Currency
The U.S. Dollar is the currency of the United States. Units are dollars and cents (100 per dollar). Current exchange rates can be obtained from your bank or online. Most credit cards are accepted in the United States, including American Express, Discover, MasterCard, and Visa. In general, the use of credit cards and automated teller machines will provide a far more favorable exchange rate than exchanging currency or traveler's checks at banks or hotels.

Gratuity
In Detroit, as in the rest of the United States, service personnel rely on tips for a substantial part of their income. For waiters, bartenders, taxi drivers, or similar, a 15-20% tip is standard. Baggage handlers at hotels and airports should be given $1.00 - $2.00 per bag. A hotel housekeeper should be left $2.00 - $5.00 per night at the end of your stay. Tipping is not expected in fast food restaurants, theaters, or cinemas.

Electricity
The electrical supply in the United States is 110V 60HZ in frequency. While hotels may provide their guests with plug adapters upon request, supplies are limited.

Internet Access
Most U.S. hotels offer wired or wireless high-speed Internet connections in their guest rooms. Most hotels also have a Business Center with available computers and printers for their guests use. The Cobo Center offers facility-wide, free, ultra high speed WiFi coverage.

Language
The official language of the ITS World Congress is English.

Insurance
The Americas Organizing Committee of ITS World Congress Detroit 2014 can accept no responsibility for accidents or damage to the private property of participants. Please make your own arrangements for health insurance and any other necessary insurance. Children under 18 years are not allowed at the Congress.

Climate
Southeast Michigan in September welcomes the end of summer. The average high is 76° F (24° C), and the average low is 59° F (15° C).

Smoking
There is no smoking indoors in the United States. There are designated smoking locations outside most public facilities, clearly marked by signs.

Water
Water throughout the country is potable and safe for drinking. Bottled water is available at hotels, restaurants, supermarkets, etc.

Speaker Ready Room

Speakers may utilize the Speaker Ready Room onsite if they are unable to upload their presentation prior to September 7th or have any last minute changes to their presentations. Please have your presentation on CD-ROM or saved on a USB key. Presentation review is an important part of the process because you may experience compatibility issues when moving your presentation onto our machines. Uploaded presentations will be forwarded to the correct session room.

The Speaker Ready Room will not have internet connection.

The Speaker Ready Room will be available throughout the Congress. Speakers in the early morning sessions (8:30 a.m. – 10:00 a.m.) must upload their presentations the day before their session.

Please note that there may be a queue at peak hours and plan accordingly.

Speaker Ready Room Hours of Operation: Room: 338

Sunday	11:00 a.m. – 6:30 p.m.	Wednesday	7:30 a.m. – 5:00 p.m.
Monday	7:30 a.m. – 5:00 p.m.	Thursday	7:30 a.m. – 1:30 p.m.
Tuesday	7:30 a.m. – 5:00 p.m.		

Conference Proceedings

We have moved our 2014 ITS World Congress Proceedings online! All 21st ITS World Congress attendees will have access to the full list of technical and scientific papers after the World Congress. You will be sent your username and password after the end of the World Congress. When you receive your login information, please visit www.itsworldcongress.conferencespot.org to view the full conference proceedings!

Professional Development Hours

Attendance at ITS America's 2014 Annual Meeting and the ITS World Congress entitles you to earn up to 23 professional development hours (PDH). Many engineering and related licensure and certification agencies around the world require the demonstration of continuing professional competency that is met by the range of technical, scientific, executive, special, and plenary sessions you can attend at this Congress. With over 23 possible units for you to acquire, your World Congress attendance easily provides you the opportunity to complete most, if not all, of your annual PDH requirement.

Experient is the Official Housing Provider for the ITS World Congress. The ITS World Congress has worked diligently with the hotels in Detroit to establish room blocks for attendees and exhibitors. Improper solicitation of hotel reservations from any company or housing provider other than Experient is not approved by the ITS World Congress. Reservations made by unaffiliated organizations may appear to be for lower rates, however they may be illegitimate, have unreasonable cancellation or change penalties, or be completely non-refundable. Please be aware of, and report any unauthorized solicitation to the ITS World Congress.

Social Media

Join the Conversation!

21ST WORLD CONGRESS
DETROIT 2014
INTELLIGENT TRANSPORT SYSTEMS

#ITSWC14 is taking to the social networks to continue discussions about all of the innovative technologies, groundbreaking research, and exciting events that we'll experience throughout the week. Make sure you're a part of our online communities and use **#ITSWC14** to connect with other attendees.

- @ITS_America | @AllyAuto
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- ITS America
- youtube.com/ITS World Congress

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The 2014 ITS World Congress Mobile App

Download the official ITSWC14 app

Get the ITSWC14 program in the palm of your hand!

+ Get all the details on our 275 sessions
+ Read up on our exhibitors
+ Explore the show highlights
+ Plan your evenings with our social events and tours
+ Save your itinerary

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EDI EBERLE DESIGN INC.

The app and website for the ITS World Congress have been designed by Optimus Consulting. www.Optimus.com

OPTIMUS

Congress Format

Opening and Closing Ceremonies

The Opening Ceremony will be held Sunday at the Cobo Center Grand Riverview Ballroom. General Motors CEO Mary Barra will provide the opening keynote speech and address the changing transportation environment around the world as well as the rapidly evolving technology of connected, autonomous, and electric vehicles. The event will also feature exciting special entertainment and several awards.

The Closing Ceremony, to be held Thursday afternoon at the Cobo Center and sponsored by Toyota, will provide a summary of the Congress and future perspectives. There will be several awards and the "Passing of the Globe" ceremony. See page 128

Featured Events

High Level Policy Roundtable

This roundtable will bring together international ministerial level officials and transportation secretaries from around the U.S. to discuss 21st century transportation challenges facing their agencies, including what they are doing to prepare for connected and autonomous vehicles and how technology is helping to serve their constituents. See page 37

CTO Summit

This year, the World Congress introduces a series of sessions that will host Chief Technology Officers from around the world. Speakers will focus on visions of ITS in the future, connectivity and automation, new mobility, and institutional issues. See page 40

Sessions

The following sessions are to be held at the Cobo Center:

Plenary Sessions

Top level transport officials and leading industry representatives from numerous countries will present insightful speeches on ITS policies, initiatives, and international development trends. See page 39

Executive Sessions

High-level industry executives, public officials, and academics from around the world will share their expert global and strategic views on ITS achievements, issues, and challenges. See page 42

Town Hall Sessions

These sessions will function as an open forum, providing a panel of experts and attendees with a highly interactive meeting that will host higher profile topics affecting the transportation industry. See page 38

Special Interest Sessions

Coordinated at the request of organizations or individuals involved in developing and deploying ITS, these sessions are designed as open fora and workshop for experts from government, industry, and academia to hold discussions and debates on specific topics. See page 46

Technical/Scientific Sessions

These sessions will be composed of presentations by international experts on various ITS-related topics encompassing all technical, economic, organized, and societal aspects of ITS. See page 76

Interactive Sessions

Authors will present their technical papers on the World Congress Exhibit floor through dynamic presentations. These sessions will provide a space for interactive discussion between authors and their audience. See page 110

International Benefits, Evaluation, and Costs (IBEC) Sessions

IBEC sessions, led by the IBEC Working Group, created to provide an international forum for information exchange on ITS best practices, will feature presenters from all over the world discussing road pricing, freight transportation, climate change, and more. See page 112

Middle East and Africa ITS Initiatives Sessions

Middle East and Africa ITS Initiative sessions will present the latest on what has become a fast growing, ITS friendly region. See page 115

Annual Meeting Sessions

ITS America will host its Annual Meeting at the ITS World Congress. The program will include Executive Sessions, sessions organized by the U.S. DOT, and a variety of Special Interest Sessions focused on ITS in North America. See page 116

Exhibition

The Exhibition, to be held at Cobo Center, will create an international meeting point for industries and agencies involved in ITS. This will be a wonderful opportunity to promote your organization's technologies to the world amongst our 300,000 sq. ft. of exhibit space. See page 140

Technical Tours

Various field trips and tours will be conducted to explore the greater Detroit area and its grand position as the birthplace of the automotive industry and the leading center of future transportation research and deployment. See page 136

Technology Showcase Demonstrations

The Technology Showcase demonstrations will take place at Cobo Center, the outdoor exhibit area on Belle Isle, and on the streets of Detroit launching from the Atwater parking lot. Shuttle service will be provided. Participants will experience firsthand the cutting-edge ITS technologies and solutions of the future. See page 122

Guest Tours

Attractive guest tours in and around Detroit are planned specifically for delegates and accompanying persons. See page 134

Social Events

A series of social events have been organized to provide attendees unforgettable networking opportunities. See page 128

Special Features

Michigan Spotlight

Michigan is what happens when business meets green light. The state is a definite “go” when it comes to connected and intelligent transportation. Michigan’s DOT leads connected vehicle testing with advanced deployments and a state-of-the-art traffic management center that decreases traffic congestion and aids emergency response. The Michigan Mobility Transformation Center is conducting real-world testing of connected and automated vehicles while developing on-road vehicle deployments to evaluate consumer behavior and explore market opportunities. But none of this is possible without technology and talent. Michigan is home to the most industrial designers, engineers and R&D professionals in the country. Michigan ranks second in R&D investment. Home to top-ranked engineering and supply chain schools. Now for the rest of the story. Michigan is also the place to live and play. World’s longest freshwater coastline. Sleeping Bear Dunes was voted “Most Beautiful Place in America.” One of the top 10 best craft beer states. Home to popular wineries and thriving culinary cities. Culture abounds — museums, theaters, historical attractions. So visit Michigan Spotlight to talk to more than 30 industry, economic development, academic, and government experts to learn how Michigan can put you on the road to success.

Learn more: **michiganbusiness.org/ITS**

Emergency Responder Day

Sponsored by: OPTICOM | MOTOROLA SOLUTIONS FOUNDATION | Gannett Fleming

This year’s ITS World Congress will provide a unique look at what emergency responders do on the scene of an accident and how the developments in transportation technology help make things run smoother, faster, and safer. On Tuesday, September 9, attendees will be able to watch a mock version of a traffic incident involving an overturned tanker truck. Attendees will watch as first responders arrive, assess, respond, and clear the scene, utilizing the latest ITS technologies. Representatives from various first responder communities will be available for questions and to provide real-time narration of the events as they unfold. Responders will also be treated with a special tour of the exhibit floor and technical sessions focused on the latest technologies in their field. Emergency responders who attend Tuesday’s events in uniform will receive free admission to the mock incident and exhibit floor.

Learn more: **http://itsworldcongress.org/er-day**

ER01 – Emergency Response Day Special Session: Resilient ITS to Support Emergencies and Major Events

Tuesday, September 9, 10:30 a.m. – 12:00 p.m. | **Cobo 330 A**

This session will highlight international perspectives on the importance and/or use of robust and resilient Intelligent Transportation Systems during significant weather events and other emergency situations. This is a continuing topic carried over from the 20th World Congress in Tokyo. Major weather events and other emergencies in the United States, Asia, and Europe have stressed our ITS, communications, power, and transportation infrastructure. This session will compare and contrast the experiences in North America, Europe, and Asia to plan for and fund more robust and resilient systems in the aftermath of catastrophic events, as well as how they are exercised by authorities and utilized by the public in emergency situations.

Organizer & Moderator
Steven Cyra, HNTB Fellow, Associate Vice President, Traffic Operations/ITS HNTB Corporation, USA

Speakers
Soumya Dey, Transportation Executive, Washington D.C. DOT (ITS for Major Washington DC Events), USA

Bill Legg, State ITS Operations Engineer, Washington State DOT (Mudslide and Bridge Collapse), USA

ER02 – Emergency Response Day Special Session: Traffic Incident Management — Putting Practice Into Play

Tuesday, September 9, 1:00 p.m. – 2:30 p.m. | **Cobo 330 A**

The U.S. DOT FHWA is responsible for aggressively implementing the National Traffic Incident Responder Training Program. To date, approximately 30,000+ responders have received this training throughout the U.S. and while this is a good start, there are literally hundreds of thousands of responders that still need to be trained in this critical transportation operations and safety activity. As being emphasized in each of the FHWA TIM training programs and initiatives, there needs to be stronger engagement of the first responder community (including law enforcement, fire, EMS, towing & recovery, etc.) in the ongoing transportation operations dialogue. The 2014 ITS World Congress in Detroit offers an exceptional opportunity to do this, building nicely on the TIM activities and Emergency Response Day held at the last U.S. World Congress in Orlando.

Organizer & Moderator
Steven Cyra, HNTB Fellow, Associate Vice President, Traffic Operations/ITS HNTB Corporation, USA

Speakers
Paul Jodin, Traffic Incident Management Program Manager, Federal Highway Administration (FHWA) , USA

Richard Marinucci, Deputy Director of Fire Services, Northville Township, Michigan , USA

Craig Shackleford, Sergeant, Bloomfield Township Police Department, Michigan , USA

Related Events:

- TS41 – Tools for Providing Statewide and Metropolitan Area Enforcement Incident and Emergency Management | Tuesday, September 9, 1:00 – 2:30 p.m.

See page 87

Youth Connections Showcase

ITS America is proud to spotlight the next generation of ITS talent developing in Michigan and the career opportunities in the intelligent transportation arena at this year's World Congress. The Youth Connections Showcase will expose more than 1,000 high school and college students to the ITS industry by arranging guided tours of the exhibit halls, and by hosting a variety of competitions, breakout sessions, and demonstrations to highlight the young talent in the state.

Competitions

Square One will challenge teams of high school students in exciting on-site electric vehicle build competitions, and MDOT TRAC will conduct a model bridge building competition. Additionally, there will be student demonstrations throughout the event. Square One's high school students will showcase their projects with Wireless Hands-on Applied Mechatronics (WHAM), a community outreach project utilizing radio controlled vehicles. College teams from around the area will demonstrate a variety of Intelligent Ground Vehicle autonomous robots. **Demonstrations and competitions will begin daily at 11:00 a.m.** The Road Code challenge will task college students and young professionals from around Michigan in developing applications that integrate mobile technology and transportation systems, and will showcase their innovative ideas and technical skills. The Road Code event will take place at Grand Circus in Detroit, MI in a 24-hour competition from 7 p.m. Friday, September 5 to 7 p.m. Saturday, September 6. Awards will be presented on Saturday evening. Participant teams will be offered the chance to present their projects on the show floor during World Congress.

Learn more: **http://itsworldcongress.org/youth-connection**

YC01 – Youth Connections Showcase Special Session: Education and Training Needs for Emerging ITS Technologies

Wednesday, September 10, 10:30 a.m. – 12:00 p.m.

Cobo 142 A

In an increasingly complex age of connectivity and automation, worker skills in technical fields, as well as policy, legal, and business arenas must quickly evolve. This session will address the education needs in our connected world, starting with youth programs at an elementary level and extending into advanced education requirements at the collegiate level. The session will focus on technical training in science, technology, engineering, and math (STEM), but will also provide insights regarding evolving legal, business, and institutional knowledge needs. The evolution of education policy and use of technology in the classroom will also be elements of this session.

Organizer & Moderator

Karl Klimek, Executive Director, Square One Education Network, USA

Speakers

Doug Patton, Executive Vice President, DENSO International America, Inc., USA

Nigel Francis, Senior Automotive Adviser to the State of Michigan, Senior Vice President, Automotive Industry Office, Michigan Economic Development Corporation, USA

Kristin Dziczek, Director, Industry and Labor Group, Center for Automotive Research, USA

Chad Segrist, Science Teacher and STEAM Coordinator, Detroit Institute of Technology, Cody High School, Detroit Public Schools, USA

Sean Kelley, Senior Vice President/Principal, Mannik Smith Group, USA

Maram Mohammed, Junior, Connected Vehicle/Denso School Team Leader and Future Computer Science Major, Michael Berry Career Technical High School, Dearborn, MI, USA

Davaughn Humphries, Innovative Vehicle Design Team Leader and Future Automotive Engineer, Detroit Institute of Technology, Cody High School, Detroit Public Schools, USA

Katelyn Drake, Research Assistant, Center for Automotive Research, University of Michigan, USA

Special Features continues on next page >

Transportation for Tomorrow: Inventors and Investors

Sponsored by: FONTINALIS PARTNERS, RAYMOND JAMES®, ECONOLITE Group, Inc., Quicken Loans

Transportation for Tomorrow is a revolutionary two-part program comprised of our inaugural Entrepreneurial Village and the second annual ITS America Investor Matching Event. For the first time ever, the World Congress exhibit floor will feature an Entrepreneurial Village where emerging companies will have a dedicated space for promoting their most innovative ideas and technologies that are fundamentally changing the way we move, For the first time ever, the exhibit floor will feature an Entrepreneurial Village, sponsored by Quicken Loans, where emerging companies will have a dedicated space for promoting their most innovative ideas and technologies. Partnering with Fontinalis Partners LLC, Econolite Group, and Raymond James, ITS America will provide competitive young innovators and entrepreneurs with the best cutting-edge ideas, technologies, and business plans with the opportunity.

Learn more: **www.itsworldcongress.org/investormatching**

Traffic Management Center

The TMC Showcase will feature live workstations from the Michigan DOT, Local County and City transportation departments, Michigan State Police, the Ministry of Transportation Ontario and Amtrak. Attendees will be able to monitor video walls showing inter-departmental collaboration and look into the future with next-generation technology.

In addition, the TMC will allow World Congress participants to become immersed in incident response and congestion management through interactive kiosks. Hear real time communications between different agencies as they respond to incidents on Michigan roadways. Watch how technology and transportation combine to provide information to users of all modes of transportation.

Additionally, ITS America will be hosting an Investor Matching Event as a part of its Annual Meeting. ITS America will provide competitive young innovators and entrepreneurs with the best cutting-edge ideas, technologies, and business plans with the opportunity to pitch their ideas for funding.

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Session Tracks

Many, but not all, of the ITS World Congress sessions can be found in the following session tracks.

Automated Transportation

Sponsored by: AUVSI, TRB

- **ES01**: Roadmap to Automated Transportation
- **SIS13**: State-of-the-Art in Automated Vehicles
- **SIS20**: Is There Vehicle Automation without Accurate Maps?
- **SIS26**: Technical Challenges for Adoption of Automated Vehicles
- **SIS35**: Human Factors Challenges of Vehicle Road Automation
- **SIS42**: Impacts and Opportunities for Automated Vehicles
- **SIS50**: Towards Automation: Research and Deployment Challenges
- **SIS59**: Paving the Way for Self-Driving Cars: Legislative and Legal Issues on the Horizon for Autonomous Vehicles
- **SIS72**: Automated Driving Technology Research in Japan — Strategic Innovation Promotion Program
- **SIS74**: Evaluation and Requirements for Automated Vehicles Road Testing towards Deployment
- **AM12**: Future of Fleet Automation
- **AM14**: Autonomous Vehicles: Savior of the Western World or an Over-Hyped Version of new Cars?
- **TS98**: Implications and Assessment of Automated Driving
- **TS105**: New Trends In Detection
- **TS111**: Future Directions In Automated Driving
- **TS119**: Autonomous Driving Systems

Big Data and Open Data

Sponsored by: MERITOR WABCO

- **ES06**: Big Data and Open Data — The Big Issues
- **SIS08**: Data Driven Traffic Modeling and Analysis
- **SIS09**: Big Data And The Connected Vehicle — When We Build It, The Data Will Come
- **SIS17**: Japan-U.S.-European Joint Research on the Use of Probe Data
- **SIS32**: ITS Infrastructure Initiative by Circulating Traffic Big Data — From Autonomous Driving to Elderly Driving Support
- **SIS36**: Revolutionizing Performance Assessment of the Roadway Network Through Data and Analytics
- **SIS64**: Data, Directives and Regulations: How Crowd Sourced Data is Helping Agencies Meet New Rules
- **SIS71**: Application of Big Data to Transportation Operations & Planning
- **SIS87**: From Vertical to Horizontal to Connected Clouds
- **AM11**: Private Consumer Applications and the Growing Request to Interface to Public Traffic Systems
- **TS11**: Recent Developments in Data Collection
- **TS13**: Big Data Management and Analysis
- **TS25**: Data Sharing and Open Source Data
- **TS31**: Innovative Traffic Data Collection and Analysis Strategies
- **TS82**: Innovations in Traffic Data Collection and Analysis
- **TS93**: Data Management Strategies
- **TS112**: Challenges in Big Data Management

Connected Vehicles & Cooperative Systems

- **ES03**: Worldwide Deployment of Cooperative Systems
- **SIS06**: Cooperative ITS for Now and the Next (Round 3)
- **SIS31**: Liability Issues for the Connected and Autonomous Vehicle
- **SIS45**: Cooperative ITS Vehicle Architecture and Applications
- **SIS52**: National Road Authorities and Strategies Concerning Co-operative Systems Alone or as to Support Automation
- **SIS53**: Evaluation of Costs and Benefits of Cooperative Systems and Automation Applications
- **SIS62**: Strategy of Practical Implementation of V-I Cooperative Systems for Traffic Accidents Avoidance
- **SIS67**: Updates of Connected Vehicle in China
- **SIS68**: Cooperative Driving Technology and Standardization
- **SIS76**: The Impacts of Connected Vehicle Technology on Transportation Agency Operations
- **SIS77**: Modeling Connected Vehicle Applications and Dynamic Management Strategies: Issues and Challenges
- **SIS83**: Adaptive Signal Control Technologies in the World of Connected and Automated Vehicles
- **SIS88**: The Connected Car Becomes the Ultimate Mobile Device
- **IBEC1**: Will There be an Attractive/Convincing Cost Benefit Case Introducing C2X and Automated Vehicle Driving in Road Transportation?
- **IBEC3**: Evaluation of Connected Vehicles
- **IBEC5**: Evaluating Benefits and Business Cases for Cooperative ITS (connected vehicles)
- **TS03**: Connected Vehicle Deployment and Field Tests
- **TS04**: V2X Technology Evaluations
- **TS34**: Cooperative Systems Research and Development
- **TS44**: Connected Vehicle Applications
- **TS47**: Cooperative Vehicle Field Test Programs
- **TS54**: Vehicle Detection and Location by Video, Sensors, and Probes
- **TS62**: Cooperative Systems
- **TS64**: Developments in Connected and Autonomous Vehicle Systems
- **TS68**: New Uses for Roadside Equipment
- **TS77**: Sensing the Vehicle Environment
- **TS79**: Multi Object Collision Avoidance
- **TS88**: Collision Avoidance Systems
- **TS104**: Collision Warning Systems

Driver Behavior and Support

Sponsored by: AAA

- **SIS18**: Driving Behavior by Aged People and its Countermeasure using KUSANONE ITS
- **TS12**: Implications of Driver Behaviour on ITS System Performance
- **TS22**: Driver Support Systems on Personal Devices
- **TS23**: Driver Assist Systems
- **TS40**: Human-Machine Interface Evaluation
- **TS65**: Driver Assistance Systems
- **TS72**: Driver Simulation
- **TS96**: Driver Behaviour and Cognition of Signage and Markings
- **TS109**: User Behavior

Economic Growth

- **ES11**: ITS and Economic Growth
- **SIS11**: The Economics and Partnerships Driving Connected Cars
- **SIS22**: Establishment of a Results Driven Investment Program for Intelligent Transportation Systems
- **TS20**: Road User Charging 1
- **TS24**: Road User Charging 2
- **TS42**: Road User Charging 3
- **TS56**: Road User Charging 4
- **TS89**: Developing an ITS Workforce
- **TS110**: ITS Developments in Evolving Markets

Freight

Sponsored by: ITS AMERICA LEADERSHIP CIRCLE

- **ES09**: Driving Freight Efficiency with ITS
- **SIS12**: ITS Applications in Truck Parking Availability
- **SIS37**: State of the Art and Benefits of Real Time Information for Commercial Vehicles
- **SIS66**: How Can We Design A More Efficient and Reliable Freight Transport System Through the Use of ITS Solutions?
- **AM03**: Commercial Vehicle and Freight Movement Technologies for Safety, Efficiency, Mobility, and Enforcement
- **TS38**: Commercial Vehicle Enforcement Strategies
- **TS60**: Commercial Vehicle Operators

International Cooperation to Expand ITS

- **ES02**: International Cooperation to Spread and Expand ITS
- **SIS07**: Deployment of Cooperative ITS Services: A Global Affair
- **SIS23**: Accelerating Service Deployment — Strategy View from the Traffic and Transport Industry
- **SIS41**: ITS for Global Mega Events
- **SIS63**: Government Initiatives in Vehicle Automation
- **TS06**: Policy Changes To Connected and Autonomous Vehicles
- **TS33**: National Efforts to Plan and Deploy ITS Systems
- **TS36**: Policy and Strategy Benefits and Lessons Learned in ITS
- **TS70**: Strategic Issues in ITS Development
- **TS92**: Regional and Statewide Integrated ITS Deployments
- **TS115**: Development of Cooperative ITS Architecture

ITS Rules and Standards

- **ES12**: Global Harmonization of ITS Rules and Standards
- **SIS05**: International Standard Issues for Green ITS (G-ITS)
- **SIS21**: International Harmonization of Cooperative ITS Security Policy
- **SIS34**: Minimum Quality Requirements for Driving Event Video Recorder to Secure Safe Driving Management
- **SIS54**: International Harmonization of the Interoperability Assessment Processes
- **TS05**: Cooperative ITS System Standards
- **TS116**: Standardization

New Mobility

- **ES05**: ITS and the New Mobility
- **SIS02**: Apps, Innovation, and Regulation: Protecting the Public Interest in the Midst of Disruptive Competition
- **SIS28**: Meet The New Mobility Industry Vanguard: A View from the Trenches
- **SIS47**: National ITS Associations — Driving Mobility Deployment
- **SIS65**: Can we Take Traveler Information to the Next Level to Improve Mobility?
- **SIS73**: Future Mobility Beyond 202X
- **AM16**: The Sharing Economy and Shared Mobility
- **AM20**: New Urban Mobility: Is This the Death of Public Transit as we Know it?
- **TS39**: Management of Shared and Electric Vehicles
- **TS49**: Multimodal Signal Priority Management
- **TS67**: Application of SmartPhone Technology to Improve Mobility

Public Transit

- **SIS16**: Open Data in Public Transport: Challenges and Opportunities
- **SIS27**: Visualizing an Integrated Transport System — A Multi-modal Approach Enhanced by Automated Transit Networks
- **SIS33**: Big Data in Transit: Are Our Heads in the Clouds?
- **SIS51**: Public Transport in Mega Cities
- **TS15**: Innovations in Bus Vehicle Systems
- **TS30**: Public Transportation Modeling
- **TS37**: Aspects of Multimodal Public Transportation
- **TS71**: Transit Signal Priority
- **TS81**: Academic Issues on Public Transportation
- **TS113**: Tools to Improve Transit Services

Smart Cities

Sponsored by: ird PAT Traffic

- **ES08**: Innovation for Mobility in Smart Cities
- **SIS15**: Lean Demand Management for Smart Parking
- **SIS25**: Mega City ITS Programs, New York City's Approach
- **SIS40**: Leveraging ITS and the Internet of Things to Enable Complete Streets
- **SIS44**: Seamless Mobility — ITS in Smart Cities, an Asia Pacific perspective
- **SIS48**: Smart Parking: The Foundation and Accelerator for the Smart City and Connected Car

Session Tracks continues on next page >

Sustainability

- **ES07**: ITS: Essential for Sustainability
- **SIS04**: EU-US Task force — Collaborative Efforts in Sustainability Applications
- **SIS19**: Wireless Power: Transforming Transportation
- **SIS30**: Evaluation Methodology of the Effects of ITS on CO_2 Emissions and its Application
- **SIS49**: Global Perspectives: Cooperative Energy Efficient Applications
- **AM01**: Sustainable Transportation Performance Measures: Best Practices
- **TS17**: ITS, Sustainability and Business Cases
- **TS45**: Energy and Emission Impacts of ITS
- **TS51**: Eco-Drive Management Systems

Traffic Management

Sponsored by: PARSONS BRINCKERHOFF

- **ES10**: Ways to Achieve Smoother Traffic
- **SIS03**: Sharing of Road and Traffic Information
- **SIS14**: Integrated Corridor Management — The Next Step
- **SIS29**: Smart Intelligent Traffic Intersections for the Connected Vehicle of the Future
- **SIS38**: TPEG Traffic Services Worldwide
- **SIS43**: What is the Most Important Point in ITS Deployment in Mega-Cities of Asia-Pacific?
- **SIS46**: Applying Intelligent Transportation Systems to Cross Border Issues
- **SIS75**: Traffic Sensing by Various Manners
- **SIS79**: SMART Tolling for Achieving Future Green Road
- **AM05**: Transportation Management Centers — Past, Present, and Future
- **TS01**: Using Simulation for Traffic Management Applications
- **TS69**: Advanced Traffic Management 1
- **TS90**: Innovative Traffic Management Concepts and Systems
- **TS99**: Advanced Traffic Management 2

Traffic Safety

- **ES04**: Traffic Safety through ITS
- **SIS10**: Connected/Automated Vehicles — The Safety Case
- **SIS39**: Saving Lives with Photo Enforcement
- **AM17**: ITS Improvements that Lead to Safety: The State Perspective
- **AM18**: Human Factors Leading to Safe and Connected Automation
- **TS10**: Safety Based Sensor Systems
- **TS21**: Traffic Safety Applications
- **TS26**: Driving Safety
- **TS53**: Safety System Sensors
- **TS58**: Improving Intersection Safety with ITS
- **TS97**: New Techniques To Analyze, Predict, and Mitigate Traffic Safety
- **TS106**: Developments in ITS Based Safety Systems

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ACCELERATETEXAS

Texas Department of Transportation

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To learn more, talk to a TTI researcher during the ITS World Congress or write us at accelerate@tti.tamu.edu.

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Keynote Speakers

Our program would not be complete without our impressive and knowledgeable keynote speakers from across the industry.

Mary Barra, **General Motors CEO**

Opening Ceremony

Sunday, September 7, 5:00 p.m. – 6:30 p.m. | **Cobo Grand Ballroom**

Mary Barra was named Chief Executive Officer of General Motors effective January 15, 2014. Under her leadership, GM is driving to become the global industry leader in automotive design and technology, product quality and safety, customer care and business results. She is also a member of the GM Board of Directors. Prior to her current position, Barra served as Executive Vice President, Global Product Development, Purchasing & Supply Chain since August 2013, and as Senior Vice President, Global Product Development since February 2011. In these roles, she was responsible for the design, engineering, program management and quality of GM vehicles around the world.

Michael A. Finney, **Michigan Economic Development Corporation (MEDC)**

Opening Ceremony

Sunday, September 7, 5:00 p.m. – 6:30 p.m. | **Cobo Grand Ballroom**

Michael A. Finney is President and CEO of the Michigan Economic Development Corporation (MEDC), a public-private partnership serving as the state's lead agency for business and job growth, talent enhancement, tourism marketing, arts and cultural grants, and overall economic growth. His responsibilities at MEDC also include serving as Governor Rick Snyder's Economic Growth Group Executive and as President and Chairman of the Michigan Strategic Fund. Under Mike's leadership, the MEDC developed Pure Michigan Business Connect (PMBC), one of the most innovative economic development programs in the country. PMBC provides comprehensive business development, capital access, talent enhancement and marketing assistance to Michigan based companies.

Bill Ford, **Ford Motor Company Executive Chairman**

Reinventing Policy to Support the New ITS (Plenary Session)

Monday, September 8, 8:30 a.m. – 10:00 a.m. | **Cobo Grand Ballroom A**

Bill Ford is leading the company that put the world on wheels into the 21st century. He joined Ford Motor Company in 1979 as a product planning analyst and went on to hold a variety of assignments in manufacturing, marketing, product development and finance, and was CEO from 2001 to 2006. A board member since 1988, he became chairman in 1999. He also serves on the board's Finance and Sustainability Committees. A lifelong environmentalist, Mr. Ford is committed to increasing shareholder value by developing products that please customers and benefit society.

Lowell C. McAdam, **Verizon Communications Chairman and CEO**

Reinventing Business Models for the New ITS (Plenary Session)

Tuesday, September 9, 8:30 a.m. – 10:00 a.m. | **Cobo Grand Ballroom A**

Lowell McAdam is chairman and chief executive officer of Verizon Communications, one of the industry's leading providers of wireless, fiber-optic and high-speed global Internet networks. Prior to being named CEO in 2011, McAdam was the company's president and chief operating officer and previously had been president and CEO of Verizon Wireless, which runs the nation's largest and most reliable wireless network. McAdam is a director of the National Academy Foundation, a partnership between business leaders and educators that helps high schools across the country establish technical and service academies to prepare students for college and careers. He also co-chairs the CEO Council on Health and Innovation, which encourages the adoption of innovative strategies to improve employee health and deliver higher-quality, more cost-effective healthcare. In addition, he is a member of the Cornell University Board of Trustees.

Robert Slimp, **CEO of HNTB Infrastructure**

High Level Policy Roundtable

Sunday, September 7, 2:30 p.m. – 4:00 p.m. | **Cobo 310 A/B**

Under Slimp's leadership, HNTB is committed to helping states design and build programs successfully within a challenging economic and legislative climate. With some of the firm's largest and longest-standing clients, and significant opportunities in the toll and rail markets, Slimp also is championing the firm's future growth strategy and commemoration of its centennial this year. Leading a multi-discipline staff in more than 60 U.S. offices and field offices, he directs the firm's delivery of the nation's most complex transportation infrastructure projects and programs. Slimp has held a variety of leadership roles since joining HNTB in 2005, including service as president of the Northeast and Southeast divisions of HNTB, as well as district leader for HNTB's Texas, Louisiana, and Mississippi practices. He has two decades of experience in the planning, preliminary, and final design of large-scale infrastructure projects.

Kirk T. Steudle, **ITS America Chair, Michigan DOT State Transportation Director**

High Level Policy Roundtable

Sunday, September 7, 2:30 p.m. – 4:00 p.m. | **Cobo 310 A/B**

Kirk T. Steudle oversees MDOT's more than three billion dollar budget and is responsible for the construction, maintenance and operation of nearly 10,000 miles of state highways and more than 4,000 state highway bridges. He also oversees administration of a wide range of multi-modal transportation programs statewide. Steudle began his career with the Michigan DOT (MDOT) in 1987 as an engineer trainee. A registered professional engineer, he rose through the ranks of the department to his current position. He was appointed State Transportation Director by Governor Rick Snyder on Jan. 1, 2011.

Rodney O'Neal, **Delphi CEO & President**

CTO Plenary – Visions of ITS in 2025: Panel 1

Monday, September 8, 12:00 p.m. – 1:00 p.m. | **Cobo Grand Ballroom A**

Rodney O'Neal is chief executive officer and president of Delphi. As the head of Delphi, he leads more the 160,000 people and oversees 126 manufacturing sites and 15 technical centers in 32 countries. Mr. O'Neal's automotive industry experience began as a student in 1971 at General Motors Institute (now Kettering University). He later worked for GM, holding a number of engineering, production and manufacturing supervisory positions over the years in locations throughout the United States, Portugal, and Canada.

Honorary Committee

Mr. Rick Snyder
Governor (Chair Honorary Committee)

Mr. Kirk T. Steudle
Director (Vice Chair Honorary Committee)
Michigan DOT

Mr. Michael A. Finney
President & CEO
Michigan Economic Development Corporation

Ms. Debbie Stabenow
Senator
U.S. Senate

Mr. Carl Levin
Senator
U.S. Senate

Mr. Kerry Bentivolio
Congressman
11th Congressional District

Mr. Mike Rogers
Congressman
8th Congressional District

Mr. John Dingell
Congressman
12th Congressional District

Mr. Sander Levin
Congressman
8th Congressional District

Mr. John Conyers, Jr.
Congressman
13th Congressional District

Mr. Gary Peters
Congressman
14th Congressional District

Mr. Fred Upton
Congressman
6th Congressional District

Mr. Tim Walberg
Congressman
7th Congressional District

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Congressman
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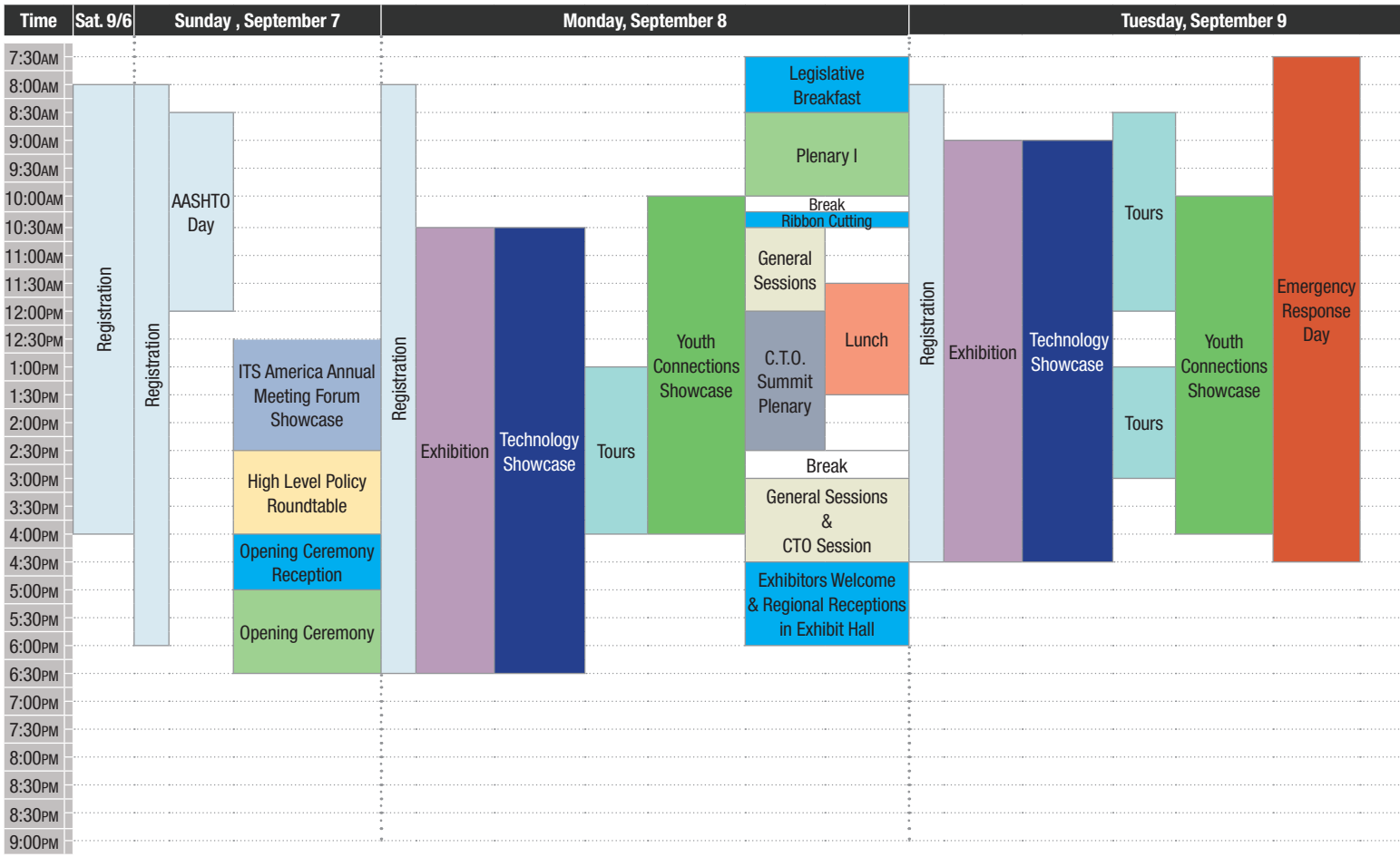
Schedule at a Glance



Sessions at a Glance

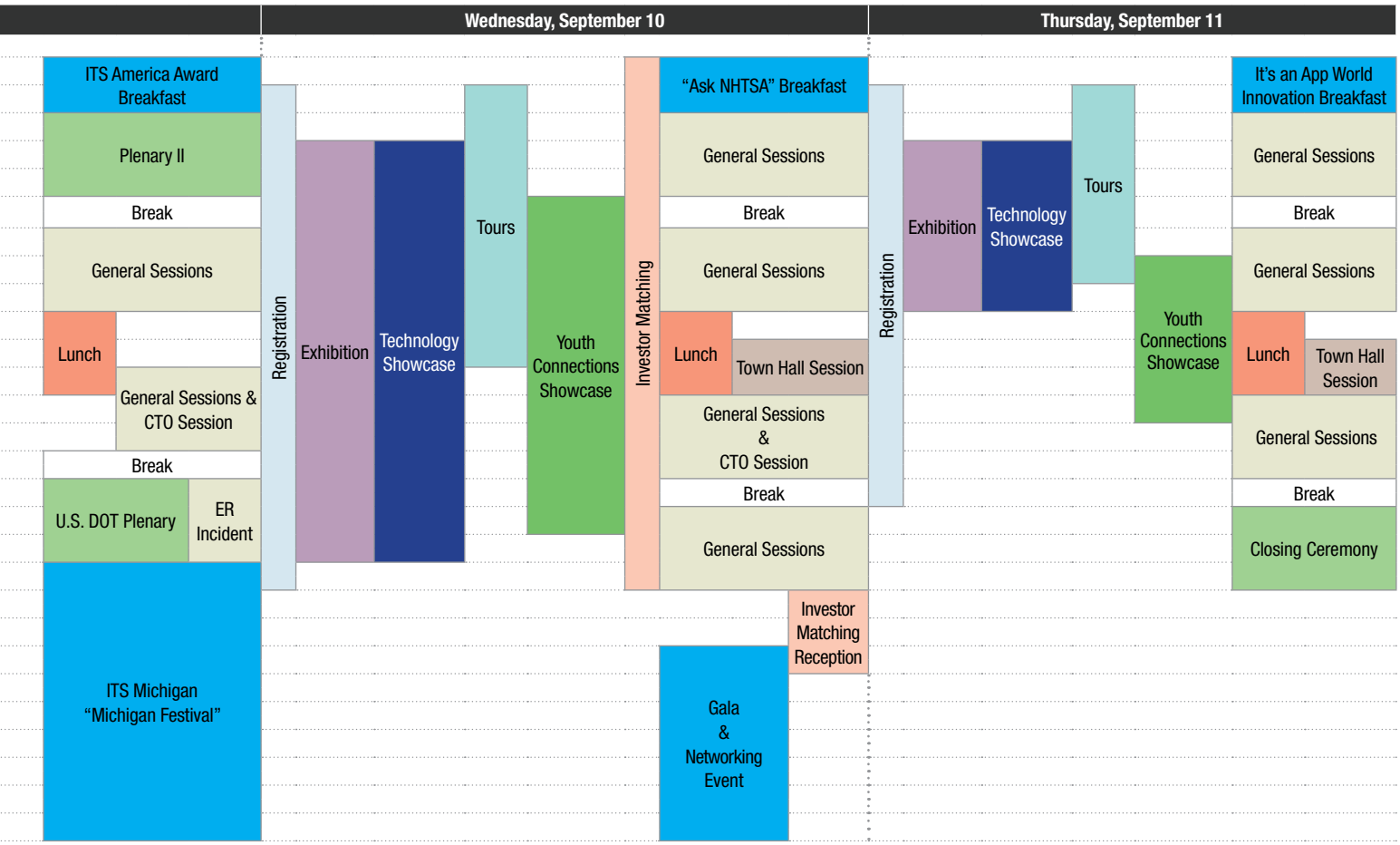
Plenary (**PL**)	Annual Meeting (**AM**)	INT (**INT**)	Youth Connections Showcase (**YC**)
CTO Summit (**CTO**)	Executive (**ES**)	Special Interest (**SIS**)	Emergency Response Day (**ER**)
Town Hall (**TH**)	IBEC (**IBEC**)	Technical/Scientific (**TS**)	

Monday, September 8

8:30 AM - 10:00 AM	**PL1:** Reinventing Policy to Support the New ITS *Cobo Grand Ballroom A*	**ES01:** Roadmap to Automated Transportation *Cobo 410 B*	**SIS02:** Apps, Innovation, & Regulation* *Cobo 140 C*	**SIS03:** Sharing of Road & Traffic Information *Cobo 140 D*	**SIS05:** International Standard Issues for Green ITS (G-ITS) *Cobo 140 F*	**SIS06:** Cooperative ITS for Now & the Next (Round 3) *Cobo 141*	**SIS07:** Deployment of Cooperative ITS Services: A Global Affair *Cobo 110 A*	**SIS08:** Data Driven Traffic Modeling & Analysis *Cobo 142 C*	**AM01:** Sustainable Transportation Performance Measures: Best Practices *Cobo 113 B*	**TS01:** Using Simulation for Traffic Management Applications *Cobo 353*	**TS02:** Local Based Travel Information *Cobo 354*	**TS03:** Connected Vehicle Deployment & Field Tests *Cobo 355*
10:00 AM - 10:15 AM	Break											
11:30 AM - 1:30 PM	Lunch											
12:00 PM - 2:30 PM	**CTO1:** Visions of ITS in 2025 *Cobo Grand Ballroom A*											
2:30 PM - 3:00 PM	Break											
3:00 PM - 4:30 PM	**CTO2:** Connectivity & Automation *Cobo 142 A*	**ES02:** International Cooperation to Spread & Expand ITS *Cobo 410 B*	**SIS04:** EU-US Task force* *Cobo 114 A*	**SIS09:** Big Data & the Connected Vehicle – When We Build It, The Data Will Come *Cobo 140 B*	**SIS10:** Connected / Automated Vehicles – The Safety Case *Cobo 140 C*	**SIS11:** The Economics & Partnerships Driving Connected Cars *Cobo 140 D*	**SIS12:** ITS Applications in Truck Parking Availability *Cobo 140 E*	**SIS13:** State-of-the-Art in Self-Driving Vehicles *Cobo 140 F*	**SIS14:** Integrated Corridor Management – The Next Step *Cobo 141*	**SIS15:** Lean Demand Management for Smart Parking *Cobo 142 C*	**SIS16:** Open Data in Public Transport* *Cobo 110 A*	**AM02:** 5.9 GHz Dedicated Short Range Communications* *Cobo 116 B*

Tuesday, September 9

8:30 AM - 10:00 AM	**PL2:** Reinventing Business Models for the New ITS *Cobo Grand Ballroom A*											
10:00 AM - 10:30 AM	Break											
10:30 AM - 12:00 PM	**ES03:** Worldwide Deployment of Cooperative Systems *Cobo 410 B*	**SIS17:** Japan-US-European Collaborative Research on the Use of Probe Data *Cobo 140 C*	**SIS18:** Driving Behavior by Aged People & Its Countermeasure Using KUSANONE ITS *Cobo 140 D*	**SIS19:** Wireless Power: Transforming Transportation *Cobo 140 E*	**SIS20:** Is There Vehicle Automation without Accurate Maps? *Cobo 140 F*	**SIS21:** International Harmonization of Cooperative ITS Security Policy *Cobo 141*	**SIS22:** Establishment of a Results Driven Investment Program for ITS *Cobo 142 C*	**SIS23:** Accelerating Service Deployment – Strategy View from the Traffic & Transport Industry *Cobo 140 B*	**SIS24:** Predictive Map-Based Applications Reaching the Market & Perspectives Towards Automated Driving *Cobo 321*	**INT01:** Arabian Gulf Region Showcase *Cobo 413 A*	**AM04:** Integrated Corridor Management *Cobo 113 B*	**AM05:** Transportation Management Centers – Past, Present, & Future *Cobo 116 B*
12:00 PM - 1:30 PM	Lunch											



- Automated Transportation
- Big Data and Open Data
- Connected Vehicles & Cooperative Systems
- Driver Behavior and Support
- Economic Growth
- Freight
- International Cooperation to Expand ITS
- ITS Rules and Standards
- New Mobility
- Public Transit
- Smart Cities
- Sustainability
- Traffic Management
- Traffic Safety

* **Full title has been shortened**

TS04: V2X Technology Evaluations *Cobo 356*	**TS05:** Cooperative ITS System Standards *Cobo 357*	**TS06:** Policy Changes to Connected & Autonomous Vehicles *Cobo 358*	**TS07:** Routing Strategies for Improved Eco-Driving *Cobo 359*	**TS08:** Smart Parking 1 *Cobo 411 A*	**TS09:** New Frontiers for ITS *Cobo 411 B*	**TS10:** Safety Based Sensor Systems *Cobo 412 A*	**TS11:** Recent Developments in Data Collection *Cobo 412 B*	**IS01:** Interactive 1 *Cobo Wayne & Oakland Hallsi*				
AM03: Commercial Vehicle & Freight Move-ment Technol-ogies…* *Cobo 113 B*	**TS12:** Implications of Driver Behavior on ITS System Performance *Cobo 353*	**TS13:** Big Data Management & Analysis *Cobo 354*	**TS14:** Evaluating Deployments *Cobo 355*	**TS15:** Innovations in Bus Vehicle Systems *Cobo 356*	**TS16:** Signal & Arterial Applications *Cobo 357*	**TS17:** ITS, Sustainability & Business Cases *Cobo 358*	**TS18:** Challenges for Smart Cities *Cobo 359*	**TS19:** Route Guidance Systems *Cobo 411 A*	**TS20:** Road User Charging 1 *Cobo 411 B*	**TS21:** Traffic Safety Applications *Cobo 412 A*	**TS22:** Driver Support Systems on Personal Devices *Cobo 412 B*	**IS02:** Interactive 2 *Cobo Wayne & Oakland Halls*
ER01: Emergency Response Day Special Session* *Cobo 330 A*	**TS23:** Driver Assist Systems *Cobo 353*	**TS24:** Road User Charging 2 *Cobo 354*	**TS25:** Data Sharing & Open Source Data *Cobo 355*	**TS26:** Driving Safety *Cobo 356*	**TS27:** Congestion & Demand Management *Cobo 357*	**TS28:** ITS Weather Systems 1 *Cobo 358*	**TS29:** Developments in Probe Data Collection *Cobo 359*	**TS30:** Public Transportation Modeling *Cobo 411 A*	**TS31:** Innovative Traffic Data Collection & Analysis Strategies *Cobo 411 B*	**TS32:** Innovations in Video & Aerial Sensing *Cobo 412 A*	**TS33:** National Efforts to Plan & Deploy ITS Systems *Cobo 412 B*	**IS03:** Interactive 3 *Cobo Wayne & Oakland Halls*

Session at a Glance continues on next page >

Plenary (**PL**)	Annual Meeting (**AM**)	INT (**INT**)	Youth Connections Showcase (**YC**)
CTO Summit (**CTO**)	Executive (**ES**)	Special Interest (**SIS**)	Emergency Response Day (**ER**)
Town Hall (**TH**)	IBEC (**IBEC**)	Technical/Scientific (**TS**)	

Tuesday, September 9 *(continued)*

1:00PM - 2:30 PM	**CT03:** Future Mobility *Cobo 142 A*	**ES04:** Improving Traffic Safety Through ITS *Cobo 410 B*	**SIS25:** Mega City ITS Programs, New York City's Approach *Cobo 140 D*	**SIS26:** Technical Challenges for Adoption of Self-Driving Vehicles *Cobo 140 E*	**SIS27:** Visualizing an Integrated Transport System* *Cobo 140 F*	**SIS28:** Meet the New Mobility Industry Vanguard: A View from the Trenches *Cobo 141*	**SIS29:** Smart Intelligent Traffic Intersections for the Connected Vehicle of the Future *Cobo 142 C*	**SIS30:** Evaluation Methodology of the Effects of ITS on CO2 Emissions & its Application *Cobo 140 B*	**SIS31:** Liability Issues for the Connected & Autonomous Vehicle *Cobo 140 C*	**SIS32:** Creation of Next Generation Mobility Society by Circulating ITS Big Data* *Cobo 321*	**AM06:** V2X & Automated Vehicles: the Upcoming Intersection *Cobo 116 B*	**AM07:** U.S. DOT ITS Strategic Plan *Cobo 113 B*
2:30 PM- 3:00 PM	Break											
3:00 PM - 4:30 PM	**PL3:** U.S. DOT Plenary: Building the Foundation for our Connected Society *Cobo Grand Ballroom A*											

Wednesday, September 10

8:30 AM - 10:00 AM	**ES05:** ITS & the New Mobility *Cobo 410 B*	**IBEC1:** Will There be an Attractive/Convincing Cost Benefit Case Introducing C2X & Automated Vehicle Driving…* *Cobo 110 B*	**SIS33:** Big Data in Transit: Are Our Heads in the Clouds? *Cobo 140 E*	**SIS34:** Minimum Quality Requirements for Driving Event Video Recorder to Secure Safe Driving Management *Cobo 140 F*	**SIS35:** Human Factor Challenges of Vehicle Automation *Cobo 141*	**SIS36:** Revolutionizing Performance Assessment of the Roadway Network Through Data & Analytics *Cobo 142 C*	**SIS37:** State of the Art & Benefits of Real Time Information for Commercial Vehicles *Cobo 140 B*	**SIS38:** TPEG Traffic Services Worldwide *Cobo 140 C*	**SIS39:** Saving Lives with Photo Enforcement *Cobo 140 D*	**SIS40:** Leveraging ITS & the Internet of Things to Enable Complete Streets *Cobo 110 A*		
10:00AM - 10:30 AM	Break											
10:30 AM - 12:00 PM	**ES06:** Big Data & Open Data – the Big Issues *Cobo 410 B*	**ES07:** ITS: Essential for Sustainability *Cobo 321*	**SIS41:** ITS for Global Mega Events *Cobo 140 F*	**SIS42:** Impacts & Opportunities for Self-Driving Vehicles *Cobo 141*	**SIS43:** What is the Most Important Point in ITS Deployment in Mega-Cities of Asia-Pacific? *Cobo 142 C*	**SIS44:** Seamless Mobility – ITS in Smart Cities, an Asia Pacific perspective *Cobo 110 A*	**SIS45:** Cooperative ITS Vehicle Architecture & Applications *Cobo 140 B*	**SIS46:** Applying Intelligent Transportation Systems to Cross Border Issues *Cobo 140 C*	**SIS47:** National ITS Associations – Driving Mobility Deployment *Cobo 140 D*	**SIS48:** Smart Parking: The Foundation & Accelerator for the Smart City & Connected Car *Cobo 140 E*	**AM10:** Organizational Success at Local Chapters *Cobo 116 B*	**AM11:** Private Consumer Applications & the Growing Request to Interface to Public Traffic Systems *Cobo 113 B*
12:00 PM- 1:30 PM	Lunch											
12:30 PM - 1:30 PM	**TH01:** Prime Time for Big Data *Cobo Atrium*											
1:30 PM - 3:00 PM	**CT04:** Government & Policy *Cobo 142 A*	**ES08:** Innovation for Mobility in Smart Cities *Cobo 410 B*	**IBEC2:** Evaluation & the Technology Showcase *Cobo 110 B*	**SIS49:** Global Perspectives: Cooperative Energy Efficient Applications *Cobo 140 F*	**SIS50:** Towards Automation Deployment *Cobo 141*	**SIS51:** Public Transport in Mega Cities *Cobo 142 C*	**SIS52:** Road Authorities' Strategies for Moving from Co-operative Systems to Automation *Cobo 110 A*	**SIS53:** Evaluation of Costs & Benefits of Cooperative Systems & Automation Applications *Cobo 140 C*	**SIS54:** International Harmonization of the Interoperability Assessment Processes *Cobo 140 D*	**SIS55:** Implications of SHRP 2 Reliability Research for ITS *Cobo 140 E*	**SIS56:** Using Information & Telecommunication Technologies for Improving ITS Operations *Cobo 140 B*	**AM12:** Future of Fleet Automation *Cobo 116 B*
3:00 PM- 3:30 PM	Break											
3:30 PM - 5:00 PM	**ES09:** Driving Freight Efficiency with ITS *Cobo 410 B*	**IBEC3:** Evaluation of Connected Vehicles *Cobo 110 B*	**SIS57:** Telematics Services & Dynamic Re-charging Solutions for Market Integration of Electric Vehicles *Cobo 140 F*	**SIS58:** The Importance of the Back-office – Addressing the Payment Processing & Reconciliation Challenge *Cobo 141*	**SIS59:** Paving the Way for Self-Driving Cars: Legislative & Legal Issues…* *Cobo 142 C*	**SIS60:** Radiocommunication Technologies for Advanced ITS *Cobo 110 A*	**SIS61:** Vehicle to Infrastructure Considerations for Transportation Agencies *Cobo 140 C*	**SIS62:** Strategy of Practical Implementation of V-I Cooperative Systems for Traffic Accidents Avoidance *Cobo 140 D*	**SIS63:** Government Initiatives in Vehicle Automation *Cobo 140 E*	**SIS64:** Data, Directives & Regulations: How Crowd Sourced Data is Helping Agencies Meet New Rules *Cobo 140 B*	**AM14:** Autonomous Vehicles: Savior of the Western World or an Over-Hyped Version of New Cars? *Cobo 111 A*	**AM15:** Finding Alpha in Smart Technologies* *Cobo 113 B*

Thursday, September 11, 2014

8:30 AM - 10:00 AM	**ES10:** Ways to Achieve Smoother Traffic *Cobo 410 B*	**IBEC4:** Evaluation of Highly Automated Driving & Truck Platooning *Cobo 110 B*	**SIS65:** Can We Take Traveler Information to the Next Level…*? *Cobo 140 F*	**SIS66:** How Can We Design Better Freight Transport ITS Solutions? *Cobo 141*	**SIS67:** Updates of Connected Vehicle in China *Cobo 142 C*	**SIS68:** Cooperative Driving Technology & Standardization *Cobo 110 A*	**SIS69:** Ecall Advancement to Deployment – Global Perspective *Cobo 140 B*	**SIS70:** Advanced Connected Vehicle Technology – Security & Certification *Cobo 140 C*	**SIS71:** Application of Big Data to Transportation Operations & Planning *Cobo 140 D*	**SIS72:** Automated Driving Technology Research in Japan* *Cobo 140 E*	**AM16:** The Sharing Economy & Shared Mobility *Cobo 113 B*	**AM17:** ITS Improvements that Lead to Safety* *Cobo 116 B*
10:00 AM - 10:30 AM	Break											
10:30 AM - 12:00 PM	**ES11:** ITS & Economic Growth *Cobo 410 B*	**INT02:** Africa – A New Growth Area for ITS *Cobo 413 A*	**SIS73:** Future Mobility Beyond 202X *Cobo 140 F*	**SIS74:** Towards Deployment of Automated Vehicles* *Cobo 141*	**SIS75:** Traffic Sensing by Various Manners *Cobo 142 C*	**SIS76:** The Impacts of Connected Vehicle Technology on Transportation Agency Operations *Cobo 140 B*	**SIS77:** Modeling Connected Vehicle Applications & Dynamic Management Strategies* *Cobo 140 C*	**SIS78:** Collision of the Physical & Cybersecurity in an ITS World *Cobo 140 D*	**SIS79:** SMART Tolling for Achieving Future Green Road *Cobo 140 E*	**SIS80:** Security for Connected Vehicles *Cobo 110 A*	**AM18:** Human Factors Leading to Safe & Connected Automation *Cobo 113 B*	**AM19:** DSRC Spectrum Sharing *Cobo 116 B*
12:00 PM- 1:30 PM	Lunch											
12:30 PM - 1:30 PM	**TH02:** How Automated Driving Will Shape the Future of Our Transportation System *Cobo Atrium*											
1:30 PM - 3:00 PM	**ES12:** Global Harmonization of ITS Rules & Standards *Cobo 410 B*	**IBEC5:** Evaluating Benefits & Business Cases for Cooperative ITS (connected vehicles) *Cobo 111 A*	**SIS82:** Maritime Informatics – How ITS Is Transforming The Shipping Industry *Cobo 141*	**SIS83:** Adaptive Signal Control Technologies in the World of Connected & Automated Vehicles *Cobo 142 C*	**SIS84:** The Internet of the Auto: Clouds, Crowds & Traffic *Cobo 110 A*	**SIS85:** Accessibility 360 – ITS-enhanced Accessible Transportation Services *Cobo 140 C*	**SIS87:** From Vertical to Horizontal to Connected Clouds *Cobo 140 E*	**SIS88:** The Connected Car Becomes the Ultimate Mobile Device *Cobo 140 B*	**AM20:** New Urban Mobility: Is This the Death of Public Transit as we Know it? *Cobo 113 B*	**AM21:** Deployment Incentives Report *Cobo 110 B*	**TS110:** ITS Developments in Evolving Markets *Cobo 358*	**TS111:** Future Directions in Automated Driving *Cobo 359*
3:00 PM- 3:30 PM	Break											

- Automated Transportation
- Big Data and Open Data
- Connected Vehicles & Cooperative Systems
- Driver Behavior and Support
- Economic Growth
- Freight
- International Cooperation to Expand ITS
- ITS Rules and Standards
- New Mobility
- Public Transit
- Smart Cities
- Sustainability
- Traffic Management
- Traffic Safety

* **Full title has been shortened**

ER02: Emergency Response Day Special Session* *Cobo 330 A*	**TS34:** Cooperative Systems Research & Development *Cobo 353*	**TS35:** Real Time Information for Mulitmodal ITS Applications *Cobo 354*	**TS36:** Policy & Strategy Benefits & Lessons Learned in ITS *Cobo 355*	**TS37:** Aspects of Multimodal Public Transportation *Cobo 356*	**TS38:** Commercial Vehicle Enforcement Strategies *Cobo 357*	**TS39:** Management of Shared & Electric Vehicles *Cobo 358*	**TS40:** Human-Machine Interface Evaluation *Cobo 359*	**TS41:** Tools for Providing Statewide & Metro Area Enforcement Incident & Emergency Management *Cobo 411 A*	**TS42:** Road User Charging 3 *Cobo 411 B*	**TS43:** Planning & Deployment *Cobo 412 A*	**TS44:** Connected Vehicle Applications *Cobo 412 B*	**IS04:** Interactive 4 *Cobo Wayne & Oakland Halls*
AM08: Transportation System Management & Operations *Cobo 116 B*	**TS45:** Energy & Emission Impacts of ITS *Cobo 111 A*	**TS46:** Advanced Vehicle Systems *Cobo 353*	**TS47:** Cooperative Vehicle Field Test Programs *Cobo 354*	**TS48:** ITS Weather Systems 2 *Cobo 355*	**TS49:** Multimodal Signal Priority Management *Cobo 356*	**TS50:** Development in Road Pricing & Parking Management *Cobo 357*	**TS51:** Eco-Drive Management Systems *Cobo 358*	**TS52:** Corridor Based Travel Information *Cobo 359*	**TS53:** Safety System Sensors *Cobo 411 A*	**TS54:** Vehicle Detection & Location by Video, Sensors, & Probes *Cobo 411 B*	**TS55:** Development of New ITS Algorithms *Cobo 412 A*	
YC01: Education & Training Needs for Emerging ITS Technologies *Cobo*	**TS56:** Road User Charging 4 *Cobo 412 A*	**TS57:** ITS Applications to Improve Traffic Flow *Cobo 412 B*	**TS58:** Improving Intersection Safety with ITS *Cobo 353*	**TS59:** Advanced Traffic Control Strategies *Cobo 354*	**TS60:** Commercial Vehicle Operators *Cobo 355*	**TS61:** Vehicle & Driver Communication Systems *Cobo 356*	**TS62:** Cooperative Systems *Cobo 357*	**TS63:** Innovations in Rural ITS *Cobo 358*	**TS64:** Developments in Connected & Autonomous Vehicle Systems *Cobo 359*	**TS65:** Driver Assistance Systems *Cobo 411 A*	**TS66:** Advanced Corridor Management 1 *Cobo 411 B*	**IS05:** Interactive 5 *Cobo Wayne & Oakland Halls*
AM13: FHWA Infrastructure Deployment Guidance *Cobo 113 B*	**TS67:** Application of SmartPhone Technology to Improve Mobility *Cobo 411 A*	**TS68:** New Uses for Roadside Equipment *Cobo 411 B*	**TS69:** Advanced Traffic Management 1 *Cobo 412 A*	**TS70:** Strategic Issues in ITS Development *Cobo 353*	**TS71:** Transit Signal Priority *Cobo 354*	**TS72:** Driver Simulation *Cobo 355*	**TS73:** Probe Data Applications & Evaluations *Cobo 356*	**TS74:** Navigation System Travel Information *Cobo 357*	**TS75:** Innovative Approaches for ATIS *Cobo 358*	**TS76:** Innovations in Network Management *Cobo 359*	**IS06:** Innovative ITS Based Safety Systems Interactive Session *Cobo Wayne & Oakland Halls*	
TS77: Sensing the Vehicle Environment *Cobo 411 B*	**TS78:** Measuring Performance *Cobo 412 A*	**TS79:** Multi Object Collision Avoidance *Cobo 412 B*	**TS80:** Traffic Control *Cobo 353*	**TS81:** Academic Issues on Public Transportation *Cobo 354*	**TS82:** Innovations in Traffic Data Collection & Analysis *Cobo 355*	**TS83:** Crash Data Analysis *Cobo 356*	**TS84:** Security Challenges for ITS Systems *Cobo 357*	**TS85:** New Developments in Probe & Floating Car Data Processing *Cobo 358*	**TS86:** Communication Platforms for Vehicles & Drivers *Cobo 359*	**TS87:** Intelligent Work Zones *Cobo 411 A*		
TS88: Collision Avoidance Systems *Cobo 411 B*	**TS89:** Developing an ITS Workforce *Cobo 412 A*	**TS90:** Innovative Traffic Management Concepts & Systems *Cobo 412 B*	**TS91:** Video Detection & Processing *Cobo 353*	**TS92:** Regional & Statewide Integrated ITS Deployments *Cobo 354*	**TS93:** Data Management Strategies *Cobo 355*	**TS94:** Integrated Corridor Operations *Cobo 356*	**TS95:** Traveler Information Challenges *Cobo 357*	**TS96:** Driver Behavior & Cognition of Signage and Markings *Cobo 358*	**TS97:** New Techniques to Analyze, Predict, & Mitigate Traffic Safety *Cobo 359*	**TS98:** Implications & Assessment of Automated Driving *Cobo 411 A*		
TS100: Incident Management in Large Metropolitan Areas *Cobo 411 B*	**TS101:** Smart Parking 2 *Cobo 412 A*	**TS102:** Innovative Uses of Probe Data *Cobo 412 B*	**TS103:** Reduction of Fuel Consumption *Cobo 353*	**TS104:** Collision Warning Systems *Cobo 354*	**TS105:** New Trends in Detection *Cobo 355*	**TS106:** Developments in ITS Based Safety Systems *Cobo 356*	**TS107:** Vehicle & Driver Models & Algorithms *Cobo 357*	**TS108:** Advanced Corridor Management 2 *Cobo 358*	**TS109:** User Behavior *Cobo 359*	**TS99:** Advanced Traffic Management 2 *Cobo 411 A*	**IS07:** Advanced Traffic Management Interactive Session *Cobo Wayne & Oakland Halls*	
TS112: Challenges in Big Data Management *Cobo 411 A*	**TS113:** Tools to Improve Transit Services *Cobo 411 B*	**TS114:** Regional Examples of ITS Deployments *Cobo 412 A*	**TS115:** Development of Cooperative ITS Architecture *Cobo 353*	**TS116:** Standardization *Cobo 354*	**TS117:** Innovative Modeling Techniques *Cobo 355*	**TS118:** Radio Communications for ITS *Cobo 356*	**TS119:** Autonomous Driving Systems *Cobo 357*					

ITS AMERICA LEADERSHIP CIRCLE

The ITS America Leadership Circle brings together transportation and technology visionaries from the public, private, and academic sectors as thought leaders on behalf of ITS America and the broader transportation community. Together, the Leadership Circle develops strategic approaches to improve the nation's transportation systems through innovative ITS solutions. The Leadership Circle will play an active role at the ITS World Congress, participating in meetings throughout the week and sponsoring the Freight Track. The Leadership Circle will meet over a closed dinner on Sunday, September 7th.

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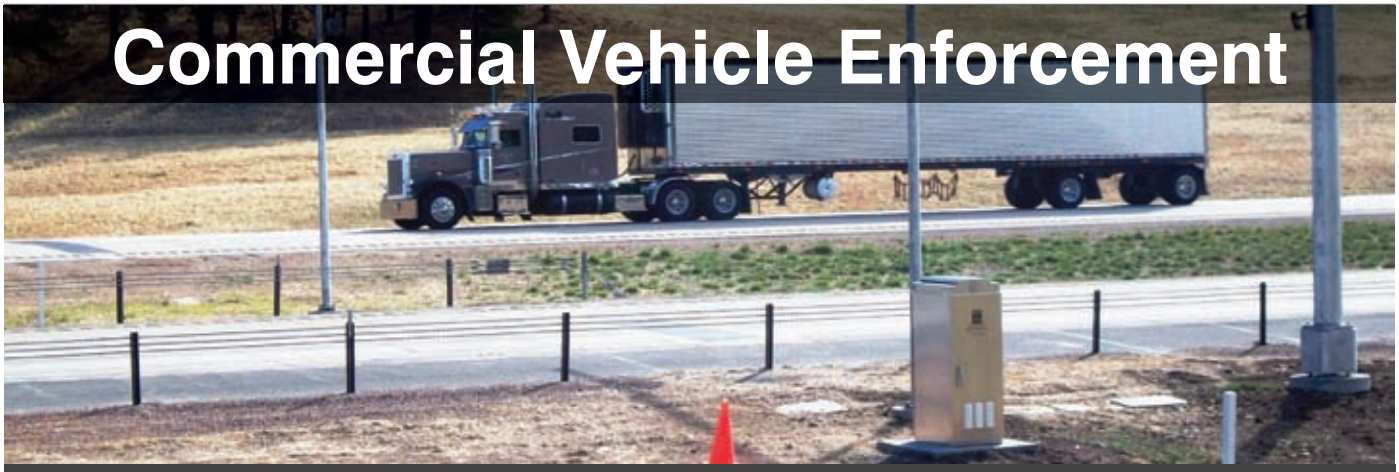

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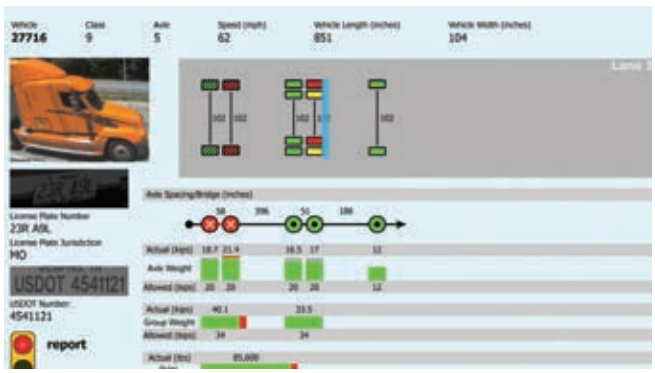

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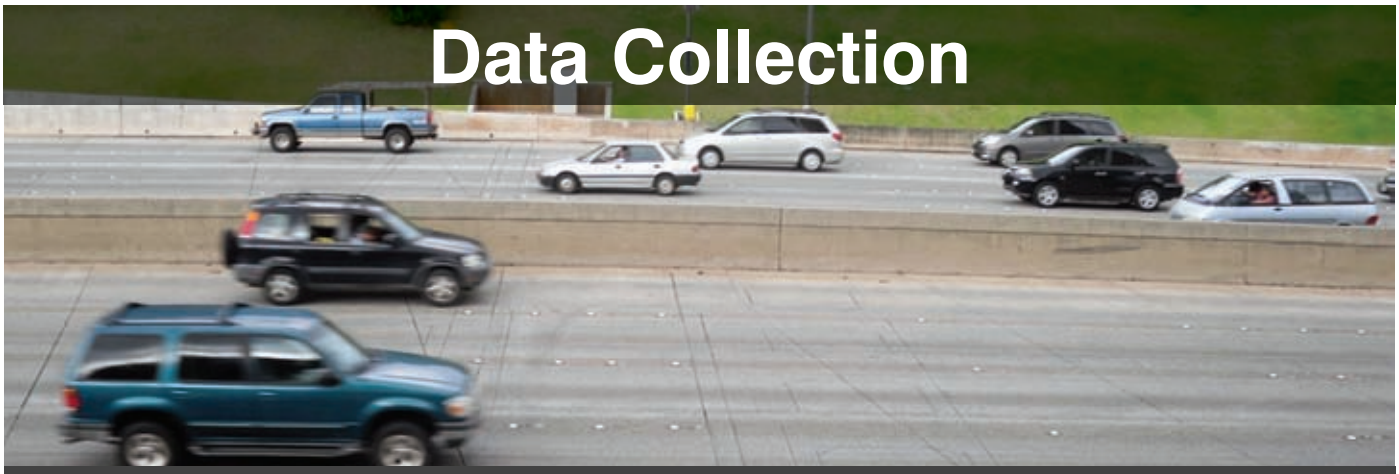
Data Collection



VI²M™ Data Collection with VectorSense™ Sensor Suite

Tomorrow's Sensor Technology Today

DETECT.

Sensors & Systems

- Portable, permanent, and non-intrusive sensors
- Weather and ice detection
- Low-power, industrial-grade electronics
- Machine vision
- Flexible input and output interface
- Single, super single, dual, and tire footprint

MEASURE.

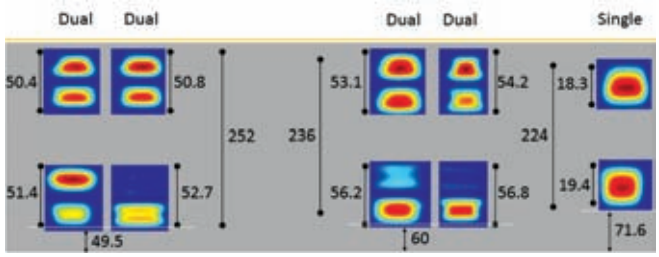
Vehicle Data

- Volume, Occupancy, and Speed (VOS)
- Weight and classification
- Real-time monitoring
- Tire pressure, vehicle footprint, and lane discipline

ANALYZE.

Enterprise Software & Data Services

- Enhanced decision making
- Multiple user remote access
- Real-time vehicle reports
- Custom and user-defined reports
- Local or cloud hosting
- High quality traffic data and WIM analysis
- Traffic Monitoring Guide (TMG) reporting



VI²M™

Tire pressure, vehicle footprint, and lane discipline

irdinc.com

Fleet Management

FLEETSPHERE™ Software

A Powerful Tool for Fleet Management

DETECT.

Internet Based Asset Tracking

- Unauthorized vehicle use
- Schedule and route violations
- Unsafe driving behavior
- Emergency in vehicle
- Unplanned/unauthorized stops

MEASURE.

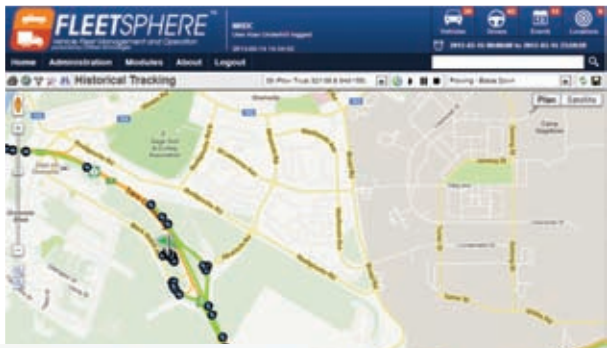
Vehicle Monitoring

- Fuel consumption
- Time at stops
- Revenue miles
- Working hours
- Response time

ANALYZE.

Extensive Reporting Module

- Route performance
- Job productivity
- Vehicle utilization
- Maintenance costs
- Overtime expenses



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Bridge Monitoring & Safety

VI²M™ Bridge Systems with VectorSense™ Sensor Suite

Tomorrow's Sensor Technology Today

DETECT.

Real-time Screening

- Weigh-In-Motion (WIM), dimensioning, speed and classification
- Real-time screening and tracking
- Machine vision and image capture
- Identify vehicles from hot lists
- Statistical traffic data
- Single, super single, dual, and tire footprint

MEASURE.

Vehicle Weight/Bridge Protection

- Identify over-weight, over-height, and over-dimension vehicles approaching bridges
- Automated diversion and image capture of non-compliant vehicles

ANALYZE.

Loading Assessment/Asset Management

- Output data for further analysis
- Monitor changes in traffic over time, including class and weight
- Temporary studies (portable/temporary systems)
- Live load monitoring
- Multiple presence statistics
- Data for bridge design and maintenance

ird PAT Traffic

irdinc.com

Security & Access Control

VI²M™ Security Systems with VectorSense™ Sensor Suite

Tomorrow's Sensor Technology Today

DETECT.

Authorized Vehicles

- Machine vision
- Automated Vehicle Identification (AVI)
- License Plate Reader (LPR)
- Under-Vehicle Surveillance System (UVSS)
- Weigh-In-Motion (WIM)
- Static and portable weighing
- Vehicle dimensioning and over-height detection
- Vehicle identification and tracking

MEASURE.

Scanning and Dimensioning

- Reduce idle time
- Automate screening and sorting
- Improve efficiency and customer service
- Vehicle footprint

ANALYZE.

Optimize Security Operations

- Increase efficiency
- Expedite compliant and authorized users
- Integrate complementary operations

ird PAT Traffic

irdinc.com

Maintenance & Service

CUSTOMER DRIVEN™

DETECT.

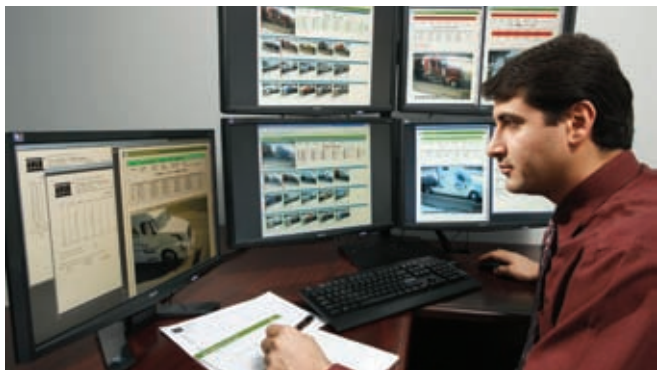
Operations Management

- On-site and remote diagnostics
- Scheduled preventative maintenance
- Site assessment and design recommendations
- Self-diagnostics and notification
- Maintenance On-line Management System (MOMS)

MEASURE.

Monitoring and Autocalibration

- Remote monitoring
- 24/7 continuous operations
- Sensor and system health



ANALYZE.

Data Services

- Verification and validation
- Application Service Provider (ASP)
- Reliability, performance analysis and reporting
- Customer support and training

Intelligent Transportation Systems with Environmental Benefits

IRD's ITS technologies reduce fuel consumption and emissions, and increase mobility and safety. By keeping vehicles moving smoothly and efficiently, IRD's Intelligent Transportation Systems (ITS) contribute to significant greenhouse gas emission reductions and system improvements.

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High Level Policy Roundtable

Sunday, September 7, 2:00 p.m. – 2:30 p.m. Reception | **Cobo 311 B reception**

Sunday, September 7, 2:30 p.m. – 4:00 p.m. Roundtable | **Cobo 310 A/B**

The High Level Policy Roundtable brings together policy leaders from around the world to discuss global and local transportation issues. At the Roundtable, policy leaders will discuss their thoughts, ideas and plans for making use of ITS-enabled solutions with regard to current technologies and economic conditions with other transportation ministers. Now a regular feature of the ITS World Congress, the Roundtable offers policymakers an important opportunity to advance the deployment of Intelligent Transportation Systems through international coordination and knowledge transfer among transportation leaders. Viewing of the Roundtable discussion is open to World Congress attendees.

Sponsored by

HNTB

AASHTO
THE VOICE OF TRANSPORTATION

Keynote Speaker
Robert Slimp, CEO, HNTB Corporation

Moderator
Bud Wright, Executive Director, AASHTO, USA

Kirk Steudle, Director, Michigan DOT, USA

Town Hall Sessions

TH01 – Prime Time for Big Data

Wednesday, September 10, 12:30 p.m. – 1:30 p.m. | **Cobo Atrium**

Sponsored by URBANINSIGHTS

Nearly every element of the transportation system produces voluminous quantities of data. Vehicle telematics systems generate data on vehicle operation, condition, incidents, and often location. Taxis produce data on location, pick-up, and delivery. Public transit systems generate data on scheduling, routes, and location of transit vehicles. Traffic control systems produce data on traffic speeds and volumes, system performance, and incidents. Freight vehicles create data on pick-up, trip, delivery status and route and tolling systems produce volume and speed data, while smart parking applications monitor parking availability and pricing. Even VMT pricing schemes are interested in miles traveled by zone, road class and perhaps time of day.

These data are controlled by a range of private and public entities whose policies for access, and business models, vary. In a limited number of cases, open data policies are followed. In many cases, data are being monetized and form the basis of new transportation enterprises. Generally speaking, the use of such data is in its infancy.

This Town Hall will present the case that we are rapidly approaching prime time for big data in transportation. Big data represents a new, differentiated set of transportation values for individual travelers as well as businesses across the industrial spectrum. Big data also represents a common set of values — safety, traffic efficiency, energy, environmental sustainability, and economic development — in a way that has not been possible prior to the current technological age.

Who will represent the individual, as well as the collective, interests in the roll-out of big data in transportation? How will value be created, and will we have sufficiently stable business models? How will we deal with the risks inherent in creating reliable information from multiple data streams? And what milestones do we envisage in deploying big data?

Moderator
Dean Garfield, President & CEO, ITI, USA

Speakers
Wade Rosado, Director of Analytics, Urban Insights, USA

Bryan Mistele, Co-Founder, President & Chief Executive Officer, INRIX, USA

Chris Bax, Managing Director, Cubic ITMS Ltd., UK

Detlef Sadlau, Infrastructure & Cities Sector Mobility and Logistics Division Road and City Mobility, Siemens AG, Germany

Jun Sato, Vice President, Telematics Services Dept., Innovation Business Unit, Fujitsu Limited, Japan

Randell Iwasaki, Executive Director, Contra Costa Transportation Authority, USA

TH02 – How Automated Driving Will Shape the Future of Our Transportation System

Thursday, September 11, 12:30 p.m. – 1:30 p.m. | **Cobo Atrium**

Sponsored by Texas Instruments

Advances in autonomous vehicle technology have captured the imagination of the public, however, the creation of a fully-functioning automated, connected transportation system is more difficult to envision. Challenges to the successful deployment of automation include realizing the types of technologies and services that users will respond to in the marketplace, collaborating the work of the private sector, road managers, and cities, liability and privacy issues, implementing standards and regulations, determining the need for global standards, and integrating automation with mixed traffic.

From advances around sensors and connectivity in vehicles, automation-friendly infrastructure, and smart parking, to data-driven management of roadway systems, payment for mobility services, the seamless connection of transportation modes, and the immediate satisfaction of delivery on demand — the ITS community has a critical role to play in constructing the underlying "system" aspect of automated transportation.

This Town Hall will examine how ITS will serve to create the path from today's legacy transportation system to a highly automated system. What new ITS functions may be required to support increasing levels of automation and how can the ITS industry help accelerate the deployment of automation?

Moderator
Joe White, Global Auto Editor, The Wall Street Journal, USA

Speakers
Fernando Mujica, Director for Autonomous Vehicles R&D, Texas Instruments, USA

Christian Rousseau, Strategic Expertise Leader for Mobility and Transport Systems, Renault SAS, France

Gary Smyth, Executive Director, Global Research & Development, General Motors R&D, USA

Derek Caveney, Manager, Integrated Vehicle Systems, Toyota Motor Engineering & Manufacturing North America (TEMA), USA

Doug Patton, Executive Vice President, Engineering, and North American Chief Technology Officer, DENSO International America, Inc., USA

Frank Foersterling, Sales & Portfolio Innovations, Interior Electronics Solutions, Continental Automotive GmbH, Germany

Plenary Sessions

PL1 – Reinventing Policy to Support the New ITS

Monday, September 8, 8:30 a.m. – 10:00 a.m.

Cobo Grand Ballroom A

Sponsored by Ford

As more vehicles hit the road and more people flock to cities, how will personal mobility evolve? Join us for a special keynote conversation with Bill Ford, Executive Chairman of Ford Motor Company and Robert Safian, Editor-in-Chief of *Fast Company* magazine. How will auto manufacturing, vehicle ownership and even driving itself adapt to the profound challenges ahead? Where will manufacturers and stakeholders throughout the transportation ecosystem work together? What are some of the policy issues? Henry Ford saw the car as a means to enable freedom: how will that vision endure?

Following, senior officials from the Americas, Asia-Pacific, and Europe will present their visions of policy initiatives to accelerate the deployment of intelligent transportation systems to promote economic growth and improve the performance of existing transport infrastructure. They will also explore ways, to make better use of private sector investment and innovation to meet the needs of future generations.

After the panel discussion, several awards will be issued including the prestigious Hall of Fame award and a MobiPrize. See page 138 for more.

Keynote Speakers

Mr. Bill Ford, Executive Chairman, Ford Motor Company, USA

Mr. Robert Safian, Editor-in-Chief, *Fast Company* magazine, USA

Moderator

Dr. Peter Sweatman, Director, University of Michigan Transportation Research Institute, USA

Speakers

Dr. Bambang Susantono, Vice Minister, Ministry of Transport, Indonesia

Mr. Fotis Karamitsos, Deputy Director General, DG MOVE, European Commission, Belgium

Dr. Klaus Schierhackl, Board of Directors, ASFINAG, Austria

Mr. Ananth Prasad, Secretary, Florida DOT, USA

Mr. Keith Parker, General Manager/CEO, Metropolitan Atlanta Rapid Transit Authority, USA

PL2 – Reinventing Business Models for the New ITS

Tuesday, September 9, 8:30 a.m. – 10:00 a .m.

Cobo Grand Ballroom AA

Sponsored by verizon

Lowell McAdam, Chairman and CEO of Verizon Communications, will keynote the opening session, discussing how the convergence between digital technology and the physical world is creating a platform for innovation that will make transportation systems smarter, safer, and greener.

Following the keynote, leaders from around the world will discuss strategies for implementing ITS policies. They will consider new technologies and business practices that could revolutionize transport while spurring job creation and global economic growth. Government initiatives to encourage private sector innovators to invest in the research, development and deployment of intelligent transportation solutions to solve local, national and global transportation challenges will also be discussed.

At the conclusion of the panel discussion, the World Congress will issue its prestigious Industry Hall of Fame award and the Michigan MobiPrize for Michigan Entrepreneurs who, through their innovative New Mobility technology, service, product and/or infrastructure are contributing to the Michigan region and economy.

Keynote Speaker

Mr. Lowell C. McAdam, Chairman and CEO, Verizon Communications, USA

Moderator

Mr. Dana Christensen, Deputy Laboratory Director, Science and Technology, National Renewable Energy Laboratory,

Speakers

Mr. John Sun, President, ITS Taiwan, Chinese-Taipei

Mr. Xiaojing Wang, Chair, China ITS Alliance, China

Mr. Leon Daniels, Managing Director, Surface Transport, Transport for London, UK

Mr. Michel Labardin, Vice-President in charge of Transport, Bordeaux Urban Community, France

Mr. Ogi Redzic, Vice President, Connected Driving, HERE, USA

Mr. Timothy Leuliette, President and CEO, Visteon, USA

PL3 – U.S. DOT Plenary: Building the Foundation for our Connected Society

Tuesday, September 10, 3:00 a.m. – 4:30 p.m.

Cobo Grand Ballroom A

U.S. DOT Modal Administrators and key officials will discuss the Department's accomplishments over the past year, preview their top priorities and opportunities for the coming year, and talk about the role of ITS in helping meet their agency missions today and in the future.

Moderator

Mr. Gregory D. Winfree, Assistant Secretary for Research and Technology, Office of the Secretary, U.S. DOT, USA

Speakers

Mr. David J. Friedman, Acting Administrator, National Highway Traffic Safety Administration, U.S. DOT, USA

Mr. Gregory G. Nadeau, Deputy Administrator, Federal Highway Administration, U.S. DOT, USA

Ms. Therese W. McMillan, Deputy Administrator, Federal Transit Administration, U.S. DOT, USA

CTO Summit Sessions

CTO Plenary – Visions of ITS in 2025

Monday, September 8, 12:00 p.m. – 2:30 p.m. | **Cobo Grand Ballroom A**

Sponsored by DELPHI

- What will the ITS world look like in 2025?
- How could ITS affect future urban mobility?
- Will ITS transform the business model for automakers or suppliers?
- What will be governments' roles in the future of ITS?
- Will standards and regulations lead or follow market implementation?
- What would be your "big wish" for ITS in 2025?

Keynote Speaker
Rodney O'Neal, CEO, Delphi Automotive, USA

Moderator
Jeffrey Owens, CTO, Delphi Automotive, USA

Speakers
James A. Buczkowski, Director, Global Electrical/Electronic Systems Engineering, Ford Motor Company, USA

Kristen Tabar, VP, Toyota Technical Center, USA

Ahmad Bahai, CTO, Texas Instruments, USA

Jon Lauckner, CTO, General Motors Co., USA

Tim Yerdon, Global Director of Innovation, Visteon Corporation, USA

Ralf Lenninger, Senior Vice President, Interior Electronic Solutions, Continental Automotive, Germany

Frank Paluch, President, Honda R&D Americas, Inc., USA

CTO2 – Connectivity and Automation

Monday, September 8, 3:00 p.m. – 4:30 p.m. | **Cobo 142 A**

Sponsor: University of Michigan Mobility Transformation Center

- How does connectivity advance the deployment of automation?
- Managing risk in the deployment of driverless vehicles
- What technological challenges remain?
- How does the technology create compelling value for the consumer/user?
- What kind of cross-sectoral partnerships will be needed?
- What role needs to be played by state and federal governments?
- If not the driver, who is in the "driver's seat"? Who leads? — The business case? — The supporting infrastructure?
- What will it take to move from a generally-agreed tipping point to a massively-deployed new mobility system?

Moderator
Peter Sweatman, Director, UMTRI, USA

Speakers
Jean-Francois Tarabbia, Senior VP R&D, Valeo, France

Danny Shapiro, Sr. Director, Automotive, NVIDIA, USA

Kenneth Mihalyov, Chief Innovation Officer, Government and Transportation Sector (GTS) Xerox Services, USA

Hiroyuki Watanabe, Project Director, Government of Japan, Japan

Doug Patton, Senior Vice President, Engineering, DENSO, USA

CTO3 – Future Mobility

Tuesday, September 9, 1:00 p.m. – 2:30 p.m. | **Cobo 142 A**

Sponsored by TRANSCORE

- What choices will consumers have with regarding their personal mobility? Will they be able to afford them? Will new mobility strategies, e.g., Zip Cars, thrive?
- Are there Future Mobility differences among light, medium and heavy duty vehicles? How will the movement of goods and services change? How will intermodal transportation develop in Future Mobility scenarios? How quickly?
- What are the key drivers and success determinants? What factors need to be addressed for the consumer to embrace Future Mobility?
- What advantages and disadvantages does the "Internet of Things" create?

Moderator
Andrew Brown, VP and Chief Technologist, Delphi Automotive, USA

Speakers
Kelly Gravelle, EVP and CTO, TransCore, USA

Tanvir Arfi, Robt Bosch LLC, USA

Rainer Speh, CTO of Sector "Infrastructure & Cities", Siemens AG, Germany

Thomas Form, Head of Electronics and Vehicle Research, Volkswagen AG, Germany

Chris Boronni-Bird, Vice President, Strategic Development, Qualcomm, USA

Mark Bartolomeo, Connected Solutions, Verizon Enterprise Solutions, USA

CTO4 – Government and Policy

Wednesday, September 10, 1:30 p.m. – 3:00 p.m. | **Cobo 142 A**

- What policies, guidelines and mandates need to be put in place for this sector to be successful?
- The issues related to liability and driver responsibility are formidable. What is needed to address them? Who should take the lead?
- Is harmonization across the regions, OEMs and suppliers really needed? If so, how can it best be achieved?
- How is cybersecurity best addressed in order to protect safety critical systems?

Moderator
David St. Amant, President and COO, Econolite Group, Inc., USA

Speakers
Andrew Smart, Director, SAE, USA

Richard McKinney, CIO, U.S. DOT, USA

XiaoJing Wang, Director, China National Intelligent Transport System Center Ministry of Transport, China

Mary Brown, Director, Government Affairs, Cisco, USA

Klaas Rozema, CTO, Imtech Traffic & Infra, Netherlands

Paul D. Rogers, Director, U.S. Army Tank Automotive Research Development and Engineering Center, USA

Executive Sessions

ES01 – Roadmap to Automated Transportation

Monday, September 8, 10:30 a.m. – 12:00 p.m. | **Cobo 410 B**

Session Track: ■ Automated Transportation

Automated Transportation has been drawing a lot of attention recently as a key discussion topic. While the private sector has engaged in fierce competition in R&D, it is quite important to work with a certain consensus across the sectors and regions towards an efficient and promising deployment of these technologies.

This session will address the major issues such as social impacts, liability, standards, technology integration, and deployment scenarios in order to envision a roadmap to automated transport.

Moderator
Masao Nagai, President, Japan Automobile Research Institute, Japan

Speakers
Dominique Doucet, Product Marketing and External Communication Director, Valeo, France

Tagui Ichikawa, Counsellor, Cabinet Secretariat, Japan

Malcolm Dougherty, Director, California DOT, USA

Angelos Amditis, Research Director, Institute of Communication and Computer Systems (ICCS), Greece

ES02 – International Cooperation to Spread and Expand ITS

Monday, September 8, 3:00 p.m. – 4:30 p.m. | **Cobo 410 B**

Session Track: ■ International Cooperation to Expand ITS

In recent years, numerous initiatives to develop cooperative systems have been undertaken by many countries, and international cooperation is growing in importance as a way to achieve the future spread and expansion of ITS. Trilateral cooperation between Europe, the U.S., and Japan has, in the past, consisted of mutually linked activities intended to deal with the challenges of R&D, standardization, etc. of ITS.

At this session, speakers will introduce the newest initiatives and policy trends concerning ITS in each country, at the same time as they discuss the present state of such initiatives, and responses necessary to accelerate future research and development and actual deployment of ITS under public-private collaboration.

Moderator
Greg Winfree, Assistant Secretary for Research and Technology, U.S. DOT, USA

Speakers
Takumi Yamamoto, Director, Road Bureau, Ministry of Land, Infrastructure, Transport and Tourism, Japan

Reuben Sarkar, Deputy Assistant Secretary for Transportation, Department of Energy, USA

Speaker from EU - European Commission

Russell T. Shields, Chair, Ygomi LLC, USA

ES03 – Worldwide Deployment of Cooperative Systems

Tuesday, September 9, 10:30 a.m. – 12:00 p.m. | **Cobo 410 B**

Session Track: ■ Connected Vehicles & Cooperative Systems

How can global deployment of cooperative mobility be achieved on a massive scale? Over the last decade, government funded research, carried out in conjunction with automakers, suppliers and the traffic industry, has successfully knit together technological, policy, economic and consumer considerations. Panelists in this session discuss how to achieve practical wide-spread deployment using harmonized standards and a coordinated regulatory environment. This harmonization would help realize cooperative technology's potential to completely recast vehicles, drivers and infrastructure into an integrated system capable of achieving important outcomes — safety, traffic efficiency, emissions and energy consumption.

Moderator
Jim Keller, Principal Engineer/Manager, Honda R&D Americas, Inc., USA

Speakers
Fotis Karamitsos, Acting Deputy Director-General, DG MOVE, European Commission, Belgium

John Capp, Director, Electrical & Controls Systems Research & Active Safety Technology Strategy, General Motors Research & Development, USA

Klaas Rozema, Chief Technology Officer, Imtech Traffic & Infra, The Netherlands

Seung-Hwan Lee, Head, Planning & Strategies Bureau, ITS Korea, Korea

ES04 – Traffic Safety through ITS

Tuesday, September 9, 1:00 p.m. – 2:30 p.m. | **Cobo 410 B**

Session Track: Traffic Safety

With improved vehicle safety and road design, the number of casualties has fallen for vehicle occupants, but the reduction has been smaller for pedestrians, cyclists, and other vulnerable users. Contributions of ITS technologies, such as automated vehicles and advanced driver assistance systems, as well as cooperative driving systems, are still very important for working towards the goal of zero fatalities. Speakers will discuss how ITS safety technologies could be deployed, developing the institutional systems and promoting user acceptance, software security, and system reliability. How to transfer these technologies to emerging countries and areas will also be considered.

Moderator
Mohammed Hikmet, Vice President ITS New Zealand, Head of New Zealand, Delegation ISO TC 204, Managing Director HMI Technologies Ltd., New Zealand

Speakers
Masanobu Taniguchi, Special Assistant for the Director, Road Transport Bureau, Ministry of Land, Infrastructure, Transport and Tourism, Japan

Gerry Conover, Managing Director, PRC Associates, USA

Christian Schumacher, Head of ADAS, expert in ADAS and Automated Driving, Continental, Germany

Drue Freeman, Sr. Vice-President Marketing & Sales Automotive, NXP Semiconductors, USA

ES05 – ITS and the New Mobility

Wednesday, September 10, 8:30 a.m – 10:00 a.m. | **Cobo 410 B**

Session Track: New Mobility

Technology is fundamentally changing the way people experience and use transportation. New transport elements such as cooperative driving, vehicle automation, car sharing, tailored vehicle designs, individual transporters, heavy vehicle platoons and information technology could change the definition of transportation. Connected users accessing connected vehicles enable the transition from an automotive economy to an economy of mobility services. Panelists consider how this shift impacts land use, city planning, and the auto industry, and how it may create a new transportation economy.

Moderator
Joseph Kopser, Co-Founder, CEO, RideScout, USA

Speakers
Kian Keong Chin, Director, Land Transport Authority, Singapore

Kaye Ceille, President, Zipcar, USA

Steve CH Lin, Chief Business Officer, Int'l Center, ITRI, Chinese-Taipei

Cees de Wijs, CEO, SWARCO, Austria

ES06 – Big Data and Open Data — the Big Issues

Wednesday, September 10, 10:30 a.m. – 12:00 p.m. | **Cobo 410 B**

Session Track: Big Data and Open Data

ITS applications based around Big Data can help the movement of people and goods through real-time awareness of flows, transport service timetables and the performance of traffic systems. They may also eliminate vehicle breakdowns by delivering preventive maintenance warnings and reduce unnecessary journeys by delivering up-to-the-minute logistics information. Successfully harnessing Big Data will maximize the availability of transport assets, enhance services to increase revenue and manage capacity, and improve the end-to-end customer experience. But to turn promise into successful delivery, key issues such as personal privacy, data ownership, access to data, and revenue sharing must be considered by policy makers and implemented by suppliers.

Moderator
Claire Depré, Head of Unit Intelligent Transport Systems, DG MOVE, European Commission, Belgium

Speakers
Kenichiro Yoshida, Director, Electric Vehicle and Advanced Technology Office, Ministry of Economy, Trade and Industries, Japan

Abbas Mohaddes, President & CEO, Iteris, Inc., USA

Dirk Wollschläger, General Manager Global Automotive Industry, IBM, Germany

Ralf Lenniger, Senior Vice President Interior Electronics Solutions, Continental Automotive GmbH, Germany

Matthew Cole, Executive Vice President and Deputy for Strategy, Business Development & Diversification, Cubic Transportation Systems, USA

ES07 – ITS: Essential for Sustainability

Wednesday, September 10, 10:30 a.m. – 12:00 p.m. | **Cobo 321**

Session Track: ■ Sustainability

The potential consequences of climate change for natural, social, health, and economic environments are key issues in setting policies to sustain future growth. ITS have proven successes as part of a move toward a more sustainable lifestyle, but the transport system is currently a significant contributor to greenhouse gases, noise, and air pollution. Panelists in this session will address issues such as reducing the environmental impact of transport, climate change resilience, defining the ITS value proposition, and changing consumer/end user behavior.

Moderator
Richard Harris, Solution Director, Xerox, UK

Speakers
Rob Fitzpatrick, Director, Infrastructure, Transport & Logistics, NICTA, Australia

Susan Shaheen, Research Director, Innovative Mobility, University of California, Berkeley, USA

Speaker from Europe

Xiaojing Wang, Chief Engineer, Research Institute of Highway, MOT, China

ES08 – Innovation for Mobility in Smart Cities

Wednesday, September 10, 1:30 p.m. – 3:00 p.m. | **Cobo 410 B**

Session Track: ■ Smart Cities

The sustainable development of cities to match the global trend to urbanization requires seamless connectivity built on the integration of policies for water, energy, transport, waste management, and information and communication technologies. This session will address the concept of smart cities with views from the three regions on how to create and support large scale roll-out of innovative transport solutions and new mobility services. The session will look at passenger mobility; supply chains and flows of goods; coordination of passenger, freight and traffic flows; urban planning, policy and technology development; and financial, legal, and institutional issues.

Moderator
Hermann Meyer, CEO, ERTICO - ITS Europe, Belgium

Speakers
Nobuyuki Ozaki, Senior Fellow, Railway & Automotive Systems Division, Social Infrastructure Systems Company, TOSHIBA Corporation

Eric-Mark Huitema, Smarter Transportation Leader Europe, IBM Corporation, Netherlands

Dirk John, CEO Business Unit Road and City Mobility, Siemens, Germany

Anup Sable, Sr. VP & Head, Automotive & Engineering Business, KPIT Technologies Ltd., India

ES09 – Driving Freight Efficiency with ITS

Wednesday, September 10, 3:30 p.m. – 5:00 p.m. | **Cobo 410 B**

Session Track: ■ Freight

The movement of goods matters greatly to economies, and ITS can make a substantial difference in freight and logistics. Freight vehicles could be the early adopters of cooperative driving technology that spurs the connection of all transport nodes. This session examines high-level business and policy considerations of intermodal transport, IT innovations that could benefit logistics, the impact of vehicle automation on freight movement, measures of effectiveness, and how ITS can transform the "last mile" of freight movement to increase overall productivity.

Moderator
Jon Morrison, President & General Manager, Meritor WABCO, USA

Speakers
C. Randal Mullett, Vice President, Government Relations and Public Affairs, Con-way, USA

Jan Hellaker, Vice President, Transport Solutions & Services, Volvo Group Trucks Technology, Sweden

Per-Henrik (PELLE) Nielsen, Vice President & Global Head of Sales & Commercial Management Industry & Society, Ericsson, Denmark

Chris Koniditsiotis, Chief Executive Officer, Transport Certification Australia, Australia

ES10 – Ways to Achieve Smoother Traffic

Thursday, September 11, 8:30 a.m. – 10:00 a.m. | **Cobo 410 B**

Session Track: ■ Traffic Management

Traffic management in urban areas and the information services supporting mobility of persons and goods is being reinvented with the Information Society, expanding public and private information networks, growing demands for personalized services, and greater connectivity among people, vehicles, and infrastructures.

This session will address not only the possible innovation in traffic management but also the necessity for cooperation among political leaders and the transport industry to achieve smoother traffic and more optimized use of infrastructure.

Moderator
Takashi Oguchi, Professor, Institute of Industrial Sciences, University of Tokyo, Japan

Speakers
Nick Cohn, Head of Business Development, TomTom, Netherlands

David St. Amant, President/COO, Econolite, USA

Kazuki Yamamoto, Director for ITS, National Police Agency, Japan

George Gillespie, Assistant Director of Land and Environmental Services, Glasgow City Council, UK

ES11 – ITS and Economic Growth

Thursday, September 11, 10:30 a.m. – 12:00 p.m. | **Cobo 410 B**

Session Track: ■ Economic Growth

ITS deployment is vital for improved transport efficiency, safety, sustainability, mobility, accessibility, and environmental performance. With resources continuing to be limited, a central issue is linking investment with performance. Understanding the contribution that ITS makes to society and to economic recovery and growth is key to obtaining continued investment. Attracting investment means developing new strategies and funding regimes. We also need to train and develop people to give them the skills needed to secure the benefits of ITS. Panelists will consider current funding and the contribution of ITS to economic growth, and review the criteria for further ITS investment.

Moderator
Eric Sampson, Senior Program Adviser, ERTICO - ITS Europe, Belgium

Speakers
Elly Sinaga, Director General, Ministry of Transportation, Indonesia

John Casesa, Senior Managing Director, Investment, Guggenheim Securities, LLC, USA

Josef Czako, Vice President, Kapsch, TrafficCom, Austria

John Barton, Deputy Executive Director, Texas DOT, USA

ES12 – Global Harmonization of ITS Rules and Standards

Thursday, September 11, 1:30 p.m. – 3:00 p.m. | **Cobo 410 B**

Session Track: ■ ITS Rules and Standards

Countries across the globe are developing cooperative ITS systems. With global industries and linked economies, international cooperation is of growing importance for ITS expansion. Harmonization of ITS standards already benefits from trilateral cooperation among Europe, the United States, and Japan. Harmonization of vehicle and communications regulations is a logical next step. In this session, panelists discuss policy trends, accelerate future R&D, deployment of ITS, and share the present state of international partnerships.

Moderator
Dick Schnacke, Vice President, Industry Relations, TransCore, USA

Speakers
Shin Morishita, Director, Ministry of Internal Affairs and Communications, Japan

Kenneth Leonard, Director, ITS Joint Program Office, U.S. DOT, USA

Björn Bunte, Director of Business Development, CETECOM, Germany

Hwa-seung Yang, Deputy Director, Ministry of Land, Infrastructure and Transport, Korea

Zoran Stančič, Deputy Director General, DG Connect, European Commission, Belgium

Special Interest Sessions

SIS02 – Apps, Innovation, and Regulation: Protecting the Public Interest in the Midst of Disruptive Competition

Monday, September 8, 10:30 a.m. – 12:00 p.m. | **Cobo 140 C**

Session Track: ■ New Mobility

Smartphone-enabled applications have catalyzed significant change in the transportation ecosystems in more than 100 cities around the world. How these apps should or should not be regulated is one of the most pressing questions of the day. Competition in the for-hire transportation space has historically been anemic, and policymakers the world over have struggled with how to improve delivery of services to consumers and encourage economic opportunity for drivers, all while protecting the riding public. With the advent of apps like Uber, should policymakers lower barriers to entry, set regulatory floors to protect consumers, protect existing operators from disruptive competition, or some combination? This panel draws on decades of experience from leading policymakers from around the world, as well as leading app companies.

Organizer
Ashwini Chhabra, Head of Policy Development & Community Engagement Uber Technologies, USA

Speakers
Prof. Allan Fels, Former Chairman, Victoria (AUS) Taxi Inquiry, Australia

Phil Evans, Deputy Chairman, UK Competition and Markets Authority, UK

Karen Cameron, Principal Consultant, An Tua Nua Consulting Inc., Canada

Ashwini Chhabra, Head of Policy Development & Community Engagement, Uber Technologies, USA

SIS03 – Sharing of Road and Traffic Information

Monday, September 8, 10:30 a.m. – 12:00 p.m. | **Cobo 140 D**

Session Track: ■ Traffic Management

Road and traffic information in ITS field covers the much particular information beyond road and traffic information themselves, such as the detailed shape of the road, the pertaining data, the possible events related to the road and the traffic, and so on.

These information are expected to play much more important roles especially in the new service field of autonomous car, disaster support, and multi-modal support. And by using these information in an effectively way, the environment-friendly and safe trip services are expected to be developed to the society. However, many road and traffic information are generally collected by road administrators and traffic operators and private companies.

For enabling more advanced and suitable services, such road pertinent information is expected to be open and enable for secondary use. In this session, we would like to discuss about the framework activity towards these information-sharing for encouraging the practical implementation of the new services.

Organizer
Makoto Otsuki, Senior Vice President ITS Japan, Japan

Moderator
Satoru Nakajo, Principal Consultant, ITS Business Group, Mitsubishi Research Institute,Inc, Japan

Speakers
Runar Soeraasen, Business Development Manager, ITS Norway, Norway

Christian Kotscher, CEO, MetroTech Net, Inc., USA

Sorawit Narupiti, Associate Professor, Chulalongkorn University, Thailand

Kazuhiko Akahori, Staff, Transportation Infrastructure Department, Shizuoka Prefecture, Japan

SIS04 – EU-US Task force — Collaborative Efforts in Sustainability Applications

Monday, September 8, 3:00 p.m. – 4:30 p.m. | **Cobo 114 A**

Session Track: ■ Sustainability

Around the globe many programs acknowledge the potential of cooperative technology to cut down fuel consumption and emission. The EU-US task force on ITS cooperation — Working Group for Sustainability Applications focuses on energy efficient traffic signal operations. The aim of the working group is to research the operational scenarios and assess commonalities and differences in message sets, data transmission techniques, and system algorithms. This research includes evaluation of simulation and field study experiments, eventually leading to a joint demonstration at the ITS World Congress in Bordeaux in 2015. The session is arranged according to the white papers that have been published by the working group. Each presenter will highlight the main findings from one of these white papers.

Organizer
Jaap Vreeswijk, Product Manager Research Imtech Traffic & Infra, Netherlands

Moderator
Marcia Pincus, Program Manager ITS Joint Program Office, U.S. DOT, USA

Speakers
Steven Shladover, Research Engineer. California PATH, ITS Berkeley, University of California, USA

Balaji Yelchuru, Lead Associate, Booz Allen Hamilton, USA

Thomas Benz, Director ITS Research, PTV GROUP, Germany

James Misener, Independent Consultant, USA

Matthew Barth, Professor of Engineering, University of California - Riverside, USA

André Perpey, Manager, Geoloc Systems, France

SIS05 – International Standard Issues for Green ITS (G-ITS)

Monday, September 8, 10:30 a.m. – 12:00 p.m. | **Cobo 140 F**

Session Track: ITS Rules and Standards

This session will present the international standards and/or harmonization issues for development and deployment of Green ITS (G-ITS) utilizing sustainable transport modes, infrastructure, transport facilities, and users. In developing G-ITS technologies for the future worldwide, emphasis should be placed on the requirements which include CO2 emissions-free green transport systems ensuring efficient multi-modal connectivity. A concept to build a green transport system which is called G-ITS has been under discussion in Korea utilizing ITS technology for operation and management of the system and also in ISO/TC204 discussing what issues to be harmonized in order to being international standards. This special interest session will be continued with the same title as it was organized in the 20th ITS World Congress in Tokyo, 2013.

Organizer & Moderator
Young-Jun Moon, Director The Korea Transport Institute, Korea

Speakers
Andrew Mehaffey, Manager, Roads and Maritime Services, Australia

Young-Jun Moon, Director, The Korea Transport Institute, Korea

Koorosh Olyai, Senior Principal, Stantec, USA

SIS06 – Cooperative ITS for Now and the Next (Round 3)

Monday, September 8, 10:30 a.m. – 12:00 p.m. | **Cobo 141**

Session Track: Connected Vehicles & Cooperative Systems

This session is organized as a round 3 session after Vienna 2012, SIS 83, Tokyo 2013 HIS18. As in the session in 2013, speakers will discuss the experiences of Cooperative ITS systems from real world and field operational testing, and how these ITS systems contribute to society from traffic safety or the other point of view. The other discussion point is performance studies like real performances of cooperative ITS systems vs. expected performance. Progress in each region after the World Congress in Tokyo and potentials and advantages for automated vehicle deployment. As the summary of the session, the attendees will discuss the subjects to be resolved for further Cooperative ITS system Deployment and Connected Automated Vehicles development.

Organizer & Moderator
Takahiko Uchimura, Vice President ITS Japan, Japan

Speakers
Toshio Yokoyama, Senior Chief Engineer, Technology Development Division 12, Honda R&D Co., Ltd., Japan

Michael Shulman, Technical Leader, Ford Active Safety Research, Ford Motor Company, USA

Teresina Herb, BAST: Federal Highway Research Institute, Germany

Jaap Rozema, CTO, Imtech Traffic & Infra, The Netherlands

Kunio Segawa, Chairperson, ITS Green Safety Implementation and Promotion Subcommittee, ITS Japan/, Staff Manager, Technical Research Dept. Mazda Motor Corporation, Japan

SIS07 – Deployment of Cooperative ITS Services: A Global Affair

Monday, September 8, 10:30 a.m. – 12:00 p.m. | **Cobo 110 A**

Session Track: International Cooperation to Expand ITS

The deployment of Cooperative ITS services is still at its infancy and limited by barriers such as high prices, user acceptance and, uncertain business models. Despite the current availability of products in the market and the, clear demand of services by the users (especially fleet operators), the penetration of C-ITS is not sufficient and not yet fully interoperable, across different regions. These challenges cannot be effectively undertaken at a regional level, but require a coordinated approach across the globe. Cooperation agreements are already in place at political levels and major players, are targeting global markets. However, numerous issues remain pending and necessitate a resolute approach. This session is in the format of a panel with active involvement of the audience, and will look into current implementation initiatives and, mass-deployment perspective across the globe, with high level representatives from USA, Japan, and Europe. Expert speakers will present concrete examples from current deployment programs and debate on the most viable solutions to, overcome barriers such as involvement of users, financial viability and interoperability.

Organizer & Moderator
Jean-Charles Pandazis, Head of Sector EcoMobility, ERTICO ITS Europe Belgium

Speakers
André Perpey, Manager, Geoloc Systems, France

Brian Cronin, Team Leader, ITS Research and Demonstration, ITS Joint Program Office, U.S. DOT, USA

Evangelos Mitsakis, Associate Researcher, Centre for Research and Technology Hellas - Hellenic Institute of Transport, Greece

James Sayer, Program Manager, Safety Pilot Test Conductor & Associate Research Scientist, University of Michigan Transportation Research Institute, USA

Hideyuki Kanoshima, Senior Researcher, ITS Division, National Institute for Land and Infrastructure Management, Japan

SIS08 – Data Driven Traffic Modeling and Analysis

Monday, September 8, 10:30 a.m. – 12:00 p.m. | **Cobo 142 C**

Session Track: ■ Big Data and Open Data

Traffic networks are complicated and dynamic systems. Every day traffic delay affects the lives of millions of people all over the world. Not only do these issues impact individuals they also have a detrimental effect on the economy; amounting to somewhere between 1% and 2% of GDP in developed countries. Clearly something needs to be done.

In many jurisdictions surface streets and motorways are heavily instrumented in order to provide data for automated traffic management systems. However, these systems tend to act tactically and respond to sensor inputs that occur 'now'. They rarely look ahead to try and predict how traffic patterns will evolve into the future. In this session we will examine traffic models that are built directly from observed traffic data. Such Data Driven models naturally tend to focus on 'interesting' events but not necessarily those to which a human observer may be drawn. They also provide straightforward methods for predicting future traffic states. Ultimately, these predictions may be used to inform tactical traffic management systems of potential issues before they become visible to the road user or traffic manager and thus help to keep traffic flowing in an ever more crowded world.

Organizer & Moderator
Glenn Geers, Technology Director NICTA, Australia

Speakers
Chen Cai, Researcher, NICTA, Australia

Andrew Mehaffey, Principal Manager Intelligent Transport Systems, NSW Roads and Maritime Services, Australia

James Sayer, Research Scientist, University of Michigan Transportation Research Institute, USA

Balaji Prabhakar, Professor, Stanford University, USA

Karen Davis, General Manager, Urban Engines, USA

SIS09 – Big Data And The Connected Vehicle — When We Build It, The Data Will Come

Monday, September 8, 3:00 p.m. – 4:30 p.m. | **Cobo 140 B**

Session Track: ■ Big Data and Open Data

The advances of adaptive driver assistance systems, autonomous vehicle systems alone may be enough to propel the ITS community into the ever changing and fast-paced world of big data. When we build it, the data, will come…are we ready?! Recent forecasts by industry leading analysts suggest that there will be more than 150 million actively connected, vehicles on roads (globally) by 2020, generating over 11 petabytes of data on an annual basis, or about 30 terabytes a day! The IT industry, has coined the "V's" of big data in an effort to classify the challenges that managing and consuming big data represent — Volume, Velocity, Variety, Veracity, Validity, Volatility, and most importantly Value. Depending on how you "fit" in the connected vehicle construct, you may value &, prioritize the "V's" differently than others. Which ones are most important to you?

Organizer & Moderator
Jason JonMichael, National Technology Leader HNTB Corporation, USA

Speakers
Dave Miller, Chief Security Officer, Covisint, USA

Lee Stogner, PMP, Chair, IEEE Transportation Electrification Initiative, USA

Christopher K. Wilson, CEO, Vehicle Data Science, USA

Collin Castle, PE, Connected Vehicle Technical Manager, Michigan DOT, USA

C. Douglass Couto, Principal, Aquila Group, USA

Monali Shah, Innovation & Strategy, Connected Driving, HERE, USA

SIS10 – Connected/Automated Vehicles — The Safety Case

Monday, September 8, 3:00 p.m. – 4:30 p.m. | **Cobo 140 C**

Session Track: ■ Traffic Safety

The upcoming implementation of V2X communication together with the developments of advanced ADAS in next generation vehicles finally will, enable automatic driving to have the potential to avoid almost 100% of fatalities as well as any other crashes between vehicles, vehicles and, vulnerable persons or with fixed infrastructure installations. This will save hundreds of billions USD (maybe up to 2 Trillion USD) annually! At this very moment, all technological developments are being pushed by the vehicle industry as a matter of customer relationship strategy and, competition between automotive industry. Isn't safety not also the core responsibility of governments of all states? Why do they not push the, mandatory safety functionality as a matter of certification of vehicles? The session shall discuss the role of vehicle manufacturer versus mandatory, safety functions defined by public bodies to ensure zero fatalities as soon as possible in a coordinated way.

Organizer & Moderator
Reinhard Pflliegl, CEO A3PS, Austria

Speakers
Glenn Geers, Technology Director, NICTA, Australia

Derek Caveney, Manager, Toyota Motor Engineering & Manufacturing North America, Inc., USA

Eva Molnar, Director, Division of Transport, United Nations Economic Commission for Europe - UNECE, Switzerland

Tim Johnson, Director, Crash Avoidance and Electronic Controls Research, National Highway Traffic Safety Administration, U.S. DOT, USA

Edward Griffor, Chrysler Technical Fellow, Chrysler Group, LLC, USA

SIS11 – The Economics and Partnerships Driving Connected Cars

Monday, September 8, 3:00 p.m. – 4:30 p.m.

Cobo 140 D

Session Track: ■ Economic Growth

The Internet of Everything will expand markets and will spawn businesses valued at U.S. $14 trillion. One of the key areas of innovation will be in the automotive industry. Studies show that each connected vehicle can create $1,400 in benefits each year. Key stakeholders like automotive manufacturers and suppliers, mobile, telematics and infotainment service providers, and insurance companies and governments recognize the benefits of connecting vehicles, and are designing new business and technology architectures to get a piece of the big connected vehicle pie. This panel will discuss potential win-win business and technology architectures that could help accelerate the broad deployment of vehicle connectivity through cross-industry partnerships.

Organizer & Moderator
Andreas Mai, Director, API Platform Cisco, USA

Speakers
Chris Borroni-Bird, VP Strategic Development, Qualcomm Technologies Inc, USA

James Buczkowski, Henry Ford Technical Fellow & Director Electrical & Electronics Systems Research & Advanced Engineering, Ford Motor Company, USA

Tim Yerdon, V.P. Design, Marketing and Connected Services, Visteon, USA

Dan Kraft, Connected Car Innovation Lead, Allstate Insurance

Kevin Link, GM China, Verizon Telematics, USA

SIS12 – ITS Applications in Truck Parking Availability

Monday, September 8, 3:00 p.m. – 4:30 p.m.

Cobo 140 E

Session Track: ■ Freight

Truck parking availability has been a major concern of the goods movement industry for many years. Safe, secure, and legal parking is needed for truckers to be sufficiently rested for their demanding job over our nation's highways, while at same time, meeting the federally mandated hours of service (HOS) requirements. The broadcast of truck parking availability information to the public and the provision of parking reservations have been advanced as potential solutions addressing concerns related to finding legal and available truck parking. To address these issues, the FHWA and FMCSA have sponsored a series of research and deployment projects across the country to advance the development of the sensing and information delivery systems needed to provide truck drivers with dynamic information on parking availability. This session presents the latest results of research, application, and deployment from high profile projects that have been under active development in several states.

Organizer
Elliot Martin, Ph.D., Assistant Research Engineer Transportation Sustainability Research Center, University of California, Berkeley, USA

Moderator
Robert Arnold, Director, Transportation Management, Office of Operations Federal Highway Administration, U.S. DOT, USA

Speakers
Quon Kwan, Program Manager, Federal Motor Carrier Safety Administration, U.S. DOT, USA

Elliot Martin, Assistant Research Engineer, Transportation Sustainability Research Center, University of California, Berkeley, USA

John Tompkins, Minnesota DOT, USA

Eric Morris, Associate Vice President, HNTB Corporation, USA

Von Lopez-Jacobs, ITS/Traffic Engineer, Gannett Fleming, USA

SIS13 – State-of-the-Art in Self-Driving Vehicles

Monday, September 8, 3:00 p.m. – 4:30 p.m.

Cobo 140 F

Session Track: ■ Automated Transportation

Presentations on the current state-of-the-art vehicles that are under test at various venues. Speakers will talk about their own test vehicles and, focusing on the technology, will answer the question "We would all be operating self-driving cars today in mixed traffic on highways and in cities except for…"

Organizers
Steven Dellenback, Director R&D Southwest Research Institute, USA

Jane Lappin, Program Manager John A. Volpe National Transportation Systems Center, U.S. DOT, USA

Moderator
John Maddox, Associate Administrator for Vehicle Safety Research National Highway Traffic Safety Administration

Speakers
John Capp, Director, Electrical & Controls Systems Research & Active Safety Technology Strategy, General Motors Research & Development, USA

Maarten Sierhuis, Research Director, Nissan Research, USA

Jan Becker, Senior Manager, Engineering Automated Driving, Robert Bosch LLC, USA

Steven Dellenback, Director R&D, Southwest Research Institute, USA

Robert Denaro, Vice President, ADAS, Nokia Corp, USA

SIS14 – Integrated Corridor Management — The Next Step

Monday, September 8, 3:00 p.m. – 4:30 p.m. | **Cobo 141**

Session Track: ■ Traffic Management

As demands on our existing transportation system increase, owners/operators are looking for new tools to improve mobility of people and goods. One such tool is Integrated Corridor Management Systems. Transportation corridors often contain unused capacity in the form of parallel routes, non-peak direction on freeways and arterials, single-occupant vehicles, and transit. Unfortunately, today many of these systems are operated independently from one another. For instance, it is common practice to operate a freeway system independently from an arterial system. Integrated Corridor Management brings all of the partners and assets together to manage them as a system instead of as individual assets. This approach will improve travel time reliability, help manage congestion, and improve information dissemination to motorists. ICM programs will be presented, and the future of ICM will be discussed, as connected vehicle technology changes how our transportation systems are managed.

Organizer
James Barbaresso, Vice President, Intelligent Transportation Systems HNTB Corporation, USA

Moderator
Patrick Johnson, Systems Engineering Manager HNTB Corporation, USA

Speakers
Ushio Komoda, Manager of IT & ITS Planning Division, Toyota Motor Corporation, Japan

Koorosh Olyai, Senior Principal, Stantec, USA

Jeffrey Chernick, Chief Executive Officer, RideAmigos, USA

Robert Sheehan, Program Manager, ITS Joint Program Office, U.S. DOT, USA

Wei-Bin Zhang, Research Engineer, California PATH, University of California - Berkeley, USA

SIS15 – Lean Demand Management for Smart Parking

Monday, September 8, 3:00 p.m. – 4:30 p.m. | **Cobo 142 C**

"Smart Parking" technologies and systems are proving capable of significantly reducing traffic congestion, improving driving safety, and reducing the carbon footprint associated with motor vehicles. Parking guidance and dynamic pricing are keys to achieving these important public policy objectives. And yet, deploying a sensor in every parking space can be expensive. This session will explore how lean demand management techniques are used to leverage smart parking systems in order to achieve policy objectives at a reduced cost. The panelists will identify an actual application being deployed in Berkeley, California and a next phase of LA Express Park in Los Angeles California as well as examples in Europe and Asia/Pacific, using a combination of data analytics, new technologies, and more advanced sensors.

Organizer & Moderator
John Peracchio, Managing Director Peracchio & Company, USA

Speakers
Omno Zoeter, Senior Research Scientist, Xerox Research Center Europe, France

Peer Ghent, Senior Management Analyst, Los Angeles DOT, USA

Eugene Tsyrklevich, CEO, Parkopedia, USA

James Albertine, Vice President, Equity Research - Automotive, Stifel Nicolaus, USA

SIS16 – Open Data in Public Transport: Challenges and Opportunities

Monday, September 8, 3:00 p.m. – 4:30 p.m. | **Cobo 110 A**

Session Track: ■ Public Transit

Within the past five years, more and more transit agencies are making schedule and real-time operational data available to the public. This "open data" provides opportunities for agencies to inform the public in a variety of ways about a transit agency's services. For example, there is significant value to having web-based and mobile applications that are developed by people outside the transit agency — these applications allow riders to more easily navigate public transit systems. In this example, the agency does not bear the costs associated with the application development and encourages innovation in terms of how to present transit information to the public. Open data are being used to create enterprise-facing decision-support tools that can help to optimize operations in real time, improve maintenance and inform capital programs/planning. This session explores the opportunities and challenges associated with using open data to improve transit agency operations and other business functions, and customer information.

Organizer & Moderator
Carol Schweiger, Vice President TranSystems Corporation, USA

Speakers
Chen Cai, Researcher, NICTA, Australia

Marije de Vreeze, Manager ITS Netherlands, Connekt/ITS Netherlands, Netherlands

Sean Barbeau, Principal Mobile Software Architect for R&D, University of South Florida, USA

Dag Gogue, Chief Executive Officer, TransitLabs, USA

SIS17 – Japan-US-European Collaborative Research on the Use of Probe Data

Tuesday, September 9, 10:30 a.m. – 12:00 p.m.

Cobo 140 C

Session Track: ■ Big Data and Open Data

Probe data, which is one type of big data collected in the transportation field, has, against the background of the improvement of ICT, attracted growing attention in recent years as a tool to achieve smoother, safer, and more secure road traffic. And as part of this process, Europe, the U.S., and Japan have conducted joint research on probe data.

At this session, information about each country's most advanced initiatives using probe data will be provided at the same time as the contents, state of progress, and future research plans related to the collaborative research conducted cooperatively by Europe, the U.S., and Japan will be introduced. Speakers will discuss appropriate future directions and international cooperation in the use of probe data.

Organizer
Keiji Hattori, Road Bureau Ministry of Land, Infrastructure, Transport and Tourism, Japan

Moderator
Hironao Kawashima, Emeritus Professor Keio University, Japan, Japan

Speakers
Dale Thompson, Program Manager, ITS Joint Program Office, U.S. DOT, USA

Masahiro Nishikawa, Senior Deputy Director, Road Bureau, Ministry of Land, Infrastructure, Transport and Tourism, Japan

Colette Maloney, Head of Unit "Smart Cities and Sustainability", DG-CONNECT, European Commission

Hideyuki Kanoshima, Senior Researcher, ITS Division, National Institute for Land and Infrastructure Management, Japan

SIS18 – Driving Behavior by Aged People and Its Countermeasure using KUSANONE ITS

Tuesday, September 9, 10:30 a.m. – 12:00 p.m.

Cobo 140 D

Session Track: ■ Driver Behavior and Support

Needless to say, traffic accidents relating to aged drivers or pedestrians are not only big problems in Japan that need to be urgently solved, but are also common concerns around the world. We have discussed the significant association between MRI data and traffic accidents before. Meanwhile, we also proposed countermeasures to prevent accidents through KUSANONE ITS (Regional ITS). We will expect an interesting discussion exploited by the combination of aged driver's performances and KUSANOME ITS.

Organizer
Yasuhiko Kumagai, Professor Kochi University of Technology, Japan

Moderator
Kaechang Park, Visiting Professor Kochi University of Technology, Japan

Speakers
Naoyuki Tamura, Staff, Kochi Prefecture, Japan

Hiroki Asao, Engineer, Sumitomo Electric Industries., Ltd., Japan

Yasuhiko Kumagai, Professor, Kochi University of Technology, Japan

Brian Negus, General Manager, Public Policy, Royal Automobile Club of Victoria (RACV), Australia

Le Hung Lan, Vice President, National Center for Technological Progress (NACENTECH), Ministry of Science and Technology, Vietnam

SIS19 – Wireless Power: Transforming Transportation

Tuesday, September 9, 10:30 a.m. – 12:00 p.m.

Cobo 140 E

Session Track: ■ Sustainability

Considerable progress has been made towards the documentation of the costs and benefits of ITS. The ITS Joint Program Office, the European Union, and other aligned entities (e.g., the Transportation Research Board), have amassed significant amounts of data concerning the impact of different types of ITS deployments. To build on this progress we need further data and the development of tools to enable us to develop results-driven approaches for ITS investment programs. A promising approach would be to develop a clear understanding of the effects of ITS applications and then develop a plan for the evolution of ITS services over a region, over time, location and increasing level of service. This session provides an opportunity to discuss the process for identification and definition of the data, analytic tools, process and decision-making structures needed to support the development and application of a results-driven investment program for ITS within a region.

Organizers
Kevin Heaslip, Assistant Professor Utah State University, USA

Zach Kahn, Director of Business Development WAVE, USA

Moderator
Kevin Heaslip, Assistant Professor Utah State University, USA

Speakers
Vincent Valdes, Associate Administrator Office of Research, Demonstration and Innovation (TRI), Federal Transit Administration, USA

Wesley Smith, Chief Development Officer, WAVE, USA

Rene Zorge, CEO, Proov, Netherlands

SIS20 – Is There Vehicle Automation without Accurate Maps?

Tuesday, September 9, 10:30 a.m. – 12:00 p.m. | **Cobo 140 F**

Session Track: ■ Automated Transportation

Non-withstanding the investment needed on the roads, a shift towards a digital "road infrastructure" is needed including strong cooperation between the vehicles and the infrastructure to collect, update and correct changes to the physical reality. Some countries have already shifted to a completely digital infrastructure for some road attributes like Sweden, where speed limits are not legal if not in the road database. This implies that the digital infrastructure must be reliable and accurate. Even more for automated driving, any future changes in the infrastructure can have a disastrous impact and will need to be carefully planned by the Authorities and make its way to the digital databases in time for the vehicles to see it. The update mechanism will most likely strongly rely on input from the vehicle sensors. Data acquired by the vehicles will need to be communicated to the data aggregators in a harmonized way. The panelists will share their thoughts about the relevance of the "Digital Infrastructure" for the future of vehicle automation.

Organizer & Moderator
Maxime Flament, Head of Sector SafeMobility ERTICO-ITS Europe, Belgium

Speakers
Jun Shibata, Senior Researcher, Japan Digital Road Map Association, Japan

Carl Andersen, Connected Vehicle Program Manager, Federal Highway Administration, USA

Kirk Steudle, Director, Michigan DOT, USA

Vladimir Zhukov, Director of Engineering, Reality Map Solutions, HERE, USA

Maxime Flament, Head of Sector SafeMobility, ERTICO-ITS Europe, Belgium

SIS21 – International Harmonization of Cooperative ITS Security Policy

Tuesday, September 9, 10:30 a.m. – 12:00 p.m. | **Cobo 141**

Session Track: ■ ITS Rules and Standards

The purpose of this special session will be to provide stakeholders with the current status of Cooperative ITS security policy harmonization efforts and solicit feedback on the results-to-date. The session will highlight the process, the progress, and the task group's roadmap for deliverables and presentation to policy makers and C-ITS implementers/operators. Presentations will also highlight the benefits of C-ITS security policy harmonization for a range of audiences.

The session will include government and industry experts from a diverse set of fields: communications security, policy, cryptography, vehicle and infrastructure device experts, and operating agencies. The session will be conducted in the form of brief presentations followed by an interactive discussion between invited experts and the audience.

Organizer
Suzanne Sloan, Transportation Industry Analyst U.S. DOT, Volpe National Transportation Systems Center, USA

Moderator
Knut Evensen, Chief Technologist Q-Free ASA, Norway

Speakers
Suzanne Sloan, Transportation Industry Analyst, U.S. DOT, Volpe National Transportation Systems Center, USA

Vincent Mahieu, European Commission, DG-Joint Research Centre, JRC's Institute for the Protection and Security of the Citizen IPSC, Digital Citizen Security Unit

Stuart Ballingall, Project Director Cooperative ITS, Austroads, Australia

Tom Lusco, Senior Systems Engineer, Iteris, USA

Catherine McGhee, Associate Director for Safety, Operations and Traffic Engineering, VDOT/VCTIR, USA

SIS22 – Establishment of a Results Driven Investment Program for ITS

Tuesday, September 9, 10:30 a.m. – 12:00 p.m. | **Cobo 142 C**

Session Track: ■ Economic Growth

Considerable progress has been made towards the documentation of the costs and benefits of ITS. The ITS Joint Program Office, the European Union, and other aligned entities (e.g., the Transportation Research Board), have amassed significant amounts of data concerning the impact of different types of ITS deployments. To build on this progress we need further data and the development of tools to enable us to develop results-driven approaches for ITS investment programs. A promising approach would be to develop a clear understanding of the effects of ITS applications and then develop a plan for the evolution of ITS services over a region, over time, location and increasing level of service. This session provides an opportunity to discuss the process for identification and definition of the data, analytic tools, process and decision-making structures needed to support the development and application of a results-driven investment program for ITS within a region. The topics to be addressed will include the evaluation of ITS effects, linking regional ITS Architectures to investment plans, data needs and characteristics of the specialized tools required to support results driven investment for ITS.

Organizer & Moderator
Bob McQueen, Vice President, International Business Development, Roadway Sensors Iteris Inc, USA

Speakers
David Wiggin, Director of Industry Marketing, Teradata, USA

Valerie Shuman, Principal, Shuman Consulting Group, USA

Robert Arnold, Director, Transportation Management, Office of Operations, Federal Highway Administration, U.S. DOT, USA

Tim Sylvester, Founder & CEO, Integrated Roadways, USA

SIS23 – Accelerating Service Deployment — Strategy View from the Traffic and Transport Industry

Tuesday, September 9, 10:30 a.m. – 12:00 p.m. | **Cobo 140 B**

Session Track: ■ Economic Growth

This session considers how best to accelerate ITS deployment. The eminent panel of speakers will share their perspectives and insight into future mobility. In particular it will address how recent developments and new thinking can help to overcome barriers to deployment. It also considers the importance and the role of political leadership and how industry can best cooperate with the authorities to ensure sustained operational acceleration. Topics covered will include open data, transport revenue, integrated systems and services and unlocking the potential of the always-connected society.

It includes high-level representatives from Government and key industry members of the ERTICO Traffic and Transport Industry sector platform. The ERTICO Sector Platforms have been established to initiate new activities, develop priorities, technical positions, road maps and project ideas. The Traffic and Transport Industry sector platform comprises fifteen leading organizations that influence the development and deployment of ITS enabled services. The views of these industry experts and Government representatives will provide a stimulating, informative view of the current situation and challenge us all to make a difference in the near future.

Organizer
Richard Harris, Solution Director, International Transportation and Government Xerox Services, UK

Moderator
Rasmus Lindholm, Director, Partnership Services & Communications ERTICO-ITS Europe, Belgium

Speakers
Grace Ong, Director, Transportation Technology, Land Transport Authority, Singapore

Joseph Averkamp, Senior Director, Technology, Policy, and Technical, Xerox, USA

John Chipperfield, CTO, SWARCO, Austria

Josef Czako, Josef Czako, Vice President, International Business Development, Kapsch TrafficCom, Austria

Robert Sykora, Director Strategy, Mobility and Logistics Division, Siemens AG, Germany

SIS24 – Predictive Map-Based Applications Reaching the Market and Perspectives Towards Automated Driving

Tuesday, September 9, 10:30 a.m. – 12:00 p.m. | **Cobo 321**

New generation driver assistance systems use more and more predictive data based on vehicle position and map data. This session will report on new developments by the automotive industry on the implementation of the ADAS Interface Specifications, and plans for further market introduction of ADASIS compliant applications.

This enabling technology linking map, position and ADAS was developed by the ADASIS Forum, created in 2002, in the form of ADAS Interface Specifications released in April 2010, which are used in today's new Driver Assistance systems. This session will present the possible future development of this de facto industry standard as an enabling technology for Automated Driving.

Organizer & Moderator
Jean-Charles Pandazis, Head of Sector EcoMobility, ERTICO ITS Europe, Belgium

Speakers
Ulrich Lages, CEO, IBEO Automotive Systems GmbH, Germany

Detlef Kuck, Technical Expert Infotainment Strategies, Ford, Germany

Todd Kovach, OEM Key Accountant Executive, Garmin, USA

Nhai Cao, Product Line Manager, TomTom, USA

SIS25 – Mega City ITS Programs, New York City's Approach

Tuesday, September 9, 1:00 p.m. – 2:30 p.m. | **Cobo 140 D**

Mega Cities such as New York with its 12,600 intersections, 5 million daily commuters, a complex — large scale transportation network of, highway, local roads, bridges and tunnels, with central business BD short block spacing, and varied street network presents unique challenges, to the implementation of ITS technologies. New York City was one of the first cities to deploy a central computer control system for its, electromechanical controllers in the late 1960's, and this original system survived for over 25 years. Starting in 2002, the city began a program to, deploy ITS technologies and has had to overcome significant challenges because of the overall size of the systems, budget limitations, and the, reliability needed for systems of its size. Today, the city has become a leader in the deployment of advanced ITS technology with its unique, form of adaptive control, advanced traffic controllers, transit signal priority, wireless network, video monitoring and distribution, and regional, operation.

Organizer
Mohamad Talas, Deputy Director New York City DOT, USA

Moderator
Robert Rausch, Vice President TransCore, USA

Speakers
John Tipaldo, Director of Systems Engineering, New York City DOT, USA

Mohamad Talas, Deputy Director, New York City DOT, USA

Satya Muthuswamy, President, KLD Engineering, P.C., USA

Stacey Hodge, Administrative Transportation Coordinator Freight Technology, New York City DOT, USA

SIS26 – Technical Challenges for Adoption of Self-Driving Vehicles

Tuesday, September 9, 1:00 p.m. – 2:30 p.m. | **Cobo 140 E**

Session Track: ■ Automated Transportation

A discussion among technologists about the technical challenges and limitations of creating vehicle platforms that will be able to operate on, highways alongside traditionally driven vehicles.

Organizers
Steven Dellenback, Director R&D Southwest Research Institute, USA

Jane Lappin, Program Manager John A. Volpe National Transportation Systems Center, U.S. DOT, USA

Moderator
Steven Dellenback, Director R&D Southwest Research Institute, USA

Speakers
Raj Rajkumar, Co-Director GM Collaborative Research Lab, Carnegie Mellon University, USA

Michael Wagner, Senior Commercialization Specialist, Carnegie Mellon University, USA

Patt Basset, Vice President, DENSO International America, Inc., USA

Ryan Lamm, Assistant Director R&D, SWRI

Steven Shladover, Research Engineer/Program Manager, California PATH, ITS Berkeley, University of California, USA

SIS27 – Visualizing an Integrated Transport System — A Multi-modal Approach Enhanced by Automated Transit Networks

Tuesday, September 9, 1:00 p.m. – 2:30 p.m. | **Cobo 140 F**

Session Track: ■ Public Transit

A well-integrated transportation system which incorporates appropriate technology, planning, and policy for travelers with all abilities will redefine the urban landscape, shape the dynamics between people and places, affect land use patterns, and could ultimately result in more desirable social, economic, environmental, and cultural impacts on a community. The session will highlight recent research and development and provide a U.S. DOT vision for an integrated transport system based on ITS technologies and automation. The speakers will also navigate through several planning and deployment projects around the world by both public and private sectors related to ATNs, discuss their impacts and lesson learned, and identify areas for future research and international collaboration.

Organizer & Moderator
Gwo-Wei Torng, Principal Noblis Inc., USA

Speakers
Matthew Lesh, Transportation Specialist, U.S. DOT, USA

Adriano Alessandrini, Researcher, Centre for Transport and Logistics of the University of Rome La Sapienza, Italy

Robert Sheehan, Program Manager, ITS Joint Program Office, U.S. DOT, USA

Ryan Chin, Research Scientist, MIT Media Lab, USA

SIS28 – Meet The New Mobility Industry Vanguard: A View From the Trenches

Tuesday, September 9, 1:00 p.m. – 2:30 p.m. | **Cobo 141**

Session Track: ■ New Mobility

New Mobility is an "Industry of industries" already representing a multi-billion dollar global market and growing fast. Setting it apart from its transportation forebears, New Mobility is striking because of its breadth and interconnectedness, enabled by Intelligent Transportation Systems (ITS) and inclusive of sectors as wide ranging as: consumer electronics, telematics, logistics & supply chain, public transit, energy, real estate, finance, and more. This interconnectedness between sectors is enabling new product design and manufacturing opportunities, richly knit together via software, service, and shared use models.

Even more compelling is New Mobility's direct and sophisticated response to (and capitalization on) recent demographic, environmental, economic, and cultural shifts and accelerating urbanization, globalization, and connectivity. The combination of which speak to both pressing needs and new preferences for flexibility and choice. Recognizing New Mobility as a system of systems, this is an opportunity to hear from successful game changers about what works, what's not yet working, and how to scale up New Mobility solutions.

Organizer
Susan Zielinski, Managing Director, SMART and MMPEI, Fellow, Transportation Research Institute (UMTRI) & Taubman College of Architecture& Urban Planning University of Michigan, USA

Speakers
Prof. Amit Kapoor, Chairman, Institute for Competitiveness, India

Richard Harris, Solution Director, International Transportation and Government, Xerox Services, UK

Jan Black, Manager of Information Technology, TheRide/Ann Arbor Area Transportation Authority, USA

Shounak Athavale, Research Lead, Ford Motor Company, USA

Susan Zielinski, Managing Director, SMART and MMPEI, Fellow, Transportation Research Institute (UMTRI) & Taubman College of Architecture& Urban Planning, University of Michigan, USA

SIS29 – Smart Intelligent Traffic Intersections for the Connected Vehicle of the Future

Tuesday, September 9, 1:00 p.m. – 2:30 p.m. | **Cobo 142 C**

Session Track: ■ Traffic Management

The session will describe a futuristic scenario that connected cars and autonomous cars may bring to our lives within the next decade, if not, the next five years, as driverless cars from various manufacturers start driving on the roads. The intelligent intersections may automatically 'like', a vehicle passing the intersection at desirable speeds. Will the traffic signals that we have been seeing for the last several decades undergo, such change dynamics? Will we start seeing such smart intelligent traffic signals, even connecting to the internet of things, as smart cars start, coming into our lives! The panel will discuss technology and engineering issues along with market drivers for such scenarios.

Organizer & Moderator
Harsh Verma, Vice-President R Systems, USA

Speakers
Harsh Verma, Vice-President, R Systems, USA

John Kenney, Principal Researcher, TOYOTA Info Technology Center, USA, USA

Thomas Timcho, Senior Research Scientist, Battelle Memorial Institute, USA

David Miller, Principal Systems Engineer, Siemens Road and City Mobility, USA

Eric Raamot, Vice President, Engineering, Econolite, USA

Reggie Chandra, CEO, Rhythm Engineering, USA

Barry Einsig, Director, Cisco Systems, USA

SIS30 – Evaluation Methodology of the Effects of ITS on CO2 Emissions and its Application

Tuesday, September 9, 1:00 p.m. – 2:30 p.m. | **Cobo 140 B**

Session Track: ■ Sustainability

Some Intelligent Transport Systems (ITS) are expected to effectively reduce energy consumption and CO2 emissions from vehicular highway traffic. To enhance the introduction of ITS applications, it is important to evaluate the energy saving effects quantitatively and to open the results. It will help people who make an introduction plan of ITS applications to select appropriate ITS applications and to realize proper operation of the ITS applications and will make the effects more understandable to citizens. A methodology to evaluate the CO2 reduction effect by ITS applications was established and an international joint report named "Guidelines for Assessing the Effects of ITS on CO2 Emissions" was published in March 2013 by collaborative project between Europe, U.S. and Japan.

To disseminate the methodology, one of the most effective ways would be to demonstrate impact assessments of ITS on CO2 emissions by the methodology in various cities. An idea of "The Best Practice Showcase" is proposed for this purpose and rules to compare the assessment results for the showcase were created by the project member. This session introduces the methodology to evaluate the effects of ITS on CO2 emissions and the activity to enhance its application to various cities around the world.

Organizer
Hajime Amano, President and CEO ITS Japan, Japan

Moderator
Prof. Takashi Oguchi, Professor Institute of Industrial Sciences, The University of Tokyo, Japan

Speakers
Jean-Charles Pandazis, Head of Sector EcoMobility, ERTICO, Belgium

Evangelos Mitsakis, Centre for Research & Technology Hellas, Greece

Takashi Oguchi, Professor, The University of Tokyo, Japan

Speaker from Japan

Speaker from USA

SIS31 – Liability Issues for the Connected and Autonomous Vehicle

Tuesday, September 9, 1:00 p.m. – 2:30 p.m. | **Cobo 140 C**

Session Track: ■ Connected Vehicles & Cooperative Systems

Product and infrastructure-related liability has been cited among the major concerns for deployment of both connected and autonomous vehicles. This session will address these concerns for both the private and public sector from the perspective of automotive-related liability precedents as well as potentially analogous examples from other transportation sectors. The discussion will include analysis of how current and potential government regulation may affect liability concerns for the connected and autonomous vehicle and supporting infrastructure so that both regulatory and product liability factors may be viewed in an integrated risk assessment context.

Organizer
Paul Laurenza, Member Dykema Gossett PLLC, USA

Moderator
Scott McCormick, President Connected Vehicle Trade Association, USA

Speakers
Kazuo Katou, Project Assistant Manager, DENSO Corporation, Japan

Maxime Flament, Head of Sector SafeMobility, ERTICO-ITS Europe, Belgium

Thomas Bamonte, General Counsel, North Texas Tollway Authority (NTTA), USA

Paul Laurenza, Member, Dykema Gossett PLLC, USA

SIS32 – Creation of Next Generation Mobility Society by Circulating ITS Big Data: From Autonomous Driving to Elderly Driving Support

Tuesday, September 9, 1:00 p.m. – 2:30 p.m.

Cobo 321

Session Track: ■ Big Data and Open Data

With advocating the new businesses like "Mobility Data Bank" and the new ITS infrastructure concepts of "automobile cloud," IIC is also working for the various activities for creating a new society with ITS with the target of Tokyo 2020 Summer Olympic Games. The new society will realize the networked mobility including automobiles, and create "ITS complex" with the huge traffic-related information from the integrated data.

In this session, IIC will propose a new model for ITS infrastructure for distributing the traffic Big Data, which will also extend the discussion to the current security issues about the risk of being the target of cyber-terrorism.

Organizer
Naoki Tokitsu, President Internet ITS Consortium, Japan

Moderator
Makoto Maekawa, Executive Expert NEC Corporation, Japan

Speakers
Makoto Maekawa, Executive Expert, NEC Corporation, Japan

Kazuya Takeda, Professor, Nagoya University, Japan

Andreas Mai, Director, API Platform, Cisco, USA

Speaker from Oracle, USA

Eric Sampson, Professor, Newcastle University, UK

SIS33 – Big Data in Transit: Are Our Heads in the Clouds?

Wednesday, September 10, 8:30 a.m. – 10:00 a.m.

Cobo 140 E

Session Track: ■ Public Transit

As discussed during the 2013 ITS World Congress in Tokyo, there are several examples of using big data in public transport. However, given the trends in big data, can public transport make the most of it given significant resource constraints, the availability of cloud-based services and the expectations of senior management? This session will explore the use of analytics, the availability of cloud-based tools, and the impact on operations. For example, Melbourne, Australia's Yarra Trams used big data, the cloud, mobile, and analytics to transform its services. Further, in dealing with the flood of 2013, Calgary used big data to get transit back in operation. Also, this session will explore lessons learned in the use of analytical tools in public transport — particularly those tools that no longer require special skills to use.

Organizer
Carol Schweiger, Vice President TranSystems Corporation, USA

Moderator
C. Douglass Couto, Principal Aquila Group, USA

Speakers
Dean Economou, Technology Strategist, NICTA, Australia

Richard Harris, Solution Director, International Transportation and Government, Xerox Services, UK

Baruch Feigenbaum, Assistant Director of Transportation Policy, Reason Foundation, USA

Gord Elenko, Traffic Division Manager, City of Calgary, Canada

Dag Gogue, Chief Executive Officer, TransitLabs, USA

SIS34 – Minimum Quality Requirements for Driving Event Video Recorder to Secure Safe Driving Management

Wednesday, September 10, 8:30 a.m. – 10:00 a.m.

Cobo 140 F

Session Track: ■ ITS Rules and Standards

In the last four World Congresses, this SIS has proved international context as to how effectively and greatly "driving event video recorder", (DR) technologies contributed to the reduction of traffic accidents, combined with well-considered software application. DR users, either, professional or non-professional drivers, are apparently confused nowadays and expect to choose the appropriate DR device to achieve, their initial purpose, since diversified types of DR with wide range of price/quality are introduced on the market and subsequently the, effective/efficient use of them became very ambiguous. It is good time to discuss essential minimum requirements for DR technologies to achieve, our initial objectives, namely accident analysis and safety improvement in road traffic. Although some new technical trends have observed that, smart phone and/or EDR will unify DR technology eventually, we wish to discuss what specifications should be necessary for true DR technology, with high quality including high usability.

Each speaker will talk on minimum requirements to meet the goal as well, as additional requirements for qualified safety management. Thus, this SIS aims to indicate common minimum international requirements for, sound utility of DR for true and practical traffic safety management.

Organizer
Koji Ukena, CEO UK-Consultant on ITS, Japan

Moderator
Sadao Horino, Associate Professor Kanagawa University, Japan

Speakers
Joseph N. Kanianthra, President, Active Safety Engineering LLC, Former Associate Administrator for Vehicle Safety Research, NHTSA (Retired), USA

Koji Ukena, CEO, UK-Consultant on ITS, Japan

Engstrom Johan, Senior Specialist, Volvo, Sweden

Kimio Kikuchi, Senior Director, Fujitsu Co., Ltd., Japan

Ryoichi Ogishima, Group Manager, Panasonic Automotive & Industrial Systems Co. Limited, Japan

SIS35 – Human Factor Challenges of Vehicle Automation

Wednesday, September 10, 8:30 a.m. – 10:00 a.m.

Cobo 141

Session Track: ■ Automated Transportation

The session will report on the achievements of the above initiatives, with particular emphasis on the discussions around the human factor challenges of automated vehicles. It will also report on the latest status of a document being prepared for the Tri Lateral Working Group on Automation in Road Transportation, which aims to "Identify, research, quantify, and evaluate applications that would improve the operation of Connected Road Vehicle Automation." The aim of the Tri Lateral group is also to Co-ordinate research between U.S., EU and Japan on "the development of Connected Road Vehicle Automation technologies and concepts that facilitate deployment and market uptake." The session will also disseminate results from a number of recently completed projects in EU, U.S. and Japan, on human factors of automated driving, as outlined below.

Organizer
Natasha Merat, Associate Professor University of Leeds, UK

Moderators
Alan Stevens with Nick Reed, Principal Human Factors Researcher, Transport Research Laboratory, UK

Natasha Merat, Associate Professor, University of Leeds, UK

Speakers
Erwin Boer, Director, Steering Entropy Ltd., USA

James Foley, Senior Principal Human Factors Engineer, Toyota Collaborative Safety Research Centre, USA

Janet Creaser, Researcher, University of Minnesota

Toshitake Kawai, Chief Engineer, Honda, Japan

Natasha Merat, Associate Professor, University of Leeds, UK

Alan Stevens with Nick Reed, Principal Human Factors Researcher, Transport Research Laboratory, UK

SIS36 – Revolutionizing Performance Assessment of the Roadway Network Through Data and Analytics

Wednesday, September 10, 8:30 a.m. – 10:00 a.m.

Cobo 142 C

Session Track: ■ Big Data and Open Data

MAP-21 has put an emphasis on performance measures and operations strategies rely on a true assessment of how the transportation system is functioning. Identifying mobility issues in a state or metropolitan area leads to an "if we can measure it, we can manage it" ethos. Find out how agencies with limited resources are using data about how traffic is behaving in real-time and historically, plus analytics tools to assess congestion, prioritize projects and inform capital programs.

Organizer
Pete Costello, Director Business Development, Public Sector INRIX, USA

Moderator
Justin Graham, Head of Product Management - Analytics INRIX, USA

Speakers
Stephen Remias, Transportation Research Engineer, Purdue University, USA

John MacAdam, Transportation Engineer, Ohio DOT, USA

Justin Graham, Head of Product Management - Analytics, INRIX, USA

Michael Finn, Head of Go to Market Americas Connected Driving, HERE, USA

SIS37 – State of the Art and Benefits of Real Time Information for Commercial Vehicles

Wednesday, September 10, 8:30 a.m. – 10:00 a.m.

Cobo 140 B

Session Track: ■ Freight

Freight movement is critical to the economies of all nations. The number of commercial vehicles is expected to grow by more than 10 percent over the next few years. The growing interest in moving goods was reflected in MAP-21 and will certainly carry forward in future transportation policy directives. With this growing interest and an expected agency decision in 2014 regarding connected vehicle safety for heavy vehicles, we are at a tipping point regarding the integration of ITS technology into our freight management systems. ITS technologies and systems can deliver improved mobility and efficiencies to all partners in the industry: the trucking companies, the drivers, and the road managers (government agencies). Technologies and services could address fuel efficiency, commercial vehicle routing, improved parking availability, cargo security, safety, and alternate fuels.

Organizer
Fredrick M Warner IV, CEO TSPS, Inc, USA

Moderator
Harry Voccola, Executive Advisor, HERE, USA

Speakers
John Woodrooffe, Director, Transportation Safety Analysis, University of Michigan Transportation Research Institute (UMTRI), USA

Collin Castle, Connected Vehicle Technical Manager, Michigan DOT, USA

Eric Morris, Associate Vice President, HNTB Corporation, USA

SIS38 – TPEG Traffic Services Worldwide

Wednesday, September 10, 8:30 a.m. – 10:00 a.m.

Cobo 140 C

Session Track: ■ Traffic Management

TPEG is a versatile, content-rich protocol suite for the distribution of traffic and traveler information services. This special session will introduce TPEG services that are currently operated worldwide, as well as ongoing development work. For participants that consider the implementation and rollout of TPEG services and products, this session will provide an excellent overview of TPEG applications already standardized, as well as detailed information of how to engage in currently ongoing development and standardization work within the Traveler Information Services Association (TISA).

Organizer
Stéphanie Chaufton, TISA Coordinator TISA, Belgium

Moderator
Matthias Unbehaun, Executive Director TISA, Belgium

Speakers
Matthias Unbehaun, Executive Director, TISA, Belgium

Derek Rohloff, Vice President, Automotive Strategic Partnerships, Clearchannel, USA

Saurav Bhattacharyya, CEO, Quantum Inventions, Singapore

Ralf-Peter Schäfer, Vice President Traffic and Travel Information, TomTom, Germany

Jim O'Neill, CEO North America, GEWI, USA

Scott Sedlik, VP of Product & Market Development, INRIX, USA

SIS39 – Saving Lives with Photo Enforcement

Wednesday, September 10, 8:30 a.m. – 10:00 a.m.

Cobo 140 D

Session Track: ■ Traffic Safety

The challenge of improving road safety is just as important now as it was when the United Nations launched its Decade of Action for Road Safety, (2011-2020). However as budget restraints impact network operations and even basic road maintenance budgets are cut, we have to be smarter, about how we try to improve safety.

A key benefit of ITS deployment is improved information, management, and incident awareness response and road safety.

This session will focus on the safety contribution of ITS, look at examples, of real benefits, consider public perception of safety cameras and discuss how to ensure that road safety is considered as a primary objective of, utilizing new technology for our transport systems.

Organizer
Robert De Beukelaer, Solution Delivery Director EMEA Xerox Services, Netherlands

Moderator
Susan Spencer, Partner Susan Spencer & Associates, Canada

Speakers
Eva Lundberg, Project Leader Traffic Safety Cameras, Swedish Transport Administration, Sweden

Paul Vorster, CEO, ITS South Africa, South Africa

Eva Molnar, Director, Division of Transport, United Nations Economic Commission for Europe - UNECE, Switzerland

Robert De Beukelaer, Solution Delivery Director EMEA, Xerox Services, Netherlands

James Cheeks, Chief, Traffic Signals, Safety, Standards and ITS, District DOT, USA

SIS40 – Leveraging ITS and the Internet of Things to Enable Complete Streets

Wednesday, September 10, 8:30 a.m. – 10:00 a.m.

Cobo 110 A

Session Track: ■ Smart Cities

Complete Streets policies are being adopted around the world to improve public infrastructure and livability. With over 550 policies in, place in the United States alone, up from just 219 in 2010, this trend has gained significant momentum in recent years. Meanwhile Intelligent, Transportation Systems and the Internet of Things with all the buzz at this year's Consumer Electronics Show, is quickly evolving the world around, us to enable unprecedented amounts of data collection and intelligent automation.

Communities can leverage ITS and the Internet of Things to make Complete Streets policies a reality. Environmental components that have, historically been difficult to measure with statistical significance can now be measured such as detailed vehicular traffic patterns, public transit, efficiency, bicycle ridership, and pedestrian volume. While many cities today already have disparate technologies for some of these applications, now all modes of travel can be analyzed to allow city planners to design and realize the goal of truly Complete Streets.

Organizer & Moderator
Hamed Benouar, Vice President, Business Development and Government Relations Sensys Networks, USA

Speakers
Theo Quick, Director - Global Transport, Post & Logistics Industry, CGI, UK

Pamela Nesbitt, Distinguished Engineer and CTO, Smart Cities, IBM, USA

Glenn Geers, Technology Director, NICTA, Australia

Steve Heminger, Executive Director, Metropolitan Transportation Commission (MTC), USA

Andrew Fremier, Deputy Executive Director, Operations, San Francisco MTC

SIS41 – ITS for Global Mega Events

Wednesday, September 10, 10:30 a.m. – 12:00 p.m. | **Cobo 140 F**

Session Track: ■ International Cooperation to Expand ITS

This session will present how ITS takes the global mega events (e.g. World Cup Soccer, Olympic Games, etc.) which generate additional travel demands and have significant impacts on transport systems in the host cities and regions. Managing transport systems before and during a global mega event obviously is a big challenge in ITS area. Speakers from around the world who are operators of public transport, provider of ITS services with traveler information, or transport planners for mega events will introduce their experiences with transport services for the Olympic Games 2014 in Sochi, 2016 Rio de Janeiro, 2018 PyeongChang, and 2020 Tokyo. This special interest session is to be proposed again with the same title as it was planned in the 20th ITS World Congress in Tokyo, 2013.

Organizer & Moderator
Young-Jun Moon, Director The Korea Transport Institute, Korea

Speakers
Wim Ferreira, ITS Transportation Specialist, Tescho, South Africa

Vladimir Kruchkov, Director, INGOS, Russia

Young-Jun Moon, Director, The Korea Transport Institute, Korea

Hajime Amano, President and CEO, ITS Japan, Japan

SIS42 – Impacts and Opportunities for Self-Driving Vehicles

Wednesday, September 10, 10:30 a.m. – 12:00 p.m. | **Cobo 141**

Session Track: ■ Automated Transportation

Embracing a future with self-driving vehicles, what can we expect? Speakers will present what we know and we can anticipate in the areas of: (1) Energy and the Environment; (2) Infrastructure and Operations; (3) Institutional, and Legal Issues; (4) Human Factors.

Organizers
Steven Dellenback, Director R&D Southwest Research Institute, USA

Jane Lappin, Program Manager John A. Volpe National Transportation Systems Center, U.S. DOT, USA

Moderator
Jane Lappin, Program Manager John A. Volpe National Transportation Systems Center, U.S. DOT, USA

Speakers
Ginger Goodin, Senior Research Engineer, Texas A&M Transportation Institute, USA

Natasha Merat, Associate Professor, University of Leeds, UK

Matthew Barth, Professor of Electrical Engineering, Director of CE-CERT, University of California - Riverside, USA

John Woodrooffe, Director, Transportation Safety Analysis, University of Michigan Transportation Research Institute (UMTRI), USA

Paul Carlson, Senior Research Engineer, Texas A&M Transportation Institute, USA

SIS43 – What is the Most Important Point in ITS Deployment in Mega-Cities of Asia-Pacific?

Wednesday, September 10, 10:30 a.m. – 12:00 p.m. | **Cobo 142 C**

Session Track: ■ Traffic Management

In emerging countries/areas of Asia-Pacific, ITS has already been recognized and introduced as a vital tool to solve the various traffic, problems efficiently, but it's not always successful. This session focuses on the traffic information system as one of the most important, fundamental systems of ITS and various traffic management systems based on this system, such as traffic signal control system, BRT, ERP, ETC and so on. Speakers from ITS Asia Pacific and the Asian Civil Engineering Coordinating Council (ACECC) will introduce their experiences about, these systems and discuss their effects and challenges of maintenance & operations and so on forwards the further development and deployment, of ITS.

Organizer
Takaaki Segi, Director ITS Japan, Japan

Moderator
S.K. Jason Chang, Professor National Taiwan University, Chinese-Taipei

Speakers
Shunsuke Kamijo, Associate Professor, Institute of Industrial Science, The University of Tokyo, Japan

Narupiti Sorawit, Thai ITS Association (ITS Thailand), President, Thailand

Le Hung Lan, Professor, National Center for Technological Progress, Vietnam

Kian Keong Chin, Chief Transportation Engineer & Group Director, Land Transport Authority, Singapore

SIS44 – Seamless Mobility — ITS in Smart Cities, an Asia Pacific Perspective

Wednesday, September 10, 10:30 a.m. – 12:00 p.m. | **Cobo 110 A**

Session Track: ■ Smart Cities

By 2050, the human population will reach 9 billion people, with 75% of the world's inhabitants living in cities. Smart technologies can help address some of the challenges of rapid urbanization by improving services and managing their efficiency.

A smart city uses intelligent technology to enhance our quality of life in urban environments. Urban mobility and transport is vital for the functioning of smart cities. As cities grow and the urban sprawl gives birth to the megacities, the challenge within cities will be to integrate the different modes of transport by using the vast amounts of data more effectively. An estimated $117 billion will be invested worldwide over the next 20 years on smart city infrastructures, including $31.2 billion in digital systems and infrastructure for smart transport solutions. A sustainable, safe and seamless co-modal mobility system will be fundamental for growth and 'Seamless Mobility' will be one pillar for achieving this success.

This Special Interest Session will explore the concepts of Seamless Mobility and how ITS systems will support and connect services across its entire transportation network, including subways, trams, buses, vehicular and bicycle traffic, and more.

Organizer & Moderator
Mark Byrne, Vice President Sales Xerox Business Services (Australia) Pty Ltd., Australia

Speakers
Iain McGlinchy, Principal Adviser, Ministry of Transport, New Zealand

Dean Economou, Technology Strategist, NICTA, Australia

Agachai Sumalee, University of Thailand, Thailand

Ke Zhang, Vice Director, TOCC, Beijing Municipal Commission of Transport, China

Mong Kee Sing, President, ITS Singapore, Singapore

A Speaker from Japan

SIS45 – Cooperative ITS Vehicle Architecture and Applications

Wednesday, September 10, 10:30 a.m. – 12:00 p.m. | **Cobo 140 B**

Session Track: ■ Connected Vehicles & Cooperative Systems

With Vehicle-2-X communication deployment well under way, cooperative ITS will also be enhanced with hybrid infrastructure-based communication, systems like 4G/LTE. This introduces number of additional stakeholders and actor roles to ensure proper traffic and safety related information, exchange on technical and administrative levels. Therefore, a converged architecture model — currently initiated not only in Europe but all regions, — can provides the means for discrimination free access for various information providers and consumers to participate in the market of, cooperative ITS. This session will present the related activities from Europe, USA, and Japan. Additionally, the panel will discuss respective, harmonization opportunities.

Organizer
Ilja Radusch, Head of Department Automotive Services and Communication Technologies Daimler Center for Automotive IT Innovations, Germany

Moderator
Luisa Andreone, R&D EMEA Product Development, Strategic Research & Collaboration Centro Ricerche Fiat S.C.p.A. (CRF), Italy

Speakers
Prof. Horst Wieker, Professor for Communication Technologies, htw saar, Germany

Sam Oyama, Senior Researcher, Association of Radio Industries and Businesses (ARIB), Japan

Steve Sill, Program Manager, Vehicle Safety Technology, ITS Architecture and Standards, ITS Joint Program Office, Research and Innovative Technology Administration, United State DOT, USA

Ilja Radusch, Head of Department Automotive Services and Communication Technologies, Daimler Center for Automotive IT Innovations, Germany

SIS46 – Applying Intelligent Transportation Systems to Cross Border Issues

Wednesday, September 10, 10:30 a.m. – 12:00 p.m. | **Cobo 140 C**

Session Track: ■ Traffic Management

Intelligent Transportation Systems can facilitate the movement of people and goods across international borders. Examples of the application of these technologies can be found at the Detroit-Windsor border and the Port Huron-Sarnia border between Canada and the United States. The Detroit-Windsor crossing is particularly important for freight movement in North America. Approximately 7400 commercial vehicles per day make this crossing. This session is intended to address cross-border traffic management and cross-border supply chains.

Organizer & Moderator
Richard Beaubien, Managing Director Beaubien Engineering, USA

Speakers
Bill Anderson, Ontario Research Chair in Cross Border Studies, University of Windsor, Canada

Neal Belitsky, President, Detroit Windsor Tunnel, USA

Stephen Erwin, Head, Intelligent Transportation Systems Program, Ontario Ministry of Transportation, Canada

SIS47 – National ITS Associations — Driving Mobility Deployment

Wednesday, September 10, 10:30 a.m. – 12:00 p.m. | **Cobo 140 D**

Session Track: ■ New Mobility

National ITS Associations are leading the debate on the future of our transportation services. From organizing events and conferences through spreading knowledge and understanding and providing advice and advocacy to government, the influence and part they play in shaping policy and deployment is considerable. Increased cooperation between the national associations promises to help really accelerate ITS deployment. This session will provide insight into how ITS Associations are helping to accelerate ITS deployment.

Organizer
Richard Harris, Solution Director, International Transportation and Government Xerox Services, UK

Moderator
Eric Sampson, Professor Newcastle University, UK

Speakers
Christer Karlsson, CEO, ITS Sweden, Sweden

Shinya Omi, Senior Vice President, ITS Japan, Japan

Speaker from ITS Australia

Michael De Santis, Chairman and CEO, ITS Canada, Canada

Marije de Vreeze, Manager ITS Netherlands, Connekt/ITS Netherlands, Netherlands

Thomas Kern, Executive Vice President, ITS America, USA

SIS48 – Smart Parking: The Foundation and Accelerator for the Smart City and Connected Car

Wednesday, September 10, 10:30 a.m. – 12:00 p.m. | **Cobo 140 E**

Session Track: ■ Smart Cities

Parking has an undeniable impact on local traffic, economies, and sustainability. New intelligent parking technology helps motorists find open spaces in real time. But how can cities use this technology to coordinate resources for more effective transportation, policy, and business? And how do smart parking systems further the development and success of the Connected Car? Many smart city and technology industry leaders are calling parking the "killer app" for developing the Internet of Things (IoT), and smart cities themselves, as well as being a crucial element to the advancement of the Connected Car.

Experts from the technology sector, municipalities, and automobile industries discuss examples and their vision for the future of intelligent cities and the Connected Car, and what it means for businesses, governments, and economic growth.

Organizer
Justin Bean, Sr. Marketing Manager Streetline Inc.

Moderator
Praveen Narayanan, Research Manager Frost and Sullivan, USA

Speakers
Kurt Buecheler, SVP Business Development and Channel Partners, Streetline, Inc., USA

Hardik Bhatt, Director, Global Market Development, Internet of Everything for Cities, Cisco, USA

Bob Tiderington, Senior Manager, New Business Development, General Motors, USA

Mike Tinskey, Director of Vehicle Electrification and Infrastructure, Ford Motor Company, USA

Joachim Hauser, Director BMW iMobility Services - Parking, BMW, Germany

SIS49 – Global Perspectives: Cooperative Energy Efficient Applications

Wednesday, September 10, 1:30 p.m. – 3:00 p.m. | **Cobo 140 F**

Session Track: ■ Sustainability

Around the globe there are many programs that aim to cut down fuel consumption and emission by developing in-vehicle and traffic management applications. Cooperative technology — vehicle-to-vehicle and vehicle-to-infrastructure communication — is the vocal point of many of these applications. This session offers an overview of current activities and recent results from the European Union, United States and Japan. Presentations will focus on recent lessons learned from pilots and validation, evaluation and application impact, as well as successful application design and deployment aspects. Regional programs have converged through collaboration efforts such as an International Joint Report on assessment methodology and a working group on sustainability applications as part of the EU-US ITS cooperation. This years' session aims to update the state of play and set the research agenda.

Organizer
Jaap Vreeswijk, Product Manager Research Imtech Traffic & Infra, Netherlands

Moderator
Marcia Pincus, Program Manager ITS Joint Program Office, U.S. DOT, USA

Speakers
Detlef Kuck, Technical Expert Infotainment Strategies, Ford, Germany

Jean-Charles Pandazis, Head of Sector EcoMobility, ERTICO ITS Europe, Belgium

Hesham Rakha, Professor of Civil and Environmental Engineering and Director Centre for Sustainable Mobility, Virginia Tech, USA

Matthew Barth, Professor of Engineering, University of California - Riverside, USA

Masao Fukushima, Technical Consultant (ITS), Nissan Motor Co., Ltd., Japan

SIS50 – Towards Automation Deployment

Wednesday, September 10, 1:30 p.m. – 3:00 p.m. | **Cobo 141**

Session Track: ■ Automated Transportation

The goal of this special session is to discuss the strategic issue of automation research challenges and deployment and to open the debate between a Full Automation scenario and a scenario where automation will be introduced gradually and step by step leading consequently to mixed traffic scenarios where possibly all modes of automation will be present. The session will also examine the new research activities in the area and especially the Adaptive IP evolutions. Attendees will have the opportunity to learn more about the new and integrated automated functions that will be developed in the framework of the project and also discuss the still remaining research challenges that need to be addressed to enable deployment.

Organizer & Moderator
Angelos Amditis, Research Director Institute of Communication and Computer Systems, Greece

Speakers
Angelos Amditis, Research Director, Institute of Communication and Computer Systems, Greece

Luisa Andreone, Project Manager European Network, Centro Ricerche Fiat, Italy

Aria Etemad, Senior Project Manager, Volkswagen AG, Germany

Adriano Alessandrini, Researcher, Centre for Transport and Logistics of the University of Rome La Sapienza, Italy

Steven Shladover, Research Engineer/Program Manager, California PATH, ITS Berkeley, University of California, USA

Masao Fukushima, Technical Consultant (ITS), Nissan Motor Co., Ltd., Japan

SIS51 – Public Transport in Mega Cities

Wednesday, September 10, 1:30 p.m. – 3:00 p.m. | **Cobo 142 C**

Session Track: ■ Public Transit

Due to the increasing population and vehicles, the traffic jam and Eco problems in mega cities/regions are becoming serious. Convenient, efficient public transport service will contribute more to solve the jam and Eco problems in mega cities/regions, also to support the economic development. It will be discussed in this session how to improve the public transport services through useful ITS technologies.

Organizer
Weiyun Jiao, Department Manager China National ITS Center, China

Moderator
Ke Zhang, Vice Director, TOCC Beijing Municipal Commission of Transport, China

Speakers
Jiaqi Zhai, Researcher, TOCC, Beijing, China

Jean-Charles Caulier, Vice President, International Transportation and Government, Xerox, France

Koorosh Olyai, Senior Principal, Stantec, USA

Rohit Natekar, Business Leader - ITS Program & Head of Sales, Automotive IBU, India/MEA/SEA, KPIT Technologies Ltd., India

SIS52 – Road Authorities' Strategies for Moving from Co-operative Systems to Automation

Wednesday, September 10, 1:30 p.m. – 3:00 p.m. | **Cobo 110 A**

Session Track: ■ Connected Vehicles & Cooperative Systems

Cooperative systems in the field of road vehicles have been a subject for research and development for many years. In parallel, the development towards more automated traffic system has been evolving. The autonomous vehicle is the most central part in this development and is driven by the vehicle-OEMs. The autonomous vehicle will primarily address the shortcomings of the human being, first and most to support traffic safety, but will also address comfort and efficiency.

This session will give some national road authorities views of cooperative systems, as a paradigm itself but also as a technology to support automation. The session will also highlight steps to be taken to support the development and deployment and to assess the need for further research and for field operational tests, but also the need for policy development and strategic statements from the side of national road authorities.

Organizer
Bengt Hallström, Analyst and Senior Advisor Swedish Transport Administration, Sweden

Moderator
Jan Bergstrand, Head of Section Swedish Transport Administration, Sweden

Speakers
Merja Penttinen, Senior Scientist, Finnish Transport Agency, Finland

Bengt Hallström, Analyst and Senior Advisor, Swedish Transport Administration, Sweden

Anders Godal Holt, Head of Section ITS, Norwegian Public Roads Administration, Norway

Eva Schelin, Program Director FFI, Vinnova, Sweden

SIS53 – Evaluation of Costs and Benefits of Cooperative Systems and Automation Applications

Wednesday, September 10, 1:30 p.m. – 3:00 p.m. | **Cobo 140 C**

Session Track: Connected Vehicles & Cooperative Systems

As Connected Vehicle technology and programs mature and move from prototyping to pilot implementation phases, evaluating the costs and, benefits and sharing the successes and lessons learned from these implementations becomes increasingly important to help promote wide scale, deployment. This session will share findings from the ongoing U.S. DOT ITS JPO Connected Vehicle-related program evaluations and, benefit-cost assessments, and from similar efforts being conducted by our EU and Japanese counterparts, as well as joint international efforts. Specific topics will include various evaluation types, approaches to estimating costs and benefits, challenges involved in estimation along, with mitigation strategies, methods for evaluation of effectiveness, and tools to harmonize costs and benefits from different implementations. This panel will be of particular value to public and private sector decision-makers. Information on approaches to evaluation of costs and benefits, will help public sector decision-makers develop plans for deployment and identify.

Organizer & Moderator
Dale Thompson, Program Manager, ITS Joint Program Office U.S. DOT, USA

Speakers
Takahiro Tsukiji, Researcher, National Institute for Land and Infrastructure Management, MLIT, Japan

Dominie Garcia, Associate, Booz Allen Hamilton

Dale Thompson, Program Manager, ITS Joint Program Office, U.S. DOT, USA

Maxime Flament, Head of Sector SafeMobility, ERTICO-ITS Europe, Belgium

Emily Nodine, Mechanical Engineer, Advanced Transportation Technologies Center of Innovation, John A. Volpe National Transportation Systems Center, Research and Innovative Technology Administration, Volpe National Transportation Systems Center, U.S. DOT, USA

Alexander Jendzejec, Booz Allen Hamilton Inc., USA

SIS54 – International Harmonization of the Interoperability Assessment Processes

Wednesday, September 10, 1:30 p.m. – 3:00 p.m. | **Cobo 140 D**

Session Track: ITS Rules and Standards

Interoperability defines the ability of devices to communicate together in order to provide connected services. Interoperability is granted by, implementing technical specification based on standards and ensuring that these implementations are compliant to the standards as well as, minimum performance requirement. Different continents are likely to apply for different schemes of standards. Furthermore, the compliancy, assessment applicable to product and services may differ as well. These differences are creating additional constraints to suppliers aiming, at delivering similar products for a global market. Also, significant differences in quality criteria may create a lack of trust from the users. Harmonizing Interoperability assessment method is therefore critical to allow global markets and keep the user confident in ITS services.

Organizer & Moderator
Francois Fischer, Senior Project Manager ERTICO – ITS Europe, Belgium

Speakers
Jörn Edlich, Senior Business Development Manager, CETECOM, Germany

Christian Rousseau, Strategic Expertise Leader for Mobility and Transport Systems, Renault SAS, France

Hans-Jürgen Mäurer, Head of Development Engineering, DEKRA, Germany

Jean-Michel Henchoz, Senior Technical Engineer, DENSO INTERNATIONAL EUROPE, Belgium

Walton Fehr, Manager, ITS Systems Engineering, ITS Joint Program Office, U.S. DOT, USA

SIS55 – Implications of SHRP 2 Reliability Research for ITS

Wednesday, September 10, 1:30 p.m. – 3:00 p.m. | **Cobo 140 E**

Road users understand travel time reliability, at least intuitively. Often they build in extra travel time to be on time to compensate for unexpected events. Travel time reliability has just taken on more importance because Congress recently passed MAP-21. As a result, all states and MPOs must adopt performance-based planning and programming and address travel time reliability, among other goals. SHRP 2 developed significant research products relevant to ITS that can help achieve the reliability goal. Examples include the next generation of traffic monitoring systems; integrating reliability into simulation models; and ideas for communicating reliability traveler information.

Organizer
William Hyman, Senior Program Officer Transportation Research Board, USA

Moderator
Carlos Braceras, Executive Director Utah DOT, USA

Speakers
Robert Skinner, Jr., Executive Director, Transportation Research Board, USA

Jari Kauppila, Senior Economist/Head of Outlook and Statistics, International Transport Forum/Organization for Economic Cooperation and Development, France

George List, Professor, Department of Civil, Construction, and Environmental Engineering, Institute for Transportation Research and Education, North Carolina State University

Zongwei Tao, President, Weris, Inc., USA

SIS56 – Using Information and Telecommunication Technologies for Improving ITS Operations

Wednesday, September 10, 1:30 p.m. – 3:00 p.m.

Cobo 140 B

Creative uses of information and telecommunication technologies in both the private and public sectors provide opportunities for better operations of ITS systems, improved communications with system users (travelers), and enhanced planning for future transportation needs. This session will look at technologies for better decision making, more efficient operations, and better customer communications. Special attention will be given to adopting cloud solutions, use of geospatial decision tools, virtualization, mobility, social networks and security.

Organizer & Moderator
C. Douglass Couto, Principal Aquila Group, USA

Speakers
C. Douglass Couto, Principal, Aquila Group, USA

Adam Feng, Department Manager, Industrial Technology Research Institute (ITRI), Chinese-Taipei

Terry Bills, Transportation Industry Manager, ESRI, USA

Dan Scali, Manager - Industrial Control Systems Security Consulting, Mandiant, a FireEye company, USA

SIS57 – Telematics Services and Dynamic Re-charging Solutions for Market Integration of Electric Vehicles

Wednesday, September 10, 3:30 p.m. – 5:00 p.m.

Cobo 140 F

This session presents the latest developments in the area of Electro-mobility and especially solutions that may alleviate the drawbacks of existing on-board battery packs, namely on-road charging and ITS providing dynamic and real time information on vehicle range and on charging possibility. In more detail, a proposal for a general architecture will be presented, which will allow the integration of electric vehicles into the different infrastructure systems cooperating with each other, so as to offer precise telematics services and charging management services to users based on real time information. The different available inductive charging technologies will be also presented as well as a methodology so as to identify the benefits and costs from the wide implementation of such technologies, so that the investments required in the coming years for widespread implementation and exploitation of electric vehicles can be fully defined and quantified. Examples of implementation of ITS technologies and inductive charging technologies, conceived to enable full integration in the grid and road infrastructure within urban- and extra-urban environments for a wide range of future electric vehicles, will be also presented.

Organizer & Moderator
Angelos Amditis, Research Director Institute of Communication and Computer Systems, Greece

Speakers
John Inglish, Board of Directors member, WAVE (Wireless advanced Vehicle electrification) Company, USA

Sebastiaan Meijer, Associate Professor, Head of GaPSlabs, KTH Royal Institute of Technology, Sweden

Denis Naberezhnykh, Head of Low Carbon Vehicle and ITS Technology, TRL LIMITED, UK

Angelos Amditis, Research Director, Institute of Communication and Computer Systems, Greece

Lan Lin, Senior Researcher, Hitachi Europe Limited, France

Chris Borroni-Bird, VP Strategic Development, Qualcomm Technologies Inc, USA

SIS58 – The Importance of the Back-office — Addressing the Payment Processing and Reconciliation Challenge

Wednesday, September 10, 3:30 p.m. – 5:00 p.m.

Cobo 141

Transportation infrastructure operators are increasingly looking at how their back-office systems support them in achieving operating efficiencies, through back-office consolidation and account operability while at the same time addressing the ever increasing demand for strict accountability, for funds, payment data security and personal data security. This session explores current back-office challenges and solutions being deployed to, address these challenges.

Organizer & Moderator
Phil Silver, Director, Business Development Urban Insights Associates, USA

Speakers
Gregory Le Frois, Vice Chairman, Toll Services, HNTB Corporation, USA

Ernesto Natera, Account Executive, Aptean, USA

Conrad Sheehan, General Manager, C-SAM, Inc., a MasterCard company, USA

Lawrence Yermack, Strategic Advisor, Cubic Transportation Systems, USA

Martin Röhrleef, Head of Staff Division “Combined Mobility”, uestra AG, Germany

SIS59 – Paving the Way for Self-Driving Cars: Legislative and Legal Issues on the Horizon for Autonomous Vehicles

Wednesday, September 10, 3:30 p.m. – 5:00 p.m.

Cobo 142 C

Session Track: ■ Automated Transportation

Automated vehicle ("AV") technology is advancing toward implementation, but critical public policy and legal issues must be addressed to allow for widespread use of these vehicles, including:

- Achieving the economic and political will to fund the infrastructure necessary to make AVs an everyday reality.
- Defining governmental roles in funding and regulating AV technology, and achieving uniformity in regulations.
- Amending existing laws, including state motor vehicle, penal, and insurance codes to permit the use of AV technology.
- Delineating liability for accidents, misuse, and other problems that could be emerge from widespread use of AV technology.
- Addressing the legal risks for vehicle manufacturers and technology suppliers.
- Protecting data used in AV technology.

This session will be conducted in a panel format that allows for discussion of these issues and possible solutions. Experts from fields such as government/regulatory, technical/engineering, legal, lobbying, insurance, and academia will offer diverse perspectives on these key public policy and legal issues.

Organizer
Thomas Manganello, Warner Norcross & Judd LLP

Speakers
James Anderson, Senior Behavioral Scientist, RAND Corporation, USA

Kirk Steudle, Director of the Michigan DOT (MDOT), Michigan DOT, USA

Bryant Walker Smith, Assistant Professor, University of South Carolina School of Law and (by courtesy) School of Engineering, University of South Carolina, USA

Homayune Ghaussi, Partner, Warner Norcross & Judd LLP, USA

Thomas Manganello, Warner Norcross & Judd LLP, USA

SIS60 – Radiocommunication Technologies for Advanced ITS

Wednesday, September 10, 3:30 p.m. – 5:00 p.m.

Cobo 110 A

In this session, the speakers invited from Europe, the United States, Japan, and the automaker will report the current status of their ITS radiocommunication policies, standards, and technologies.

The session will focus on the issue of 700 MHz band that Vehicle to Vehicle (V2V) Communication and Vehicle to Infrastructure (V2I) Communication is going to be in operation within a few years in Japan. On the other hand, the 5.9 GHz Wireless Access in Vehicular Environments (WAVE) standards are almost finalized and ready to be deployed in Europe and North America. We will figure out and dissect current issues regarding our international harmonization of ITS radiocommunication standards and related projects, and then discuss solutions to each.

Organizer
Kenta Mizui, Chief Ministry of Internal Affairs and Communications, Japan

Moderator
Sam Oyama, Senior Researcher Association of Radio Industries and Businesses (ARIB), Japan

Speakers
Kenta Mizui, Chief, Ministry of Internal Affairs and Communications, Japan

Masashi Yamamoto, MAZDA Motor Corporation, Japan

John Kenney, Principal Researcher, TOYOTA Info Technology Center, USA

Niels Peter Skov Andersen, Chairman, TC ITS, European Telecommunications Standards Institute (ETSI), Denmark

SIS61 – Vehicle to Infrastructure Considerations for Transportation Agencies

Wednesday, September 10, 3:30 p.m. – 5:00 p.m.

Cobo 140 C

Unlike "traditional" road and transportation projects, "Vehicle-to-Infrastructure" solutions require the seamless integration of three, previous independent entities: roadside infrastructure, the vehicle, and a functioning application in order to be feasible. In this session, we will, hear from experts with experience in deploying advanced transportation technology on what to expect with initial vehicle-to-infrastructure, deployments, challenges faced during the adoption and deployment of this new technology (some of which may have "tried and true" solutions, and others which may have never before been faced many transportation agencies), and what the technology means to the future of surface transportation.

Organizer & Moderator
Matthew Smith, ITS Program Manager Michigan DOT, USA

Speakers
Collin Castle, PE, Connected Vehicle Technical Manager, Michigan DOT, USA

John Corbin, PE, PTOE, Director of Traffic Operations, Iowa DOT, USA

Faisal Saleem, ITS Branch Manager & MCDOT SMARTDrive Program Manager, Maricopa County DOT, USA

SIS62 – Strategy of Practical Implementation of V-I Cooperative Systems for Traffic Accidents Avoidance

Wednesday, September 10, 3:30 p.m. – 5:00 p.m.

Cobo 140 D

Session Track: Connected Vehicles & Cooperative Systems

It is important for all countries to protect road traffic users from traffic accidents, especially the critical ones. These negative impacts in, motorized societies are created by human errors. We think if a driver could recognize the approach of dangers in advance with ITS, it can save, him/her from committing these errors, and prevent many traffic accidents before they occur. We believe that V-I systems for traffic accident, avoidance are indispensable technologies as autonomous vehicle technologies rapidly grow around the world. This session aims to introduce the verification of our driving safety support systems demonstrated at the ITS World Congress Tokyo showcase and to discuss the technological and institutional subjects of V-I Cooperative systems for traffic accident avoidance, including the roadmap of driving support systems advancing in Japan, EU and the United States.

Organizers

Takashi Kimura, leader of International Cooperation Subcommittee UTMS Society of Japan, Japan

Yashushi Domae, Vice Principal, National Police, Japan

Moderator

Prof. Takashi Oguchi, Institute of Industrial Sciences, The University of Tokyo, Japan

Speakers

Nobuyasu Kitayama, Assistant Director, National Police Agency, Japan

Shigeru Inoue, Senior Member, UTMS Society of Japan, Japan

Masao Fukushima, Senior Member, UTMS Society of Japan, Japan

Carl K. Anderson, Connected Vehicle Program Manager, Federal Highway Administration, U.S. DOT, USA

Frans op de Beek, Principal Advisor for Traffic Management, Dutch Ministry of Infrastructure and the Environment-Rijkswaterstaat, Netherlands

SIS63 – Government Initiatives in Vehicle Automation

Wednesday, September 10, 3:30 p.m. – 5:00 p.m.

Cobo 140 E

Session Track: International Cooperation to Expand ITS

This session will provide a high level view on the policy and research approaches in Europe, Japan, and the U.S. in the area of vehicle automation, in both the near term and long term. Speakers will be asked to focus on discrete levels of automation, as well as setting (highway, urban), and the role of the government in making automated driving a reality.

Organizer & Moderator

Richard Bishop, Principal Bishop Consulting, USA

Speakers

Hideyuki Kanoshima, Senior Researcher, ITS Division, National Institute for Land and Infrastructure Management, Japan

Kevin Dopart, Program Manager, Connected Vehicle Safety & Automation, Joint Program Office, U.S. DOT, USA

SIS64 – Data, Directives and Regulations: How Crowd Sourced Data is Helping Agencies Meet New Rules

Wednesday, September 10, 3:30 p.m. – 5:00 p.m.

Cobo 140 B

Session Track: Big Data and Open Data

Both the U.S. and the EU have taken steps in recent years to promote the availability of real-time traffic information on major highways. The U.S. Federal Highway Administration has established by Rule the Real-Time System Management Information Program (RTSMIP) with initial requirements becoming active November 2014. The European Union has established the ITS Directive as a legal framework to accelerate the deployment of innovative transport technologies, including specifications for EU-wide real-time traffic information services, with a subset of free minimum services. This session will review the status of these regulatory actions and provide real-world examples of how agencies are utilizing the latest technologies and business models to meet and exceed these regulations.

Organizer

Pete Costello, Director Business Development, Public Sector INRIX, USA

Moderator

Rick Schuman, Vice President and General Manager, Public Sector INRIX, USA

Speakers

Robert Arnold, Director, Transportation Management, Office of Operations, Federal Highway Administration, U.S. DOT, USA

George Schoener, Executive Director, I-95 Corridor Coalition, USA

Claire Depré, Head of Unit Intelligent Transport Systems, DG MOVE, European Commission, Belgium

Graham Hanson, Head of Policy, Traffic Signs, Department for Transport, UK

Thomas Kusche, Traffic Telematics Coordinator, ARD & President, TISA, Germany

SIS65 – Can we Take Traveler Information to the Next Level to Improve Mobility?

Thursday, September 11, 8:30 a.m. – 10:00 a.m. | **Cobo 140 F**

Session Track: New Mobility

Technology deployment has been critical in improving mobility from the view of state, regional, and local transportation agencies, travelers, and Federal governments. This session will explore answers to the following critical questions: (1) Do we know enough, about customer values and quality requirements to develop high value services that will result in an improvement in mobility? (2) How, would network performance change if more private travelers made more economical trip choices? (3) What is the threshold level of, inconvenience or cost that motivates travelers to change their travel patterns and modes? (4) What if network managers could predict, the impact of real-time information on travelers' trip choices, and use that information to improve network conditions?

Organizer & Moderator
Carol Schweiger, Vice President TranSystems Corporation, USA

Speakers
Melanie Crotty, Director, Operations, Metropolitan Transportation Commission, USA

Martin Böhm, Head of Unit ITS Deployment, AustriaTech GmbH, Austria

Tetsuo Ishizuka, Director of Frontier Service Development Laboratory, East Japan Railway Company

Filip Kjellgren, Program Manager, VINNOVA - Swedish Governmental Agency for Innovation Systems, Sweden

SIS66 – How Can We Design Better Freight Transport ITS Solutions?

Thursday, September 11, 8:30 a.m. – 10:00 a.m. | **Cobo 141**

Session Track: Freight

How do we handle a growing transport demand when we cannot curb mobility? We are facing an increased capacity strain, especially in the, urban environment and the interface to long distance transport. The transport system becomes increasingly incident sensitive. Reliability, cannot be taken for granted. With limited possibilities of expanding capacity we will have to use existing infrastructure as efficiently as, possible. ITS freight services have the potential to make a difference by promoting, a more reliable freight transport flow through transport corridors and urban transport networks. By informing and managing traffic with the help from freight related data, various information services, access services, priority services, booking services, intelligent truck parking, etc., rolling stock can make a better use of the existing infrastructure. Cooperative systems will increase the potential of ITS services.

Organizer & Moderator
Arne Lindeberg, Project Manager Swedish Transport Administration, Sweden

Speakers
Fotis Karamitsos, Deputy Director General, European Commission, DG MOVE, Belgium

Michael Nielsen, General Delegate, IRU, Belgium

Nils Heine, Managing Partner, CPL Competence in Ports and Logistics, Germany

Arne Lindeberg, Project Manager, Swedish Transport Administration, Sweden

Suzanne Hoadley, Traffic Efficiency & Mobility Coordinator, Polis, Belgium

Richard Biter, Assistant Secretary, Intermodal Systems Development, Florida DOT, USA

SIS67 – Updates of Connected Vehicle in China

Thursday, September 11, 8:30 a.m. – 10:00 a.m. | **Cobo 142 C**

Session Track: Connected Vehicles & Cooperative Systems

The deployment of the technology of connected vehicles is extending worldwide nowadays. This concept is also a popular topic both in the academics and the industries in China. In this session, China's experts both from the academics and the industries will share the updates of connected vehicles with the peers from other countries and try to find a reasonable way to accelerate the deployment of connected vehicles in China.

Organizer
Weiyun Jiao, Department Manager China National ITS Center, China

Moderator
Jianqiang Wang, Professor Tsinghua University, China

Speakers
Jinling Hu, Fellow Research, China Academy of Telecommunication Technology, China

Zhenning Dong, Vice-President, Autonavi, China

Fan Ren, Research, Institute of Changan Automobile, China

Xiaolong Guo, Researcher, Huawei, China

SIS68 – Cooperative Driving Technology and Standardization

Thursday, September 11, 8:30 a.m. – 10:00 a.m. | **Cobo 110 A**

Session Track: ■ Connected Vehicles & Cooperative Systems

Vehicle IT convergence is steadily stimulating technical innovation in the autonomous vehicle and intelligent road infrastructure fields. Cooperative, driving technologies such as Cooperative Adaptive Cruise Control (CACC) and vehicle platooning is practically proven and applicable, on highway in the near future. Also road infrastructure will provide situation related information and traffic signal information to vehicle side. Cooperative driving technologies are based on V2X communication to share information between vehicle and road infrastructure. Thus it has, communication standard issues in V2X communication protocol and message format. We present the current cooperative driving technology development and standardization activities from USA, Europe and Asia.

Organizer & Moderator
Hyun Seo Oh, Principal Researcher ETRI, Korea

Speakers
Umit Ozguner, Professor, The Ohio State University, USA

Takeshi Yamamoto, Senior Manager, NEC, Japan

Bart Nitten, Project Manager of CACC, TNO, Netherlands

Hanbyeog Cho, Principal Researcher, ETRI, Korea

Corey Clothier, CEO, Comet and Business Development Strategist, Induct Technology, USA

SIS69 – Ecall Advancement to Deployment — Global Perspective

Thursday, September 11, 8:30 a.m. – 10:00 a.m. | **Cobo 140 B**

eCall deployments are poised to take effect across the America's, Pacific Rim, Europe, and Russia. eCall systems in Europe and Russia have the, potential to positively influence casualties. This session will discuss the deployment of eCall from the perspective of the four geographic areas. What is different across the continents? Will the mandated deployment of eCall in Russia and Europe alter the view points from continents where, eCall is not currently deployed? What can be learned from each sector regarding:

- Policy and Strategy
- Services and Functions
- Governance, Cooperation and Organizational structure

With understanding could a common approach to eCall benefit the wider, society?

Organizer & Moderator
Andy Rooke, Senior Project Manager ERTICO ITS-Europe, Belgium

Speakers
Gary Turner, Managing Director, Active-PCB Solutions Ltd., UK

Catherine Bishop, Global Emergency and Strategy Outreach Manager OnStar/Global Connected Consumer GM Public Policy, GM/OnStar, USA

Francois Fischer, Senior Project Manager, ERTICO ITS-Europe, Belgium

Yoshi Shiraishi, Executive Chief Engineer, Fujitsu Ten, Japan

SIS70 – Advanced Connected Vehicle Technology — Security and Certification

Thursday, September 11, 8:30 a.m. – 10:00 a.m. | **Cobo 140 C**

Connected vehicles are being deployed. On the verge of a major breakthrough in capacity for life saving and mobility advancements, our connected vehicles need to be secure and interoperable. This session will highlight solutions which ensure the deployment of secure, certified vehicles.

Organizers
Leland Key, Senior Director, Automotive Marketing & Sales NXP Semiconductors

Suzanne Murtha, Senior Program Manager ATKINS, USA

Moderator
Ted Mawhinney, Network Architect, Application Performance Monitoring, Modeling and Simulation Engineer CTC, USA

Speakers
Dave Kristick, Deputy Executive Director and Director of Operations, E-470 Public Highway Authority, USA

Ted Mawhinney, Network Architect, Application Performance Monitoring, Modeling and Simulation Engineer, CTC, USA

Tejas Desai, Head of Interior Electronics Solutions, North America, Continental Automotive Systems, USA

Donald Grimm, Staff Researcher, General Motors Research and Development Center, USA

Kees Moerman, Senior Scientist, NXP Semiconductors, Netherlands

Brian Daugherty, Associate Director, Advanced Development & IP, Visteon Corporation, USA

SIS71 – Application of Big Data to Transportation Operations & Planning

Thursday, September 11, 8:30 a.m. – 10:00 a.m. | **Cobo 140 D**

Session Track: ■ Big Data and Open Data

Big Data is a popular term used to describe the near exponential growth and availability of data, both structured and unstructured; and Big Data may be as important to business — and society — as the Internet has become. Why? More data may lead to more accurate analyses. More accurate analyses may lead to improved decision-making. And better decisions can mean greater operational efficiencies, cost reductions, and reduced risk. With respect to transportation, one can already see the emergence of Big Data sets in applications such as the connected vehicle, electronic ticketing for transit, electronic toll collection and congestion pricing, traveler information systems, and advanced traffic management systems. There is also an increased possibility of regional coordination of transportation operations by merging these data sets, analyzing the underlying patterns and trends, and using the results to support enhancements in planning and programming. This session will address some of the overarching questions associated with Big Data and its relevance to transportation planning and operations, discuss what "Big Data" means to different entities in the public and private sectors, and identify the technological, organizational, and commercial issues that need to be addressed in order to leverage the concept successfully.

Organizer
Armand Ciccarelli, Principal Appian Strategic Advisors, USA

Moderator
Bob McQueen, Vice President, International Business Development, Roadway Sensors Iteris Inc, USA

Speakers
David Wiggin, Director of Industry Marketing, Teradata, USA

Eric Hill, Director of System Management & Operations, MetroPlan Orlando, USA

Armand Ciccarelli, Principal, Appian Strategic Advisors, USA

Daniel Brudnicki, Director of Transportation Systems, Noblis, USA

Mark Pendergrast, Director of Product Management, INRIX, USA

SIS72 – Automated Driving Technology Research in Japan — Strategic Innovation Promotion Program

Thursday, September 11, 8:30 a.m. – 10:00 a.m. | **Cobo 140 E**

Session Track: ■ Automated Transportation

Automated vehicles are promising development lines for the automotive industry with several manufacturers designing for mass market introduction. Different automation levels have been defined and linked with several time-to-market estimations. The industry needs to test prototypes to validate technology, while authorities need to resolve how to test on public roads to assess benefits and evaluate the technology while maintaining safety. A common approach to testing automated vehicles on public roads is necessary in order to minimize risks for road users while not damaging the technology acceptance. This Special Interest Session will summarize the different initiatives

and viewpoints of the main stakeholders regarding the evaluation and assessment of the technology, the mandatory or voluntary regulations to be applied along the technology lifecycle, and the different approaches to public road testing while emphasizing the need for a common, public private, international approach.

Organizer & Moderator
Hajime Amano, President and CEO ITS Japan, Japan

Speakers
Hiroyuki Watanabe, Program Director, Council for Science and Technology, Cabinet Office, Japan

Tomoyuki Tanuma, Council for Science, Technology and Innovation, Cabinet Office, Japan

Seigo Kuzumaki, Assistant Program Director, Council for Science Technology and Information, Cabinet Office, Japan

Masayuki Kawamoto, Project General Manager, R&D Management Div. Toyota Motor Corporation, Japan

Kunio Segawa, Staff Manager, Technical Research Dept., R&D Technical Administration Div, Mazda Motor Corporation, Japan

Mamoru Sekiguchi, Senior Manager, Electronic Product Design Department, SUBARU Engineering Div., Fuji Heavy Industries Ltd., Japan

Masao Fukushima, Technical Consultant, R&D Engineering Management Division, Nissan Motor Co., Ltd., Japan

Toshio Yokoyama, Senior Chief Engineer, Technology Development Division 12, Honda R&D Co., Ltd., Japan

SIS73 – Future Mobility Beyond 202X

Thursday, September 11, 10:30 a.m. – 12:00 p.m.

Cobo 140 F

Session Track: ■ New Mobility

Speakers will discuss the future mobility beyond 202X following Tokyo 2013. In conjunction with ITS, the new mobilites with different energy sources will provide additional values for people in many different scenarios. In this session, expect speakers from all over the world to bring future visions of transportation in various circumstances and share the new value for many different transportation users. Expected outcomes from this session are to share the bright future with new mobililties and figure the task to be resolved.

Organizer & Moderator
Takahiko Uchimura, Vice President ITS Japan, Japan

Speakers
Stan Caldwell, Executive Director, Traffic21 Institute, Carnegie Mellon University, USA

John Maddox, Texas A&M Transportation Institute, USA

Kimihiko Nakano, Associate Professor, Advanced Mobility Center Institute of Industrial Science, the University of Tokyo

Erik Grab, Vice President Strategic Anticipation, Innovation & Sustainable Development, Michelin

Naotoshi Katahara, Chairperson, ITS GREEN SAFETY Committee Future System Subcommittee, ITS Japan, Senior Expert, Marketing Transformation Project Office, Fujitsu Limited, Japan

SIS74 – Towards Deployment of Automated Vehicles – Requirements for Road Testing

Thursday, September 11, 10:30 a.m. – 12:00 p.m.

Cobo 141

Session Track: ■ Automated Transportation

Automated vehicles are promising development lines for the automotive industry with several manufacturers designing for mass market introduction. Different automation levels have been defined linked with several time-to-market estimations. The industry needs to test prototypes to validate technology while authorities need to resolve how to test on public roads to assess benefits and evaluate the technology while maintaining safety. A common approach to testing automated vehicles on public roads is necessary in order to minimize risks for road users while not damaging the technology acceptance.

This Special Interest Session will summarize the different initiatives and viewpoints of the main stakeholders regarding the evaluation and assessment of the technology, the mandatory or voluntary regulations to be applied along the technology lifecycle, and the different approaches to public road testing while emphasizing the need for a common, public-private, international approach.

Organizer & Moderator
Álvaro Arrúe, Project Manager IDIADA Automotive Technology, Spain

Speakers
Barbara Wendling, Safety Affairs & Vehicle Testing, Volkswagen Group of America, USA

Felix Fahrenkrog, Manager Active Safety ADAS, IKA, Germany

Tomas Gea i Calza, Innovation Manager, Barcelona Municipality, Spain

Richard Bishop, Principal, Bishop Consulting, USA

Akio Hosaka Sr., Senior Researcher, HIDO, Japan

SIS75 – Traffic Sensing by Various Manners

Thursday, September 11, 10:30 a.m. – 12:00 p.m.

Cobo 142 C

Session Track: ■ Traffic Management

Traffic sensing is the key for traffic demand management. Traditionally, sensing devices, such as loop counter and ultrasonic detector, are embedded into the road infrastructure. As all of you may know, thanks to the ICT technology, data created from probe cars or smartphone applications become one of the promising sources for providing mobility services and the traffic management. Or it may collect from advanced sensing technology such as image processing and active sensing. However, data from different sources have different characteristics. This session will try to bring various approaches in one session and discuss in wide range their advantages and disadvantages from various applications point of views.

Organizer & Moderator
Nobuyuki Ozaki, Senior Fellow Toshiba Corporation, Japan

Speakers
Arch Owen, Program Development Director, OptaSense, USA

Mariko Okude, Senior researcher, Hitachi Research Laboratory, Hitachi Ltd., Japan

Hajime Sakakibara, Senior Assistant General Manager, Sumitomo Electric System Solutions, Co., Ltd., Japan

SIS76 – The Impacts of Connected Vehicle Technology on Transportation Agency Operations

Thursday, September 11, 10:30 a.m. – 12:00 p.m. | **Cobo 140 B**

Session Track: ■ Connected Vehicles & Cooperative Systems

This session will summarize connected vehicle deployment considerations from a practitioner's perspective, applying lessons learned, from the Safety Pilot and other connected vehicle test bed programs around the country. The session will also review the lessons learned, from various test bed programs and provide a forum for discussion on technical and institutional problems shared among the test beds. It, will offer realistic guidance to practitioners in light of the 2014 NHTSA decision. Infrastructure considerations related to roadside equipment, communications, head-end hardware, and software will be emphasized. Policy and other institutional considerations will also be addressed. The discussion of V2I deployment needs will focus on applications that support state and local agency operational objectives related to, safety, mobility, traffic operations, multi-modal integration, and asset management.

Organizer
James Barbaresso, Vice President, Intelligent Transportation Systems HNTB Corporation, USA

Moderator
Matthew Smith, ITS Program Manager Michigan DOT, USA

Speakers
Gary Piotrowicz, Deputy Managing Director/County Highway Engineer, Road Commission for Oakland County, USA

Scott Shogan, Parsons Brinckerhoff

Matthew Smith, ITS Program Manager, Michigan DOT, USA

SIS77 – Modeling Connected Vehicle Applications and Dynamic Management Strategies: Issues and Challenges

Thursday, September 11, 10:30 a.m. – 12:00 p.m. | **Cobo 140 C**

Session Track: ■ Connected Vehicles & Cooperative Systems

The Analysis, Modeling, and Simulation (AMS) of Active Transportation Demand Management (ATDM) and Dynamic Mobility Applications, (DMA) requires a partnership of many different disciplines ranging from traditional transportation modeling to wireless communication and system management decision making. As part of better understanding the future applications of DMA and ATDM strategies, the U.S. DOT (U.S. DOT) is sponsoring a project for the development of AMS Testbeds for the, purpose of evaluating different ATDM strategies and DMA applications in various combinations. AMS Testbeds will serve as virtual computer based, environments in a laboratory setting to facilitate detailed modeling and analysis. This panel brings together experts who have evaluated many, applications related to advanced and dynamic mobility strategies using AMS techniques.

Organizer
James Colyar, Transportation Specialist USDOT – Federal Highway Administration, USA

Moderator
Karl Wunderlich, Corporate Fellow, Transportation Analysis Noblis, USA

Speakers
Balaji Yelchuru, Lead Associate, Booz Allen Hamilton, USA

Ismail Zohdy, Associate, Booz Allen Hamilton, USA

Prof. Ram Pendyala, Professor, Georgia Institute of Technology, USA

Thomas Bauer, CEO, Traffic Technology Solutions, USA

Alex Gerodimos, President, TSS-Transport Simulation Systems, Inc, USA

SIS78 – Collision of the Physical & Cybersecurity in an ITS World

Thursday, September 11, 10:30 a.m. – 12:00 p.m. | **Cobo 140 D**

Panel session discussing the collision of the physical and cyber worlds that brings new challenges to securing the transportation sector including, the customer experience, passenger journey, and treatment of our freight in every mode. These require greater consideration as to the impact of, threats on infrastructure and processes calling for deeper attention on the means of attack, their consequences, requiring a visionary thinking to, risk mitigation, its impacts, and organizational development. The greatest risk that transportation organizations are bracing themselves for is the, combination of both physical and cyber-attacks on their infrastructure; this is the highest risk factor that many are working to control within, corporate risk registers. The explosion of social media applications, online technologies and self-service user terminals provide an avenue for, increased risk. In this panel debate, hear from senior security staff from an infrastructure operator (Heathrow Airport), a Semiconductors manufacturer (NXP) and a service provider (CGI) as to the main challenges and how the industry is looking to overcome them.

Organizer & Moderator
Theo Quick, Director - Global Transport, Post & Logistics Industry CGI, UK

Speakers
Timo van Roermund, Senior Research Scientist, NXP, Netherlands

Mark Jones, Heathrow Airport, UK

Cheryl Martin, Global Cyber Security Director, Shell and Commercial Business, CGI, UK

SIS79 – SMART Tolling for Achieving Future Green Road

Thursday, September 11, 10:30 a.m. – 12:00 p.m.

Cobo 140 E

Session Track: ■ Traffic Management

This session will focus on smart tolling systems for smart highways. In smart highways, operators and drivers will be able to see real time traffic, information. The smart highway is a next generation road aiming to be congestion free, stop free and accident free through traffic information, services. Smart tolling systems support toll collection, enforcement for overloaded vehicles, speed violation and others base on wireless, communication systems. This session will introduce development of a smart tolling system as a multilane free flow road charging systems. Further, it will provide an opportunity to share best practices in the world.

Organizer
Ki Han Lee, Professor Seoul Women's University, Korea

Moderato
Joseph Averkamp, TUV Rheinland

Speakers
Trond Foss, Senior Advisor, SINTEF Technology and Society, Norway

Ki Han Lee, Professor, Seoul Women's University, Korea

Zoltan Varga, Managing Director, Toll Service PLC, Hungary

YC Chang, Managing Director, Far Eastern Electronic Toll Collection Co., Ltd. (FETC), Chinese-Taipei

Fah Siang Ho, General Manager, YDT Technology International Ltd., Chinese-Taipei

Robert W. Karr, Managing Director, Star Systems International Ltd., Hong Kong

SIS80 – Security for Connected Vehicles

Thursday, September 11, 10:30 a.m. – 12:00 p.m.

Cobo 110 A

A Connected Transportation environment will need to include a Security Certificate Management System (SCMS) that will facilitate confidence that, received messages were sent from certified devices and that the message was not altered between transmission and reception. Both the U.S. and, Europe are developing PKI systems to achieve this, and are planning to attached certificates and cryptographically sign messages to achieve, these goals A major technical goal for these systems is to balance privacy with the ability to identify and revoke devices from the system which are, out of compliance. When fully deployed, these will become the largest PKI systems in the world. This session will focus on the status and plans for, the security systems being developed in the U.S. and Europe.

Organizer
Michael Shulman, Technical Leader, Ford Active Safety Research Ford Motor Company, USA

Speakers
Andre Weimerskirch, Associate Research Scientist, University of Michigan Transportation Research Institute (UMTRI), USA

Thorsten Hehn, Senior Communications and Security Engineer, Volkswagen Group of America, USA

Henrick Broberg, Systems Engineer, Volvo Car Corporation, USA

Tigran Khatchatrian, Vehicle Safety & Electronics Engineer, Volkswagen Group of America

Mike Lukuc, Vehicle Safety Communications Program Manager, National Highway Traffic Safety Administration, U.S. DOT, USA

SIS82 – Maritime Informatics — How ITS is Transforming the Shipping Industry

Thursday, September 11, 1:30 p.m. – 3:00 p.m. | **Cobo 141**

The shipping-sector is a vast part of the global transport system. However, it is underrepresented when it comes to attention and dissemination in, the area of ITS and ICT for transport. In many ways the shipping-sector has not utilized the potentials of ICT much depended on expensive, communication, segmented business structure and in many cases — old habits. However, shipping is on the same hand far ahead of the land transports, when it comes to implementation of ITS infrastructure. Almost all sea-going vessels are equipped with real-time positioning, access control, and IT-based security systems. All mandated by IMO from safety and security point of view, but not utilized by the industry for the benefits, of process-enhancement and the development of new business-models in the way IT affects other segments of the transport system. There are signs that the shipping industry is slowly starting to adapt to the digital age. More and more vessels now have internet-connection, onboard, and there are interesting projects launched in the area of Sea Traffic Management (STM) where ITS is playing a vital part and current, environmental challenges requires a much higher degree of integration and transparency in order to affect the transport system in a more, sustainable direction. ITS will also be an important tool in enabling shipping to be a fully integrated part of the multi-modal chain.

Organizer
Per-Erik Holmberg, Business Manager, Researcher Maritime Informatics Viktoria Swedish ICT, Sweden

Moderator
Mikael Lind, Research Manager Viktoria Swedish ICT, Sweden

Speakers
Richard Watson, Professor, University of Georgia, USA

Jin Hyoung Park, Senior Researcher, Maritime Safety Research Division, Korea Research Institute of Ships and Ocean Engineering, Korea

Ulf Svedberg, Senior Coordinator, Innovation & Development, Swedish Maritime Authority, Sweden

Per-Erik Holmberg, Business Manager, Researcher Maritime Informatics, Viktoria Swedish ICT, Sweden

SIS83 – Adaptive Signal Control Technologies in the World of Connected and Automated Vehicles

Thursday, September 11, 1:30 p.m. – 3:00 p.m. | **Cobo 142 C**

Session Track: ■ Connected Vehicles & Cooperative Systems

Adaptive Signal Control Technologies (ASCT) represent one of the most efficient ITS applications. These technologies have been used, for decades to alleviate traffic congestion, improve safety, and reduce carbon footprint on urban streets around the world. While these systems, have struggled to increase their presence on U.S. roads for many years, we have recently seen significant increase in their deployments. However, our transportation paradigm is about to change significantly with more automation and connectivity being added in every aspect of our, transportation system. Programs such as Connected Vehicle Technology and Automated Vehicles require that we reinvestigate roles of each of the, transportation system's components. This session will address purpose, significance, and future needs of ASCT in the new world of connected, and automated transportation. The session will bring together the leading experts from the ASCT industry from vendor, public agency, and, academic sides.

Organizer & Moderator
Aleksandar Stevanovic, Assistant Professor Florida Atlantic University, USA

Speakers
Doug Gettman, Associate, Kimley-Horn, USA

Larry Head, Associate Professor & Department Head, Systems & Industrial Engineering, University of Arizona, USA

Reggie Chandra, CEO, Rhythm Engineering, USA

Steven Shaw, Manager, Roads and Maritime Services, Australia

SIS84 – The Internet of the Auto: Clouds, Crowds & Traffic

Thursday, September 11, 1:30 p.m. – 3:00 p.m. | **Cobo 110 A**

The Internet of the Automobile defines how disruptive technologies are connecting the driver, the car, and the road network, devices, apps, and, data all through inter-connected networks. Using real-world examples of "Clouds, Crowds, and Traffic," this session will explore the benefits of Big, Data in delivering intelligent driving services such as traffic, parking, fuel, EV services, and road weather to help automakers improve the driving, experience for consumers and to reduce the individual, economic, and environmental toll of global traffic congestion. The session will explore the future of connected navigation, based upon revolutionary approaches of vehicle OEMs and infotainment providers, in integrating smartphone connectivity, apps, and cloud services into the car while integrating vehicle probe data and mobile crowdsourcing, to deliver better navigation experiences. Additionally, attendees will learn how emerging AI techniques such as predictive analytics, pattern, recognition and machine learning are the catalyst for a new generation of services.

Organizer
Scott Sedlik, VP of Product & Market Development INRIX, USA

Moderator
Andrew Hart, SBD

Speakers
Louis Brugman, Vice President of Product Planning, Pioneer, USA

Frank Försterling, Advanced Development and Innovations Infotainment & Connectivity, Continental Automotive GmbH, Germany

Daniel Grill, Director App Development Group, Mercedes Benz Research & Development

Scott Sedlik, VP of Product & Market Development, INRIX, USA

SIS85 – Accessibility 360 — ITS-enhanced Accessible Transportation Services

Thursday, September 11, 1:30 p.m. – 3:00 p.m.

Cobo 140 C

According to the World Report on Disability (2011) published by the World Health Organization and World Bank, "… more than one billion people in, the world live with some form of disability. In the years ahead, disability will be an even greater concern, because its prevalence is on the rise." The report further noted, "lack of access to transportation" as a barrier for people with disabilities obtaining employment, training, healthcare, and participation in community life. In 2013, the U.S. DOT launched the Accessible Transportation Technologies Research Initiative (ATTRI) that, seeks to enhance mobility choices and quality of life for travelers with disabilities. Recent ITS research in connected vehicle and automation, along with other technological innovations, such as assistive robots and crowdsourcing, could lead to many possibilities and help create seamless, transportation environments for all citizens. ATTRI seeks to leverage these technologies to empower travelers of all abilities to reliably, safely, and independently plan and execute travel.

Organizer
Gwo-Wei Torng, Principal Noblis Inc., USA

Moderator
Mohammed Yousuf, Office of Operations R&D, Turner Fairbank Highway Research Center Federal Highway Administration, U.S. DOT, USA

Speakers
Daniel Morton, Business Analysis Associate, Singapore-MIT (S.M.A.R.T), USA

Mohammed Yousuf, Office of Operations R&D, Turner Fairbank Highway Research Center, Federal Highway Administration, U.S. DOT, USA

Adriano Alessandrini, Researcher, Centre for Transport and Logistics of the University of Rome La Sapienza, Italy

Kazuki Yamamoto, Director for ITS, National Police Agency, Japan

SIS87 – From Vertical to Horizontal to Connected Clouds

Thursday, September 11, 1:30 p.m. – 3:00 p.m.

Cobo 140 E

Session Track: ■ Big Data and Open Data

Intelligent Transportation System solutions are increasingly faced with a demand for flexibility, short time-to-market and the ability to react to, rapidly evolving customer expectations and business environments. Corresponding solutions therefore have to work across service providers, platform providers and businesses. Vertical service and horizontal system designs are loosely coupled concepts, with cloud ready deployments and international operations, are paving the way forward for flexible and, cost efficient service provisioning within ITS businesses. This session will touch base on what has been achieved by the presenting industry, leaders, what this could mean for pay-as-you-grow business models and for software-as-a-service deployments. An outlook to the next steps in, the ITS systems transformation will be given. Challenges like interacting clouds and research ideas for linking ITS business domains will be, discussed.

Organizer
Friedhelm Ramme, Manager Automotive Ericsson Global Competence Hub, Ericsson GmbH, Germany

Moderator
Olle Isaksson, Head of Transport & Automotive Ericsson Global Services, Sweden

Speakers
Roopesh Das, Director, IT Architecture & Center of Excellence, Wallenius Wilhelmsen Logistics, USA

Claes Herlitz, Head of Public Transport, Ericsson AB, Sweden

Friedhelm Ramme, Manager Automotive, Ericsson Global Competence Hub, Ericsson GmbH, Germany

Paul Daunno, Lead Product Development Manager, AT&T Emerging Devices, USA

SIS88 – The Connected Car Becomes the Ultimate Mobile Device

Thursday, September 11, 1:30 p.m. – 3:00 p.m.

Cobo 140 B

Session Track: ■ Connected Vehicles & Cooperative Systems

We're on the cusp of a technology revolution that will fundamentally change the way we interact with cars as well as how we build and manage, our future highways. Drivers around the world waste the equivalent of one week's vacation idle in traffic, robbing our economies of billions, of dollars and polluting the planet. But connected cars and vehicle to vehicle communications could hold the key to improving urban mobility. We're just beginning to tap the potential of Big Data, V2V and V2I communications. With data collected from connected cars set to, proliferate, the road ahead is paved with the insights we need to understand the individual, economic and environmental toll of congestion, in ways that makes our roads smarter and traffic-powered navigation systems in our vehicles indispensable to the world's one billion drivers. For example, vehicles that know the safest routes through storms based on road conditions, sharing insight with other vehicles as well as, transportation agencies, helping them dispatch snow and ice removal vehicles to impacted locations more quickly. In this session, executives from INRIX and leading global automakers will discuss how Big Data is feeding both city planning and automotive, design to deliver on this vision for future mobility.

Organizer
Jim Bak, Senior PR & Marketing Manager INRIX

Moderator
Joe White, Global Auto Editor, The Wall Street Journal, USA

Speakers
Mark Gildersleeve, President, WSI, USA

Anupam Malhotra, Senior Manager, Connected Vehicle, Audi of America, USA

Andrew Fremier, Deputy Executive Director, Operations, San Francisco MTC, USA

Tobias Kraus, Traffic Information Management and Route Optimization, BMW Group, Germany

Jon Maron, VP of Marketing and Mobile Products, INRIX

Kristine Rosychuk, Marketing Supervisor, J.D. Power, USA


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Technical/Scientific Sessions

TS01 – Using Simulation for Traffic Management Applications

Monday, September 8, 10:30 a.m. – 12:00 p.m. | **Cobo 353**

Session Track: ■ Traffic Management

Moderator: Marije de Vreeze, Manager, ITS Netherlands, Netherlands

13139 **Matlab-Vissim Interface for Online Optimization of Green Time Splits**
Prateek Bansal, Graduate Research Assistant, The University of Texas at Austin, USA

13658 **Validation and Quality Management of the San Diego I-15 ICM Aimsun Online Real-time Simulation Model**
Matthew Juckes, Senior Project Manager, Transport Simulation Systems, USA

13708 **A Web Application of Flexible Open-structure Traffic Simulation**
Xuan Shi, Research Assistant, University of Wisconsin - Madison, USA

TS02 – Local Based Travel Information

Monday, September 8, 10:30 a.m. – 12:00 p.m. | **Cobo 354**

Moderator: Itti Rittaporn, General Manager, Content and EV Department Toyota Tsusho Electronics, Thailand

12111 **Development of Integrated System for Real-time Traffic Information on Social Network Services**
Hyokyoung Eo, Researcher, Korea Institute of Construction Technology, Korea

12346 **Traffic Information Service By Data Fusion Apps and BIS**
Bumjin Park, Senior Researcher, Korea Institute of Civil Engineering and Building Technology, Korea

13007 **The Current Situation and Prospect of the Travel Information Service in Megacities of China**
Jian Gao, Engineer, National ITS Research Center, Research Institute of Highway Ministry of Transport, China

TS03 – Connected Vehicle Deployment and Field Tests

Monday, September 8, 10:30 a.m. – 12:00 p.m. | **Cobo 355**

Session Track: ■ Connected Vehicles & Cooperative Systems

Moderator: Matthew Smith, ITS Program Manager Michigan DOT, USA

13434 **IEEE 1609 Protocol Conformance Test Tool**
Chia-Chang Hsu, Engineer, Industrial Technology Research Institute, Chinese-Taipei

12075 **Bringing Connectivity to Automation — A Vehicle-based Researcher Platform to Field Test Operational Concepts**
Christopher Armstrong, Transportation Engineer, Leidos, USA

13237 **Maricopa County DOT SMARTDrive Program: Connected Vehicle Applications in Arterial Environment**
Faisal Saleem, ITS Branch Manager & MCDOT SMARTDrive Program Manager, Maricopa County DOT, USA

13253 **Preparing a Possible Oregon Road Map for Connected Vehicle/Cooperative Systems Deployment Scenarios**
Robert Bertini, Professor, Portland State University Department of Civil and Environmental Engineering, USA

13263 **High Level Deployment Concepts for Connected Vehicles**
Brian Burkhard, ITS Manager of Projects, Jacobs, USA

13673 **Early Deployment of V2I Technology on a "Smart Corridor"**
Darryl Dawson, ITS Deployment Engineer, Illinois State Toll Highway Authority, USA

TS04 – V2X Technology Evaluations

Monday, September 8, 10:30 a.m. – 12:00 p.m. | **Cobo 356**

Session Track: ■ Connected Vehicles & Cooperative Systems

Moderator: Maxime Flament, Head of Sector SafeMobility, ERTICO – ITS Europe, Belgium

12305 **V2V Prototype System Construction and Analysis in Campus Environment**
Luoyi Huang, Engineer, DENSO (CHINA) INVESTIMENT Co., Ltd., China

13271 **Enrique Cramer, Business Development Director, Drivewyze, Canada**
Enrique Cramer, Business Development Director, Drivewyze, Canada

13279 **V2V 5.9 GHz RF Channel Models**
Paul Alexander, CTO, Cohda Wireless, Australia

13311 **Decentralized Congestion Control for DSRC Systems: A Comparison**
Paul Alexander, CTO, Cohda Wireless, Australia

TS05 – Cooperative ITS System Standards

Monday, September 8, 10:30 a.m. – 12:00 p.m. | **Cobo 357**

Session Track: ■ ITS Rules and Standards

Moderator: Ken Nakaoka, Senior Engineer Panasonic Corporation, Japan

12034 **Investigation of ITS Coexistence on the Physical Layer**
Liesbeth Gommé, NXP Semiconductors, Belgium

12804 **Major European C-ITS Corridor Project Defines V2I Functions & Interfaces Subtitle: "Traffic Management in a C-ITS Environment"**
Anto Komarica, Solution Manager, Kapsch TrafficCom AG, Austria

13459 **SCORE@F Project: Cooperative ITS and DATEX II at the Service of Roads Operators and Roads Users**
Ludovic Simon, Head of Unit, CEREMA / DTerIDF, France

13484 **Session-Based Communication over IEEE 802.11p for Novel Complex Cooperative Driver Assistance Functions**
Oliver Sawade, Senior Researcher, Fraunhofer FOKUS, Germany

13548 **Connected Vehicle Integration Research and Design Guidelines Development: Formative Expert Interviews**
Tammy Trimble, Research Associate, Virginia Tech Transportation Institute, USA

TS06 – Policy Changes to Connected and Autonomous Vehicles

Monday, September 8, 10:30 a.m. – 12:00 p.m. | **Cobo 358**

Session Track: ■ International Cooperation to Expand ITS

Moderator: C. Michael Walton, Professor University of Texas at Austin, USA

12136 **ITS Horizon Scan 2.0: Examining the Larger Trends that will Impact Transportation**
Michael McGurrin, Senior Fellow, Transportation Systems, Noblis, USA

12644 **A Review and Analysis of State Regulatory Approaches to Automated Vehicles**
Eric Paul Dennis, Transportation Systems Analyst, Center for Automotive Research, USA

12645 **A Review and Analysis of the National Highway Traffic Safety Administration Preliminary Statement of Policy Concerning Automated Vehicles**
Eric Paul Dennis, Transportation Systems Analyst, Center for Automotive Research, USA

12753 **Barriers to Successful Implementation of a National DSRC Connected Vehicle Network**
Eric Paul Dennis, Transportation Systems Analyst, Center for Automotive Research, USA

TS07 – Routing Strategies for Improved Eco-Driving

Monday, September 8, 10:30 a.m. – 12:00 p.m. | **Cobo 359**

Moderator: Rasmus Lindholm, Partnership Services and Communications Director, ERTICO – ITS Europe, Belgium

12481 **Connectivity-Enhanced Route Selection and Adaptive Control for the Chevrolet Volt**
Jeffrey Gonder, Senior Engineer/Section Supervisor, National Renewable Energy Laboratory, USA

12563 **Eco-navigation Route Choice Evaluations With a Simplified, Macro-model for Fuel Consumption and Emissions Estimation**
Yunjie Zhao, Senior Researcher, Here, USA

13012 **A Methodology for Eco-Routing Based on Vehicle Fuel Consumption and Emissions**
Weixia Li, Student, Tsinghua University, China

13660 **Trip Prediction Using GIS for Vehicle Energy Efficiency**
Dominik Karbowski, Principal Research Engineer, Argonne National Laboratory, USA

13687 **A Connected Vehicle Supported Routing Strategy for Electric Vehicles**
Kakan Dey, Postdoctoral Fellow, Clemson University, USA

TS08 – Smart Parking 1

Monday, September 8, 10:30 a.m. – 12:00 p.m. | **Cobo 411 A**

Moderator: Rob Fitzpatrick, NICTA, Australia

12418 **Payment Platform Model for Parking — Parking Operator Approach**
Tami Koivuniemi, Chief Operating Officer, Finnpark Ltd., Finland

12584 **Parking Data Broker — Flexible Parking Data Management Across Enterprise and Beyond**
Ali Lattunen, Technology Specialist, Finnpark Ltd., Finland

13006 **Implementation of an Autonomous Parking System in a Parking Lot**
Po-Kai Tseng, Automotive Research & Testing Center, Chinese-Taipei

13407 **I-94 Truck Parking Information and Management System — Providing Value Through Success Management**
Collin Castle, Connected Vehicle Technical Manager, Michigan DOT, USA

13551 **Evaluation of Dynamic Parking Lot Vacancy Information Board at the Rest Area Entrance**
Tadahisa Muramatsu, Central Nippon Expressway Company Limited, Japan

TS09 – New Frontiers for ITS

Monday, September 8, 10:30 a.m. – 12:00 p.m. | **Cobo 411 B**

Moderator: Mark Dunzo, Senior Vice President Kimley-Horn and Associates, Inc, USA

12385 **Traffic Signal Control Using Cellular Communications**
Robert Blount, Communications Manager, Broward County Traffic Engineering Division, USA

13273 **MnPass Easy; Keeping the H.O.T. Lane Hot**
Brian Scott, Principal, SRF Consulting Group, Inc., USA

13716 **Integrating Roadway Tunnels Into the Regional Traffic Network**
David Markt, Transportation Solution Architect, Schneider Electric, USA

13726 **Innovations in Automated Airport Ground Transportation Management Systems**
Forrest Swonsen, Director, Airport Systems & Services, TransCore

13783 **Latest Achievements in the Operation of an Innovative AID System for Road Tunnels**
Peter Böhnke, Managing Director, ave GmbH, Germany

TS10 – Safety Based Sensor Systems

Monday, September 8, 10:30 a.m. – 12:00 p.m. | **Cobo 412 A**

Session Track: ■ Traffic Safety

Moderator: Bengt Hallstrom, Analyst and Senior Advisor, Swedish Transport Administration, Sweden

12251 **Improving Performance of DS/SS IVC Scheme Based on Location Oriented PN Code Allocation by Restricting Communication Distance**
Reiki Kusakari, Student, Tokyo University of Science, Japan

12450 **Elements to Consider for Parking Automation**
Yu Hiei, Inventor, Toyota Motor Corporation, Japan

13146 **Implementation of a Computer Vision Based Advanced Driver Assistance System in Tizen IVI**
Gorka Velez, Researcher, Vicomtech-IK4, Spain

13595 **Driving with Multi-dimensional Multi-view**
Anne Schmiedeberg, President, Car Buddy Corporation, USA

TS11 – Recent Developments in Data Collection

Monday, September 8, 10:30 a.m. – 12:00 p.m. | **Cobo 412 B**

Session Track: ■ Big Data and Open Data

Moderator: K. K. Saxena, Senior Vice President Kimley-Horn and Associates, Inc., USA

12394 **A Train Speed Measure and Arrival Time Prediction System for Highway-Rail Grade Crossings**
Laurence Rilett, Professor, University of Nebraska-Lincoln

13621 **License Plate Recognition as a Tool for Fiscal Inspection**
Cledson Sakurai, Professor, Universidade Federal de São Paulo, Brazil

12192 **Towards Risk Prediction Considering People Flow**
Mikio Sasaki, Project Manager, DENSO Corporation, Japan

12315 **Performance Evaluation of Transit Data Formats on a Mobile Device**
Sean Barbeau, Principal Mobile Software Architect for R&D, University of South Florida, USA

12846 **Gait Based Pedestrian Identification with Reducing Dependency of Accelerometer Position**
Takeshi Sawada, TOKAI RIKA Co., Ltd., Japan

TS12 – Implications of Driver Behavior on ITS System Performance

Monday, September 8, 3:00 p.m. – 4:30 p.m. | **Cobo 353**

Session Track: ■ Driver Behavior and Support

Moderator: Yasuhiko Nakano, Researcher Manager Fujitsu Laboratories Ltd., Japan

12630 **Assessing the Implications of Age on Applying Visual-manual Distraction Guidelines to Portable Telematics Interactions**
Yu Zhang, Senior Design Engineer, DENSO International American, Inc., USA

12789 **Driver Vehicle Interaction and the Impact of Interruption Type on Task Completion and Driving Performance of a Connected Vehicle System**
LaTanya Holmes, Research Associate, Virginia Tech Transportation Institute, USA

13096 **Prediction of the Meta-stability Phase Through Analysis of Driving Behavior**
Toshio Ito, Professor, Shibaura Institute of Technology, Japan

13103 **Effects of Auditory and Visual Secondary Tasks on Drivers' Vision: An Ergonomics Research for IVIS**
Tong Zhu, Associate Professor, Chang'an University, China

TS13 – Big Data Management and Analysis

Monday, September 8, 3:00 p.m. – 4:30 p.m. | **Cobo 354**

Session Track: ■ Big Data and Open Data

Moderator: Josh Johnson, SwRI, USA

12889 **Performance Metrics Trend Analysis of Features Present in Transportation Systems**
Alvaro Gil, Senior Research Scientist, Xerox Innovation Group, USA

13020 **A*DAX for Transport Data Management, Sharing and Analytics**
Wee Siong Ng, ead, Data Management Lab and Co-Director, I2R-LTA Joint Lab, Institute for Infocomm Research, Singapore

13238 **Management Procedures for Data Collected via Intelligent Transportation Systems**
Qiang Hong, Senior Research Scientist, Center for Automotive Research, USA

13308 **Big Trucks; Big Data: Opportunities for Improvements in Carrier Performance and Profitability**
Dan Filby, President, Transportation Services, First Advantage, USA

TS14 – Evaluating Deployments

Monday, September 8, 3:00 p.m. – 4:30 p.m. | **Cobo 355**

Moderator: Richard Harris, Solution Director, International Transportation and Government Xerox Services, UK

12896 **A Review of International ITS Procurement Methods and Recommendations on how to Improve ITS Procurement in Australia**
Clarissa Han, Senior Research Scientist, ARRB Group Ltd., Australia

13038 **Post-hoc Data Analyses of Four Regional ITS Deployments**
Vaishali Shah, Manager, Transportation Systems, Noblis, USA

13111 **Traveler's Motives for Adopting a New, Innovative Travel Service: Insights from the UbiGo Field Operational Test in Gothenburg, Sweden**
Jana Sochor, Researcher, Chalmers University of Technology, Sweden

13367 **Deploying ITS Services: Case Finland-Russia Smart Transport Corridor**
Karri Rantasila, Key Account Manager, VTT – Technical Research Centre of Finland, Finland

TS15 – Innovations in Bus Vehicle Systems

Monday, September 8, 3:00 p.m. – 4:30 p.m. | **Cobo 356**

Session Track: ■ Public Transit

Moderator: Tomoaki Abe, General Manager Panasonic Corporation, Japan

12083 **Improving the Quality of Public Transport Wireless LAN Based on Backhaul Performance**
Tsuyoshi Takahashi, Iwate Prefectural University, Japan

12579 **Bus Fleet Speed Guidance Strategy in VII Environment**
Tianzi Chen, Tongji University, China

12788 **Transit ITS Research: Dynamic Bus Operations**
Tim Witten, ITS/Special Projects Manager, Blacksburg Transit, USA

TS16 – Signal and Arterial Applications

Monday, September 8, 3:00 p.m. – 4:30 p.m. | **Cobo 357**

Moderator: Tim Brandstetter, ITS Engineer Kimley-Horn, USA

12500 **Vehicle and Pedestrian Signal Optimization at Intersection Utilizing Intelligent Vision Sensors**
Shunsuke Kamijo, Associate Professor, Institute of Industrial Science, The University of Tokyo, Japan

12818 **Does Adaptive Signal Control Work? Evaluating Oregon's Five Corridors with High-Resolution Performance Data**
Shaun Quayle, Senior Engineer, Kittelson & Associates, Inc., USA
Galen McGill, ITS Manager, Oregon DOT, USA

13106 **Minimal Sufficient Network: System for Optimal Traffic Sensor Evaluation and Placement on Arterial Roads**
Joanne Cheong, Manager, Intelligent Transport Information Management, Land Transport Authority of Singapore, Singapore

13670 **Individual Vehicle Level Evaluation of Loop, Video Image, and Microwave Detector**
Jinhwan Jang, Research Specialist, Korea Institute of Construction Technology, Korea

TS17 – ITS, Sustainability and Business Cases

Monday, September 8, 3:00 p.m. – 4:30 p.m. | **Cobo 358**

Session Track: ■ Sustainability

Moderator: Martin Russ, Managing Director, AustriaTech, Austria

12000 **ITS for Sustainable Mobility on Trans-European Networks — Example of Pan-European Corridor II**
Roman Himmler, Manager Business Development, Kapsch TrafficCom AG, Austria

12561 **The Economic Case for Connected Vehicle Infrastructure**
David Miller, Principal Systems Engineer, Siemens Road and City Mobility, USA

13105 **Towards Self-Sustaining 511 Systems**
Alan Clelland, Sr. Vice President, Iteris, USA

13784 **ITS Factory — Intelligence to Boost Smart Cities**
Aki Lumiaho, Head of Mobility and Innovation, RAMBOLL, Finland

TS18 – Challenges for Smart Cities

Monday, September 8, 3:00 p.m. – 4:30 p.m. | **Cobo 359**

Moderator: Nobuyuki Ozaki, Senior Fellow Toshiba Corporation, Japan

12008 **ITS Innovation Stockholm Kista — New Innovative ITS Solutions to Help Stockholm Commuters**
Jens Löfgren, Project Manager, Sweco, Sweden

12848 **Stepwise Approach to Technical Operations**
Konrad Weichmann, Senior Service Manager, Siemens AG, Germany

13033 **Real-time, On-line Simulation Development for Advanced, Integrated, Energy Efficient Green Port/ITS/ICT Operations in China**
Edmond Chang, President, CEO, EDCPC, Inc., USA

13217 **Adapting Municipal Service Delivery to the Digital Age —The Washington, D.C. Approach**
Soumya Dey, Director of Research & Technology Transfer, District DOT, USA

13689 **CIMU - Integrated Center for Urban Mobility — São Paulo, Brazil**
Olímpio Mendes de Barros, Engeneer, CET, Brazil

TS19 – Route Guidance Systems

Monday, September 8, 3:00 p.m. – 4:30 p.m. | **Cobo 411 A**

Moderator: Michael Harris, Kimley-Horn, USA

12657 **Street Scanner Geo Location**
J.R. Richardson, Sr. Principal Systems Engineer, Raytheon, USA

12184 **A New Option for ATIS: Hands-Free, Eyes-Free, Highway Advisory Smart Phone Application**
David Jones, Regional Manager ITS and Toll Technologies, HNTB Corporation, USA

12218 **Engineering a Statewide Travel Time Engine for Virginia**
David Robison, Principal Systems Engineer, Open Roads Consulting, USA

12452 **The Development of Traffic Estimation System in Distributed Stream Processing Architecture**
Wern-Sheng Shieh, Chunghwa Telecom Co., Ltd., Chinese-Taipei

13168 **A Distributed Approach for Harnessing Regional Knowledge in Transregional Vehicle Routing**
Tobias Kraus, Traffic Information Management and Route Optimization, BMW Group, Germany

TS20 – Road User Charging 1

Monday, September 8, 3:00 p.m. – 4:30 p.m. | **Cobo 411 B**

Session Track: ■ Economic Growth

Moderator: Sampo Hietanen, ITS Finland, Finland

12267 **Open Payment Systems for Transport and ITS Services**
Trond Foss, Senior Advisor, SINTEF Technology and Society, Norway

13442 **No GPS Required: Road Usage Charging and the Future of Transportation Finance**
Matthew Dorfman, Partner, D'Artagnan Consulting LLP, USA

13566 **The Convergence of ITS and Tolling**
Christopher Body, Vice President, Business Development, Kapsch TrafficCom North America, USA

TS21 – Traffic Safety Applications

Monday, September 8, 3:00 p.m. – 4:30 p.m. | **Cobo 412 A**

Session Track: ■ Traffic Safety

Moderator: Masao Fukushima, Technical Consultant R&D Engineering Management Division, Nissan Motor Co., Ltd., Japan

12198 **Lessons Learned from Evaluation of the Interactive Project and Next Steps Towards Evaluation of Automated Driving**
Felix Fahrenkrog, Manager Active Safety ADAS, Institut fuer Kraftfahrzeuge, RWTH Aachen University, Germany

12426 **A Trial of Real-time Server-based Cooperative System for Safety Use Case**
Yutaka Kamata, Assistant Chief Engineer, Honda R&D Co., Ltd., Japan

12998 **An Evaluation of Intelligent Roundabouts Under V2V and V2I**
Jeong-Eun Eom, Pukyong National University, Korea

13677 **Intelligent Turn Signals: A Vital Link to an Intelligent Transportation Future**
Richard Ponziani, President, RLP Engineering, USA

TS22 – Driver Support Systems on Personal Devices

Monday, September 8, 3:00 p.m. – 4:30 p.m. | **Cobo 412 B**

Session Track: ■ Driver Behavior and Support

Moderator: Roy Jose, Principal Architect Savari Networks, USA

12177 **A Dynamic Route Selection Methodology for Progressive Vehicle Navigation Applications**
Mohamad Abdul-Hak, Engineering Manager, Mercedes Benz Research and Development, USA

12733 **Investigation of the Efficacy of Information Provision Services through Cooperative ITS**
Daisuke Watanabe, researcher, National Institute for Land and Infrastructure Management, Japan

13498 **Vehicle Telematics: A Key Element to an Ecodriving Strategy in Commercial Vehicle Fleets**
Benoit Vincent, Senior researcher, FPInnovations, PIT, Canada

13682 **Counteracting Traffic Congestion Using Intelligent Feedback**
David Drum, Research Manager, University of Missouri, USA

13720 **White Labeling of Mobile Traffic Apps - A Practitioner Guide for Highway Authorities and Private Companies**
David Kamnitzer, Director, IBI Group, Canada
Matt Man, CEO, GreenOw Mobile, Canada

TS23 – Driver Assist Systems

Tuesday, September 9, 10:30 a.m. – 12:00 p.m. | **Cobo 353**

Session Track: ■ Driver Behavior and Support

Moderator: Natasha Merat, Associate Professor, University of Leeds, UK

12468 **Providing Real-time Driving Volatility Information**
Jun Liu, Research Assistant, The University of Tennessee, Knoxville, USA

12863 **Map Based Intersection Collision Avoidance**
Erdem Ergen, Analysis and Design Leader, KocSistem, Turkey

13220 **A Vehicle Behavior Analysis: When the Merging Support Information is Provided in Urban Highway Using a Driving Simulator**
Toshiyuki Nakamura, Assistant Professor, Department of Urban Management Graduate School of Engineering, Kyoto University, Japan

13065 **Quick Response Code as an Alternative Solution to Classical V2I Communication System**
Jitendra Shah, Research Engineer, Ford Research Center Aachen GmbH, Germany

13604 **Development of an Advisory Response Model for a Connected Vehicle Enabled Freeway Merge Assistance System: Interim Status**
Tanveer Hayat, Graduate Research Assistant, Center for Transportation Studies, USA

TS24 – Road User Charging 2

Tuesday, September 9, 10:30 a.m. – 12:00 p.m. | **Cobo 354**

Session Track: ■ Economic Growth

Moderator: Takakazu Tsuji, Executive Manager Mitsubishi Heavy Industries, Ltd., Japan

12914 **Congestion Charging: Influence of Public Consciousness on Acceptability in Jakarta Metropolitan Area**
Sugiarto -, Doctoral Student, Department of Civil Engineering, Nagoya University, Japan

12027 **European Nationwide ETC Systems — Retire or Refurbish?**
Michael Bibaritsch, CEO & Senior Consultant, Prime Consulting Services, Austria

12444 **New Functions of the Electric Toll Collection System**
Yotaro Nagai, West Nippon Expressway Company Limited, Japan

13383 **Innovative Enforcement Systems for Road Tolls**
Per Ola Clemedtson, project manager, NetPort Science Park, Sweden

13545 **Integrated System Delivery of a Tolling and Traffic Management System for the Capital Beltway I-495 Express Lanes Design BuildProject in Virginia**
Olu Adeyinka, Electronic Tolling & Traffic Management Systems Manager, Transurban, USA

TS25 – Data Sharing and Open Source Data

Tuesday, September 9, 10:30 a.m. – 12:00 p.m. | **Cobo 355**

Session Track: ■ Big Data and Open Data

Moderator: Amit Jain, Director Corporate Strategy & Business Development, Verizon, USA

12414 **Open Data: Challenges and Opportunities for Transit Agencies**
Carol Schweiger, Vice President, TranSystems Corporation, USA

13186 **Open Source Development Model for Transportation Industry: Case Study District DOT**
Rakesh Nune, Systems Engineer, District DOT, USA

13214 **The TMDD Standard — Data Aggregator for the Infrastructure**
Patrick Chan, Senior Technical Staff, Consensus Systems Technologies, USA

13494 **Implementing the IDTO Bundle: Leveraging Today's Emerging Technology to Benefit the Traveling Public**
Thomas Timcho, Senior Research Scientist, Battelle Memorial Institute, USA

TS26 – Driving Safety

Tuesday, September 9, 10:30 a.m. – 12:00 p.m. | **Cobo 356**

Session Track: ■ Traffic Safety

Moderator: Luisa Andreone, Program Manager, Centro Ricerche Fiat (CRF), Italy

13174 **Acoustic Segmentation, Identification and Localization of Emergency Vehicles for Safer and Comfortable Driving**
Sacha Vrazic, Head of German Research Office, IMRA EUROPE S.A.S., Germany

13296 **Characteristics Between Driving Operation and Brain Activity in Curve Sections**
Shuguang Li, Ph.D. Candidate, Graduate School of Engineering, The University of Tokyo, Japan

13435 **Influence of the Driving Context in the Controllability Assessment**
Andreas Puetz, Scientific Assistant, Institut für Kraftfahrzeuge (ika), RWTH Aachen University, Germany

13785 **Rider and Powered Two-wheeler Mobility Through Industry and User Communities Cooperation**
Aki Lumiaho, Head of Mobility and Innovation, RAMBOLL, Finland

TS27 – Congestion and Demand Management

Tuesday, September 9, 10:30 a.m. – 12:00 p.m. | **Cobo 357**

Moderator: Kian Keong Chin, Chief Transportation Engineer & Group Director Land Transport Authority, Singapore

12743 **The Tel Aviv Fast Lane — HOT Lane Management in Israel**
Andy Gill, Business Development Manager, Siemens plc, UK

13189 **Demand Management to Solve Congestion and Air Quality Issues**
Andy Gill, Business Development Manager, Siemens plc, UK

13703 **On the Brink of Change; A Look at the Evolution of a Managed Lanes Project in South Florida**
Alicia Torrez, Sr. Public Information Officer, Media Relations Group

TS28 – ITS Weather Systems 1

Tuesday, September 9, 10:30 a.m. – 12:00 p.m. | **Cobo 358**

Moderator: Ram Kandarpa, Lead Associate Booz Allen Hamiliton, USA

12887 **Evaluation of Weather Responsive Variable Advisory Speed System in Portland, Oregon**
Matthew Downey, Graduate Research Assistant, Portland State University Department of Civil and Environmental Engineering, USA

13043 **Road Weather Applications and End-user Services of FOTsis**
Pertti Nurmi, Head of Meteorlogical Research Applications, Finnish Meteorological Institute, Finland

13124 **ITS Technology for Winter Road Management**
Kinta Hoshi, Construction Consultant, NEXCO Engineering Niigata Co., Ltd., Japan

13241 **Development and Deployment of Innovative Weather Responsive Traffic Management Strategies**
Deepak Gopalakrishna, Program Manager, Critical Infrastructure Transportation Operations (CITO), Battelle, USA

13480 **An All-Weather Above-Ground Traffic Sensor**
Saad Bedros, Technical Research Manager, Image Sensing Systems, USA

TS29 – Developments in Probe Data Collection

Tuesday, September 9, 10:30 a.m. – 12:00 p.m. | **Cobo 359**

Moderator: Yvonne Barnard, Project Manager, ERTICO – ITS Europe, Belgium

12648 **Innovative Evaluation of Third Party Probe Vehicle Data**
Charles Lattimer, Sr. Project Manager, Atkins, USA

12783 **Assessing Network Changes Attributed to Opening a New 67 Mile Segment of I-69 Using Field Data from Bluetooth Probe Vehicles**
Stephen Remias, Transportation Research Engineer, Purdue University, USA

13299 **Cellular Probe Technologies Moving Forward: The Current Trends and Perspectives on 3G, 4G, and Smartphone Applications**
Meredith Cebelak, Graduate Research Assistant, University of Texas at Austin, USA

13370 **Examples of Utilization Systems for Probe Information Obtained from ITS Spots**
Hidetaka Saji, Guest Researcher, National Institute for Land and Infrastructure Management (NILIM), Japan

TS30 – Public Transportation Modeling

Tuesday, September 9, 10:30 a.m. – 12:00 p.m. | **Cobo 411 A**

Session Track: ■ Public Transit

Moderator: Philip Kilby, Principal Researcher NICTA and ANU, Australia

13269 **Improvement of Bus Arrival Time Estimation Model by Weighted Moving Average Method**
Jisoo Kim, Researcher, Korea Institute of Civil Engineering and Building Technology, Korea

13188 **Near-side Bus Stop with Queue Jumper Lane Under Connected Vehicles**
Jia Hu, Research Assistant, University of Virginia, USA

13597 **Investigation of the Impact of Bus Blockage on Performance of Signalized Intersections by Using the Cell Transmission Model**
Metin Mutlu Aydin, Research Assistant, Akdeniz University, Turkey

TS31 – Innovative Traffic Data Collection and Analysis Strategies

Tuesday, September 9, 10:30 a.m. – 12:00 p.m. | **Cobo 411 B**

Session Track: ■ Big Data and Open Data

Moderator: Paul Avery, Manager, Cooperative Systems R&D SwRI, USA

12633 **GNSS Pseudorange Evaluation Using 3-dimensional Map**
Shunsuke Kamijo, Associate Professor, The University of Tokyo, Japan

12089 **Polycentricity of the Urban Structure: Spatial Movements Analysis in Shanghai with Smart Card Data**
Weifeng Li, Key Laboratory of Road and Traffic Engineering of the Ministry of Education, Tongji University, China

12673 **An Approach for Rail Transit Ridership Analysis Based on Large-scale Mobile Phone Data**
Weifeng Li, Key Laboratory of Road and Traffic Engineering of the Ministry of Education, Tongji University, China

13070 **Forecasting Changes of Traffic Flow Caused by Road Incidents**
Wei Liu, Researcher, National ICT Australia, Australia

13179 **An Approach for Home-Workplace Spatial Organization Analysis Based on Large-Scale Mobile Phone Data**
Xiaoyun Cheng, Ph.D. Candidate, Key Laboratory of Road and Traffic Engineering of the Ministry of Education, Tongji University, China

TS32 – Innovations in Video and Aerial Sensing

Tuesday, September 9, 10:30 a.m. – 12:00 p.m. | **Cobo 412 A**

Moderator: Chris Bax, Managing Director, Cubic ITMS Ltd., UK

12096 **Exemplar-based Object Detection using Car-mounted Fisheye Cameras for 360-degree Object Detection**
Chikao Tsuchiya, Researcher, Nissan Motor Co., Ltd., Japan

12946 **Using Unmanned Aerial Vehicles for Traffic and Road Management**
Erwin Vermassen, Managing Director, Nimera BVBA, Belgium

13373 **The First Step Approach for Neuro-ITS — An Investigation on Multi-view Scenes**
Mikio Sasaki, Project Manager, DENSO Corporation, Japan

13608 **Evaluating the Use of Unmanned Aerial Vehicles for Transportation Purposes: A Michigan Demonstration**
Colin Brooks, Senior Research Scientist, Michigan Tech Research Institute (MTRI), USA

TS33 – National Efforts to Plan and Deploy ITS Systems

Tuesday, September 9, 10:30 a.m. – 12:00 p.m. | **Cobo 412 B**

Session Track: ■ International Cooperation to Expand ITS

Moderator: Rob Fitzpatrick, NICTA, Australia

12301 **Johannesburg (Economic Hub of South Africa):A Smart, Sustainable City Through ITS**
Darryll Thomas, Department Head: Mobility & Freight, Johannesburg Roads Agency, South Africa

12382 **National Transport Management in Sweden**
Stefan Janson, Director, Conako, Sweden

12471 **ITS Deployment in Africa**
Abiyu Berlie, MTA Bridges & Tunnels, USA

13547 **ITS Development in the Arab Middle East: Planning and Design**
James Powell, Principal Engineer, CDM Smith Inc., USA

12589 **Abu Dhabi Multimodal ITS Strategy & Action Plan (Business Opportunities in the UAE)**
Salah Al-Marzouqi, Director Integrated ITS Division, Abu Dhabi Department of Transport, United Arab Emirates

TS34 – Cooperative Systems Research and Development

Tuesday, September 9, 1:00 p.m. – 2:30 p.m. | **Cobo 353**

Session Track: ■ Connected Vehicles & Cooperative Systems

Moderator: Louis Sanders, Director, Technical Services America Public Transportation Association, USA

12194 **The Estimated Truth Will Evolve on Neuro-ITS**
Mikio Sasaki, Project Manager, DENSO Corporation, Japan

13513 **Intelligent Network Flow Optimization (INFLO) Prototype Development and Testing — An Overview and Status**
Theodore Smith, Regional Manager, Battelle, USA

13516 **Response, Emergency Communications, Uniform Management, and Evacuation (R.E.S.C.U.M.E.) Prototype Development and Testing — An Overview and Status**
Theodore Smith, Regional Manager, Battelle, USA

13616 **Taxi Hailing System Using Connected Vehicle Technology**
Mohammad Hoque, Assistant Professor, East Tennessee State University, USA

13684 **Extending Connected Vehicle and Cooperative System Concepts to Non-motorized and Vulnerable Transportation System Users**
Robert Bertini, Professor, Portland State University, USA

TS35 – Real Time Information for Mulitmodal ITS Applications

Tuesday, September 9, 1:00 p.m. – 2:30 p.m. | **Cobo 354**

Moderator: Patrick Malléjacq, Director of European and International Affairs, IFSTTAR, France

12757 **Web-based Dynamic Routing and Scheduling System for Smes: Concept and Perspective**
Tomio Miwa, Associate Professor, Nagoya University, Japan

13003 **A Study on the Real-time Scheduling and Routing for the Major Online Supermarket**
SeungHyun Kim, Pukyung national university, Korea

13125 **Real-time Travel Information Using Bus AVL Data**
Yingying Chen, Associate Professor, SUPCON I.T., China

13257 **Co-modal Adaption Between Modes of Transport — River Information Services for River Göta Älv**
Mathias Karlsson, Researcher, Sustainable Transports, Viktoria Swedish ICT, Sweden

13659 **Potentials of ITS-Applications and Traffic Information for Consignors, Consignees and Logistics Service Providers**
Andreas Pell, Research Associate, University of Applied Sciences Upper Austria, Austria

TS36 – Policy and Strategy Benefits and Lessons Learned in ITS

Tuesday, September 9, 1:00 p.m. – 2:30 p.m. | **Cobo 355**

Session Track: ■ International Cooperation to Expand ITS

Moderator: Sing Mong Kee, President ITS Singapore, Singapore

12593 **Unlocking the Benefits of ITS**
Mark Byrne, Vice President Sales, Xerox Business Services (Australia) Pty Ltd., USA

12867 **Safety and Road Closure Benefits of Rural Interstate Variable Speed Limit System**
Rhonda Young, Associate Professor, University of Wyoming, USA

13212 **FAST-TRAC — 20 Years of Innovation-Benefits and Lessons Learned**
Ahmad Jawad, ITS Manager/ Signal Systems Engineer, Road Commission for Oakland County, USA

13712 **The Benefits of Transportation Management Center Performance Measure Reporting**
Oladayo Akinyemi, Manager, SEMTOC, Michigan DOT, USA

TS37 – Aspects of Multimodal Public Transportation

Tuesday, September 9, 1:00 p.m. – 2:30 p.m. | **Cobo 356**

Session Track: ■ Public Transit

Moderator: Brendon Hemily, Public Transportation Consultant ITS America, Canada

12115 **Results and Public Opinion on a Full-scale Implementation of Co-modal Travel Services, Including Park and Ride, in Gothenburg Sweden**
Peter Wessel, Senior Consultant ITS, Iterio AB, Sweden

12837 **Development of a Multi-Modal Transportation Framework in Hangzhou**
Yingying Chen, SUPCON Information Technology Co. Ltd., China

13454 **Development of An Integrated Public Transportation System Based in a Train Station**
Yousuke Hidaka, Researcher, East Japan Railway Company, Japan

13737 **APIs and French Journey Planners Interoperability**
Jean Seng, Multimodal information policy officer, French Ministry of Transport, France

13753 **Reorganization of the Mobility Service Provision — Public Governance as a Contributor**
Sonja Heikkilä, Transportation Engineer, Helsinki City Planning Department, Finland

TS38 – Commercial Vehicle Enforcement Strategies

Tuesday, September 9, 1:00 p.m. – 2:30 p.m. | **Cobo 357**

Session Track: ■ Freight

Moderator: Eric Louette, Officer, Ministry of Ecology, Sustainable Development and Energy, France

13032 **High Accuracy Weight in Motion Enforcement System Implementation and Testing**
Michal Karkowski, Telematic Team Manager, Road and Bridge Research Institute, Poland

12754 **Using On-Board Electronic Logbook Data to Analyze Truck Driver Schedules and the Hours-of-Service Rules**
Jeffrey Short, Sr. Research Associate, American Transportation Research Institute, USA

13745 **Use the Toll System in the Detection of Overweight Cargo Vehicles & Use of Traffic Management Data in the Modernization of a Key Highway**
Karel Feix, Managing Director, Kapsch Telematic Services, Czech Republic

12524 **Dynamic Force Sensing — Dynamic Axis Scale with High Speed and Heavy Running Vehicle**
Eiichi Tada, CEO, Sensing Technologies KK Japan, Japan

TS39 – Management of Shared and Electric Vehicles

Tuesday, September 9, 1:00 p.m. – 2:30 p.m. | **Cobo 358**

Session Track: ■ New Mobility

Moderator: Makoto Miwa, Technical Advisor Ricoh Company Ltd., Japan

12397 **Development of Personal Mobility Sharing System — Use of Segway as Personal Mobility —**
Naohisa Hashimoto, AIST, Japan

12742 **Competence Area of Electric Vehicles and Relevance of An ITS Support for Transport and Parking Issues**
Marco Bottero, Researcher and Project Manager, SWARCO, Italy

13543 **Multiple Station Shared Vehicle Systems Design and Operations Modeling Framework**
Akhtar Hossain, Course Developer, Algonquin College, Canada

TS40 – Human-Machine Interface Evaluation

Tuesday, September 9, 1:00 p.m. – 2:30 p.m. | **Cobo 359**

Session Track: ■ Driver Behavior and Support

Moderator: Richard Hanowski, Director, Center for Truck & Bus Safety VTTI, USA

12587 **Eye Glance Time Reduction Using AR Lane Guidance**
Yoshito Kondo, Engineer, AISIN AW Co., Ltd., Japan

12996 **Evaluation of Navigation Displays by Analysis of Gaze Direction in a Driving Simulator**
Kimihiko Nakano, Associate Professor, The University of Tokyo, Japan

13176 **Fundamental Study of In-vehicle Information Provision Based on Cognitive Workload of Elderly Drivers When Approaching an Intersection**
Toshiki Nakamura, Keio University, Japan

13772 **Passenger Presence Effect on Elderly Drivers Evaluated by a Driving Simulator**
Kaechang Park, Visiting Professor, Kochi University of Technology, Japan

13773 **A New Driving Ability Test to Predict Risks of Traffic Accident Types According to Ages and Leukoaraiosis**
Kaechang Park, Visiting Professor, Kochi University of Technology, Japan

TS41 – Tools for Providing Statewide and Metropolitan Area Enforcement Incident and Emergency Management

Tuesday, September 9, 1:00 p.m. – 2:30 p.m. | **Cobo 411 A**

Moderator: Andy Rooke, Senior Project Manager, ERTICO – ITS Europe, Belgium

13180 **Critical Infrastructure Protection System: 3rd Street, NW Tunnel – Washington, D.C.**
Rakesh Nune, Systems Engineer, District DOT, USA

12988 **Research for Highway Network Management and Emergency Management Platform of Guangdong**
Ling Sun, National ITS Research Center, Research Institute of Highway Ministry of Transport, China

13281 **Effectively Managing and Sharing Statewide Video and Data**
James Knowlton, Director of Operations, Open Roads Consulting, USA

TS42 – Road User Charging 3

Tuesday, September 9, 1:00 p.m. – 2:30 p.m. | **Cobo 411 B**

Session Track: ■ Economic Growth

Moderator: Brian Negus, General Manager, Public Policy Royal Automobile Club of Victoria (RACV), Australia

12005 **Examination on Cooperation of ETC and Axle Load Scale**
Ken Chikamatsu, Facilities Research Department, ETC Division, Nippon Expressway Research Institute Company Limited, Japan

12080 **GNSS Road User Charging in America**
Brian Michie, Founder/Senior Vice President, EROAD Inc, USA

12361 **Present Situation and Future Prospect of ETC Services in Japan**
Yuji Tamura, Senior Associate Manager, Organization for Road System Enhancement, Japan

TS43 – Planning and Deployment

Tuesday, September 9, 1:00 p.m. – 2:30 p.m. | **Cobo 412 A**

Moderator: Ron Pati, Director of Engineering Schneider Electric, USA

12505 **Planning Needs & Gap Analysis for Safety Pilot Connected Vehicle Infrastructure Deployment**
Brian Reed, Manager Geospatial & Applied Technologies, Parsons, Brinckerhoff, USA

12865 **Deployment Strategies for Safety Pilot Connected Vehicle Infrastructure**
Brian Reed, Manager Geospatial & Applied Technologies, Parsons, Brinckerhoff, USA

13392 **NorSIKT - Nordic System for Intelligent Vehicle Classification**
Torbjørn Haugen, Associate Professor, NTNU - Norwegian University of Science and Technology, Norway

13522 **West Michigan ITS Network Upgrade, An Integrated Approach**
Suzette Peplinski, Traffic Safety & Operations Engineer, Michigan Dept. of Transportation, USA

13681 **Pilot Program for the Implementation of Information Exchange Processes and Interoperability Protocols Between Control and Operation Centers on toll and Free Roads, in the National Roads Network of Mexico**
Antonio Galletero, Project Manager, Senermex, S.A. de C.V., Mexico

TS44 – Connected Vehicle Applications

Tuesday, September 9, 1:00 p.m. – 2:30 p.m. | **Cobo 412 B**

Session Track: ■ Connected Vehicles & Cooperative Systems

Moderator: Frank Försterling, Head, Advanced Development and Innovations Infotainment & Connectivity, Continental Automotive GmbH, Germany

13540 **Driver-assistive Truck Platooning and Highway Safety: Features for Drivers, Fleet Managers and Highway Officials**
Joshua Switkes, CEO, Peloton Technology, USA

13336 **Design, Implementation and Field Trail of DSRC-based Transit Signal Priority System**
Andy An-Kai Jeng, Industrial Technology Research Institute (ITRI), Chinese-Taipei

13381 **Potential Safety Benefits of Automatic Collision Notification — A Case by Case Analysis**
Maria Ohlin, Project Engineer, Chalmers University of Technology, Sweden

13729 **A Methodology to Deal with Priority for Intelligent Vehicles in a Segment of a Single Lane Highway**
Ricardo Reghelin, Professor, Federal Institute of Science and Technology, Brazil

13786 **Deployment Challenges for Truck Platooning**
Wei-Bin Zhang, Research Engineer, California PATH, University of California - Berkeley, USA

TS45 – Energy and Emission Impacts of ITS

Wednesday, September 10, 8:30 a.m. – 10:00 a.m. | **Cobo 111 A**

Session Track: ■ Sustainability

Moderator: Masahiko Ikawa, Head Researcher Mitsubishi Electric Corp., Japan

12806 **Combining Speed and Dwell Time Advisories for Improving Bus Ride Comfort**
Marcin Seredynski, Senior Researcher, Public Research Centre Henri Tudor, Luxembourg

12856 **Public Transport Priority: An Energy Saving ITS Measure**
Marco Bottero, Researcher and Project Manager, SWARCO, Italy

13439 **Analysis of Fuel Economy Improvement in the Eco-driving Pilot Program with ITS**
Hideki Kato, Toyota Transportation Research Institute, Japan

13569 **Optimal Design of Energy Harvesting Vehicle Suspension Systems**
Bo Huang, Ph.D. Student, Simon Fraser University, Canada

13622 **Connected, Automated, Zero-Emission Cars are Essential for Improving Livable, Sustainable Communities**
John Niles, Research Director, Center for Advanced Transportation and Energy Solutions — CATES, USA

13686 **Assessing Energy Impact of Traffic Management and ITS Technologies**
Vadim Sokolov, Engineer, Argonne National Laboratory, USA

TS46 – Advanced Vehicle Systems

Wednesday, September 10, 8:30 a.m. – 10:00 a.m. | **Cobo 353**

Moderator: Myra Blanco, Director, Center for Automated Vehicle Systems Virginia Tech Transportation Institute, USA

12180 **A Novel Channel Scheduling in IEEE 1609 Vehicular Networks**
Tien-Yuan Hsieh, Engineer, Industrial Technology Research Institute, Chinese-Taipei

12432 **The Development of Remote Diagnostic System for Internet-connected Vehicles**
Chu-yuan Hsu, Automotive Research & Testing Center, Chinese-Taipei

12527 **Calibrating Relative Pose of Non-Overlapping In-Vehicle Cameras with Laser Pointer**
Shigang Li, Faculty of Engineering, Tottori University, Japan

13242 **The Application of the Human-in-the-Loop Warning Messages Notification Model in the Design of Vehicle-to-Infrastructure (V2I) Communication Systems**
Yiqi Zhang, University at Buffalo, USA

13344 **Mobility Impacts of Cooperative Adaptive Cruise Control (CACC) Under Mixed Traffic Conditions**
Joyoung Lee, Assistant Professor, New Jersey Institute of Technology, USA

TS47 – Cooperative Vehicle Field Test Programs

Wednesday, September 10, 8:30 a.m. – 10:00 a.m. | **Cobo 354**

Session Track: ■ Connected Vehicles & Cooperative Systems

Moderator: Jean-Charles Pandazis, Head of Sector EcoMobility, ERTICO - ITS Europe, Belgium

12625 **Asset, Configuration & Maintenance Management for Safety Pilot**
Anthony Gasiorowski, Sr. Systems Engineer, Parsons, Brinckerhoff, USA

12628 **Network Architecture & Network Monitoring for Safety Pilot Connected Vehicle Infrastructure**
Anthony Gasiorowski, Sr. Systems Engineer, Parsons, Brinckerhoff, USA

13394 **Lessons Learned: Security and Privacy in Safety Pilot Model Deployment**
Andre Weimerskirch, Associate Research Scientist, University of Michigan Transportation Research Institute (UMTRI), USA

13549 **Detroit Builds First Urban Canyon Connected Vehicle Test Bed**
Colleen Hill-Stramsak, Transportation Department Manager, Hubbell, Roth & Clark, Inc., USA

13624 **Automating the Analysis of Field Operational Test Data for the Evaluation of Cooperative Systems**
Bart D. Netten, Senior Scientific Researcher, TNO, Netherlands

TS48 – ITS Weather Systems 2

Wednesday, September 10, 8:30 a.m. – 10:00 a.m. | **Cobo 355**

Moderator: Makoto Itami, Professor Tokyo University of Science, Japan

12231 **Improving the Efficiency of Road Weather Data Collection**
Rose Mooney, Applications Manager, Vaisala Inc., USA

12717 **Winter Maintenance Quality Monitoring and Stopping Distance Evaluation**
Jukka Pahkala, Technical Support Engineer, Noptel Oy, Finland

13057 **Framework for a Comparison and Demonstration of Seasonal Weight Restriction Models Using RWIS Data**
Dawn Gustafson, Michigan DOT, USA

13177 **AVL/GPS Use for Winter Maintenance**
Timothy Croze, Region Support Engineer, Michigan DOT, USA

13542 **Michigan DOT Road Weather Decision Support System**
Elise Kapphahn, ITS Engineer, Michigan DOT, USA

TS49 – Multimodal Signal Priority Management

Wednesday, September 10, 8:30 a.m. – 10:00 a.m. | **Cobo 356**

Session Track: ■ New Mobility

Moderator: Bruce Eisenhart, Vice President, Operations Consensus Systems Technologies, USA

12629 **Traffic Signal Priority, Business Architectures and Available Solutions - Challenges and Opportunities**
Andrew Somers, Specialist Consultant - Network Operations and ITS, Transoptim Consulting, Australia

12884 **Enhancing System Operations Through Improved Reliability & Resiliency of Traffic Signals in an Urban Environment**
Soumya Dey, Director of Research & Technology Transfer, District DOT, USA

12702 **Concept for Commuter Express Lanes on an Urban Arterial through Signal Priority**
Melissa Ackert, ATMS/TSM&O Program Engineer, Florida DOT, USA

12971 **Leveraging Existing Priority Control and Vehicle Detection Equipment to Create a Multi-modal Priority Control System with DSRC**
Kevin Eichhorst, System Architect, Global Traffic Technologies, USA

TS50 – Development in Road Pricing and Parking Management

Wednesday, September 10, 8:30 a.m. – 10:00 a.m. | **Cobo 357**

Moderator: Debo Shopade, Managing Consultant, ITS Nigeria/Genyz Transport Solutions, UK

12497 **iPark Video-based System to Identify Available Parking Locations Over Large Areas**
Seri Park, Assistant Professor, Villanova University, USA

13016 **Value Added services of the GNSS CN based Road Pricing System**
Tetsuya Adachi, Mitsubishi Heavy Industries, Ltd., Japan

13787 **Impacts of Differentiated Road Charges — A Proposed Model**
Gideon Mbiydzenyuy, Researcher, Blekinge Institute of Technology, Sweden

TS51 – Eco-Drive Management Systems

Wednesday, September 10, 8:30 a.m. – 10:00 a.m. | **Cobo 358**

Session Track: ■ Sustainability

Moderator: Yuji Nakajima, Senior Engineer Nissan Motor Co., Ltd., Japan

13794 **Study of Eco-Driving Support System for Hybrid Vehicle Considering Traffic Flow**
Katsuya Taguchi, Toyota Motor Corporation, Japan

12799 **Impact Assessment for Cooperative Urban Traffic Management Based on Microscopic Traffic Flow Simulation**
Klaas Rozema, CTO, Imtech Traffic & Infra, Netherlands

13095 **Installation of Environment Protection Management System (EPMS) to the Traffic Control Systems in Tokyo**
Aki Kabasawa, Traffic Regulation Division, Traffic Bureau, Metropolitan Police Department, Japan

TS52 – Corridor Based Travel Information

Wednesday, September 10, 8:30 a.m. – 10:00 a.m. | **Cobo 359**

Moderator: Moe Zarean, Vice President, Transportation Systems Iteris, USA

12570 **Study on Airport Access Behavior Modification by Providing Predictive Travel Time Information in Cases of Sudden Incident**
13285 **Multi-dimensional Geofencing**
Stan Young, Director, Center for Advanced Transportation Technology, Works Division, University of Maryland, USA

13588 **Examination of the Methods and Costs of Providing Traveler Information**
Gregory Yova, President, Qvision Technology, USA

12807 **Comparison of National Performance Measure Data Set (NPMRDS) with Bluetooth Traffic Monitoring (BTM) Data and I-95 Corridor Coalition Vehicle Probe Project (VPP) Data**
Kartik Kaushik, Research Assistant, University of Maryland, USA

TS53 – Safety System Sensors

Wednesday, September 10, 8:30 a.m. – 10:00 a.m. | **Cobo 411 A**

Session Track: ■ Traffic Safety

Moderator: Francois Fischer, Senior Project Manager, ERTICO – ITS Europe, Belgium

12451 **Suppression of Interference Wave by Employing Staggered PRIon Two Frequency Interrupted CW Radar**
Takayuki Inaba, Professor, The University of Electro Communications, Japan

12956 **Measuring the Performance of Active Safety Algorithms and Systems**
Tony Gioutsos, Director Sales and Marketing, Tass International, USA

13399 **A Reliable Lane Detection Using Steerable and Average Filters**
Seunghwa Hyun, Master Student, Kyungpook National University, Korea

13455 **Integrated Approach to Enable Real World Testing in Public Traffic by Complex Scenario Interpretation**
Daniel Jones, Software Developer, Ibeo Automotive Systems GmbH, Germany

TS54 – Vehicle Detection and Location by Video, Sensors, and Probes

Wednesday, September 10, 8:30 a.m. – 10:00 a.m. | **Cobo 411 B**

Session Track: ■ Connected Vehicles & Cooperative Systems

Moderator: Jean Michel Henchoz, Technical Manager Denso Corporation, Belgium

13239 **Strain Gauge Strip Sensor for Precision Weigh-in-motion System**
Kai Kroll, Research Consultant, Intercomp Co., USA

13310 **Road Intersection Monitoring from Video with Large Perspective Deformation**
Takashi Furuya, Graduate Student, University of Pennsylvania, USA

13337 **BlueEye: A Bluetooth-Based Vehicle Location Identification System for Queue Length Estimation at Signalized Intersections**
Mecit Cetin, Associate Professor, Old Dominion University, USA

13676 **Variability in Travel Time Measurement Studies by the Degree of Data Aggregation**
Aleksandar Stevanovic, Assistant Professor, Florida Atlantic University, USA

TS55 – Development of New ITS Algorithms

Wednesday, September 10, 8:30 a.m. – 10:00 a.m. | **Cobo 412 A**

Moderator: Robert Rausch, Vice President TransCore, USA

12307 **Random Forest Travel Time Prediction Algorithm Using Spatiotemporal Speed Measurements**
Hesham Rakha, Professor of Civil and Environmental Engineering and Director Centre for Sustainable Mobility, Virginia Tech, USA

12310 **Congestion Prediction Using Adaptive Boosting Machine Learning Classifiers**
Hesham Rakha, Professor of Civil and Environmental Engineering and Director Centre for Sustainable Mobility, Virginia Tech, USA

12612 **Cloned Vehicle Detection Approach Based on the Shortest Paths and License Plate Recognition Algorithms**
Feng Wang, associate professor, Henan University of Technology, China

13740 **An Automatic Calculation Method of Identifying the Hysteresis Loop Characteristics in Macroscopic Fundamental Diagram**
Zhe Xu, Graduate Student, University of Wisconsin at Madison, USA

TS56 – Road User Charging 4

Wednesday, September 10, 10:30 a.m. – 12:00 p.m. | **Cobo 412 A**

Session Track: ■ Economic Growth

Moderator: Trevor Platt, Sales and Marketing Manager, Nicander Ltd., UK

12249 **Vehicle Axle Counting Using Two LIDARs for Toll Collection Systems**
Toshio Sato, Chief Scientist, Toshiba Corporation, Japan

13084 **Multi-Lane-Free-Flow Charging System Based on ID tag**
Ieuji Saku, Mitsubishi Heavy Industries, Ltd., Japan

13302 **SMART Tolling System Based on Multi-Lane Free-Flow**
Ryena Woo, Master´s course, Seoul Women's University, Korea

13402 **The 'F' Factor — Not Only Smart but Flexible Synergies of Traffic Control and Management Systems**
Daniel Scholz, Executive Sales Director, VITRONIC Machine Vision, Germany

TS57 – ITS Applications to Improve Traffic Flow

Wednesday, September 10, 10:30 a.m. – 12:00 p.m. | **Cobo 412 B**

Moderator: Masao Fukushima, Technical Consultant R&D Engineering Management Division, Nissan Motor Co., Ltd., Japan

11933 **Strategy of Practical Implementation of Signal Information Drive Systems**
Yasushi Domae, Senior Superintendent, National Police Agency, Japan, Japan

12298 **Performance Analysis of a Crossing Collision Prevention System Using Microscopic Traffic Simulator**
Yusuke Takatori, Assistant Professor, Kanagawa Institute of Technology, Japan

12812 **Traffic Light Assistant**
Michael Schuch, Vice President / Systems & Technology, SWARCO AG, Austria

12957 **Support Vector Machines — A Suitable Approach for a Prediction of Switching Times of Traffic Actuated Signal Controls**
Michael Schäfer, Promotional student, University of Kassel, Institute of Traffic Engineering and Logistics, Germany

13514 **Signal Phase and Timing for Connected Vehicles: A Discussion on ITS' Implementation and Challenges**
Thomas Timcho, Senior Research Scientist, Battelle Memorial Institute, USA

TS58 – Improving Intersection Safety with ITS

Wednesday, September 10, 10:30 a.m. – 12:00 p.m. | **Cobo 353**

Session Track: ■ Traffic Safety

Moderator: John Funny, Principal-in-Charge Grice Consulting Group, USA

12661 **Probabilistic Pedestrian Safety Modeling in Intersections Using a Surrogate Safety Measure**
Kaveh Gharieh, Ph.D. Student, Department of Civil and Environmental Engineering, Rutgers University, USA

11990 **Development and Operation of the New Push-button Signal Control System**
Akiyoshi Yamazaki, Traffic Regulation Division of Traffic Department of Saitama Prefectural Police, Japan

12332 **Improved Bike Safety at Traffic Signals via Better Detection**
Dan Nall, District Sales Manager, Roadway Sensors, Iteris, Inc., USA

12627 **Intersection Safety and Mobility System (SAMS)**
Christopher Flores, Director, Product Management, Sensys Networks Inc., USA

12938 **Priority of PT in Trondheim by Adaptive Signaling**
Kristin Kraakenes, Senior Engineer, NPRA, Norway

TS59 – Advanced Traffic Control Strategies

Wednesday, September 10, 10:30 a.m. – 12:00 p.m. | **Cobo 354**

Moderator: Jean-Francois Janin, Head of Mission, Ministry of Ecology, Sustainable Development, Transports and Housing, France

12140 **RoadRunner: Infrastructure-less Vehicular Congestion Control**
Jason Gao, Computer Scientist, Massachusetts Institute of Technology, USA

12535 **Reproducibility Enhancements of Traffic Simulator and ITS Performance Evaluation**
Hajime Sakakibara, Senior Assistant General Manager, Sumitomo Electric System Solutions, Co., Ltd., Japan

12580 **Sophistication of MPD Traffic Control System**
Tatsuya Seki, Traffic Facilities and Control Division, Tokyo Metropolitan Police Department, Japan

12823 **Exploring the Use of Advanced Traffic Management Systems (ATMS) to Mitigate Atypical Bottlenecks**
Mark Franz, Faculty Research Assistant, University of Maryland, USA

TS60 – Commercial Vehicle Operators

Wednesday, September 10, 10:30 a.m. – 12:00 p.m. | **Cobo 355**

Session Track: ■ Freight

Moderator: Der-Horng Lee, Professor National University of Singapore, Singapore

12665 **Innovative Solutions for Sustainable Urban Freight Transport**
Meng Lu, Program Manager International, Dutch Institute for Advanced Logistics, Netherlands

12880 **Container Number Database**
Clay Packard, Software Integration Manager, Florida DOT, USA

13048 **Empowering the Commercial Vehicle Fleet with V2X**
Steve Sprouffske, Manager, ITS Solutions and Pre Sales Group, Kapsch TrafficCom North America, USA

13398 **Analyzing Defined Tracking and Tracing Solutions for Intermodal International Transport of Dangerous Goods**
Christian Haider, University of Applied Sciences Upper Austria, Austria

13782 **Grade Adaptation for Improving Commercial Vehicle Fuel Economy — Experimental Results**
Rajeev Verma, Eaton Corp, USA

TS61 – Vehicle and Driver Communication Systems

Wednesday, September 10, 10:30 a.m. – 12:00 p.m. | **Cobo 356**

Moderator: James Misener, Independent Consultant, USA

12291 **Modernizing Hours-of-Service Compliance: Electronic Logbook**
Soona Lee, Senior Analyst - Strategy & Market Development, EROAD, New Zealand

13014 **Study About the Small Diversity Antenna for 5.9 GHz Band V2X Communication**
Yuji Sugimoto, Manager, NIPPON SOKEN INC., Japan

13133 **A Priority Based Transmission Scheme for Extended Channel Access in Vehicular Networks**
Jung-Hoon Song, Senior Research Engineer, Center for Embedded Software Technology, Korea

13224 **5.9 GHz V2X Modem Performance Challenges with Vehicle Integration**
Rick Zerod, Technical Fellow, Visteon Corporation, USA

13736 **Measuring Integrity of Navigation in Real-time**
Antti Lange, CEO, FKF-Corporation Ltd., Finland

TS62 – Cooperative Systems

Wednesday, September 10, 10:30 a.m. – 12:00 p.m. | **Cobo 357**

Session Track: ■ Connected Vehicles & Cooperative Systems

Moderator: Giacomo Somma, Project Manager, ERTICO - ITS Europe, Belgium

13387 **Compass 4D: Method to Implement Road Side Units**
Guilhem Autret, Technical Studies and Research Engineer, CEREMA, France

13426 **Successful Management of a Connected Vehicle and Infrastructure Model Deployment**
Debby Bezzina, Associate Research Scientist, UMTRI, USA

13061 **International Survey of Best Practices in Connected and Automated Vehicle Technology Research and Deployment**
Joshua Cregger, Industry Analyst, Center for Automotive Research, USA

13400 **SCORE@F : French Field Operational Test for Cooperative Systems**
Guilhem Autret, Technical Studies and Research Engineer, CEREMA, France

13675 **Connected and Automated Vehicle Testbeds in Michigan**
Matthew Smith, ITS Program Manager, Michigan DOT, USA

TS63 – Innovations in Rural ITS

Wednesday, September 10, 10:30 a.m. – 12:00 p.m. | **Cobo 358**

Moderator: Hideki Kato, Toyota Transportation Research Institute, Japan

12280 **Multi-Rural State ITS Data Sharing and Collaboration**
Robert White, Senior Manager III, Vermont Agency of Transportation, USA

12842 **Movable ITS for Intensive and Cost-Effective Traffic Management for a Large-scaled and Short-time-period Event Area**
Jin-Tae Kim, Professor, Korea National University of Transportation, Korea

12983 **Technical Paper Abstract - 2014 ITS World Conference — A Rural ITS Intersection Safety Application for Magnetometer Based Vehicle Detection Equipment**
Kyle Holgate, Technical Service and Test Engineer, Global Traffic Technologies, LLC, USA

13268 **Rural Intersection Conflict Warning Systems — A Minnesota Statewide Effort to Reduce Fatalities**
Ken Hansen, ITS Project Manager, Minnesota DOT, USA

TS64 – Developments in Connected and Autonomous Vehicle Systems

Wednesday, September 10, 10:30 a.m. – 12:00 p.m. | **Cobo 359**

Session Track: ■ Connected Vehicles & Cooperative Systems

Moderator: Mark Norman, Director, Technical Activities Division Transportation Research Board, USA

14272 **Outlook for Connected/Automated Vehicles: Points and Counterpoints**
Mark Norman, Director, Technical Activities Division, Transportation Research Board, USA

12041 **Black Box Design Approach for Optimal Stand-alone V2X and Integrated Active Safety Applications Implementation**
Faroog Ibrahim, Executive Director, Savari Networks, USA

13340 **Testing Impacts of Work Zone X2V Communication System on Safety and Air Quality in Driving Simulator**
Fengxiang Qiao, Associate Professor and Co-director, Texas Southern University, USA

13403 **Network of Automated Vehicles: the Autonet2030 Vision**
Arnaud de La Fortelle, Director of the Center for Robotics, Mines ParisTech, France

TS65 – Driver Assistance Systems

Wednesday, September 10, 10:30 a.m. – 12:00 p.m. | **Cobo 411 A**

Session Track: ■ Driver Behavior and Support

Moderator: Vincent Blervaque, Director, ITS got Solutions, Belgium

12758 **Development of the Device to Prevent Wrong-way Driving**
Yuichi Mizushima, Manager of Planning Section, Planning Department, NEXCO Engineering Niigata.Co., Ltd., Japan

13041 **Designing of Active Front Steering Using Dynamic Inversion**
Inseok Yang, Post-Doctoral Researcher, Center for IT & Automobile Convergence, Korea

13457 **Human-Machine Cooperation in Highly Automated Driving**
Martin Krähling, Engineer, Ibeo Automotive Systems GmbH, Germany

13529 **Evaluation and Testing of Driver Assistive Truck Platooning for Near Term Deployment**
Richard Bishop, Principal, Bishop Consulting, USA

TS66 – Advanced Corridor Management 1

Wednesday, September 10, 10:30 a.m. – 12:00 p.m. | **Cobo 411 B**

Moderator: Sorawit Narupiti, Associate Professor Chulalongkorn University, Thailand

13109 **Data Management and Integration of a Multi-Modal and Multi-Agency Integrated Corridor Management System**
Fariel Bouattoura, New York Area Manager, Smart Infrastructure, Schneider Electric, USA

13062 **MDOT Metro Region Integrated Corridor Management Projects**
Michael Scheuer, Supervising Traffic Engineer, Parsons Brinckerhoff, USA

13246 **AZTech: An Approach for a Low Cost ICM Program**
Nicolaas Swart, Division Manager, Maricopa County DOT, USA

13460 **Dynamic Corridor Congestion Management in the Los Angeles South Bay**
Allen Chen, ITS Project Manager, Caltrans, USA

13508 **Multi-Agency Fast-Tracked ITS Deployment - I-90/39/88 Problem Solving**
Scott Lee, Delcan, USA

TS67 – Application of SmartPhone Technology to Improve Mobility

Wednesday, September 10, 1:30 p.m. – 3:00 p.m. | **Cobo 411 A**

Session Track: ■ New Mobility

Moderator: Jeffery Dale, Senior ITS Engineer Kimley-Horn, USA

12541 **Connected Car: The Story of a 21st Century Driver**
Eugene Tsyrklevich, Founder and CEO, Parkopedia

12761 **Creating Big Data for Pavement Maintenance Management of Unsprung Movement Information from Sprung Acceleration**
Koichi Yagi, CEO, BumpRecorder Co., Ltd., Japan

12952 **Impact Evaluation Methodology for Collaborative Transport Applications**
Merja Penttinen, Senior Scientist, Finnish Transport Agency, Finland

13132 **Changing Travel Behavior Through Incentives Using a Smartphone Application with Automatic Travel Behaviour Detection — Results from Gothenburg**
Anders Hjalmarsson, senior researcher, Viktoria Swedish ICT, Sweden

13323 **Enhancing Mode Choice via Crowdsourcing and Decentralization of Routing and Scheduling**
Santosh Mishra, Senior Transportation Planner, TranSystems Corporation, USA

TS68 – New Uses for Roadside Equipment

Wednesday, September 10, 1:30 p.m. – 3:00 p.m. | **Cobo 411 B**

Session Track: ■ Connected Vehicles & Cooperative Systems

Moderator: Martin Böhm, Head of Unit ITS Deployment AustriaTech GmbH, Austria

12947 **Modeling and Characteristics of Traffic State Generation from Loop Detector Based on Vehicular Trajectory Data**
Han Yang, Ph.D., Key Laboratory of Road Traffic Engineering of the Ministry of Education, Tongji University, China

13204 **Characteristics and Performance Level of the USN-based Portable Reference Equipment Developed to Overcome the Shortcomings of the Laser Sensor-based PORE for ITS Systems Performance Evaluation**
Sang Hyup Lee, Korea Institute of Construction Technology, Korea

13322 **Approach on the License Plate Recognition System Performance Improvement**
Yusuke Yasuhara, Sumitomo Electric System Solutions Co., Ltd., Japan

TS69 – Advanced Traffic Management 1

Wednesday, September 10, 1:30 p.m. – 3:00 p.m. | **Cobo 412 A**

Session Track: ■ Traffic Management

Moderator: Shigetoshi Tamoto, General Manager, Global ITS Business Dept., Systems & Electronics Div. Sumitomo Electric Industries, Ltd., Japan

13379 **Co-operative Road Weather Information - Slipperiness Detection**
Pasi Pyykönen, Research Scientist, VTT Technical Research Centre of Finland, Finland

13546 **I-80 Integrated Corridor Mobility Project**
Derek Pines, Senior Project Manager, Parsons, USA

12292 **Advanced Corridor Traffic Management Based on Infrastructure and Probe Data Fusion**
Toshihiko Oda, General Manager, Vehicle Information and Communication System Center, Japan

12878 **Video on Desktop**
Clay Packard, Software Integration Manager, Florida DOT, USA

13452 **Success Factors for Tendering Advanced Traffic Management Systems**
Sebastian Althen, Head of Integrated Solutions, Siemens AG, Germany

13517 **Operational Benefits of ATMS Deployment to Miami-Dade County**
K. K. Saxena, Senior Vice President, Kimley-Horn and Associates, Inc., USA

TS70 – Strategic Issues in ITS Development

Wednesday, September 10, 1:30 p.m. – 3:00 p.m. | **Cobo 353**

Session Track: ■ International Cooperation to Expand ITS

Moderator: Stan Caldwell, Associate Director Carnegie Mellon University, USA

12725 **Cooperation, A Prerequisite for Result**
Annica Roos, Senior Analyst ITS, Swedish Transport Administration, Sweden

12325 **Smarter Transportation Management through ITS**
Robert Edelstein, Vice President of ITS in North America, AECOM, USA

12594 **Trends in Transportation and Mobility**
Richard Harris, Solution Director, International Transportation and Government, Xerox Services, UK

12979 **Reliability is the Key to Sustainability in Transportation**
Cary Vick, Director of SmartMobility, Schneider Electric, USA

TS71 – Transit Signal Priority

Wednesday, September 10, 1:30 p.m. – 3:00 p.m. | **Cobo 354**

Session Track: ■ Public Transit

Moderator: Reinhard Pfiegl, AustriaTech

13265 **NYC Manhattan Transit Signal Priority System Evaluation**
Lihua Zhang, Transportation Engineer, TransCore, USA

13438 **Taichung City BRT Priority Signal System Design**
Chao-Fu Yeh, Senior Specialist, Transportation Bureau of Taichung City Government, Chinese-Taipei

13492 **Regional Transit Signal Priority Interoperability**
Daryl Taavola, Vice President, URS Corporation, USA

13567 **DSRC for Transit Vehicles in the Bay Area**
Paul Gray, CEO, Cohda Wireless, Australia

TS72 – Driver Simulation

Wednesday, September 10, 1:30 p.m. – 3:00 p.m. | **Cobo 355**

Session Track: ■ Driver Behavior and Support

Moderator: Ronnie Taib, Senior Research Engineer National ICT Australia, Australia

12666 **Extractioning of the Driving Features of the Elderly Drivers with Pre-dementia Drivers from Driving Simulator Test**
Chisa Takahashi, Aichi Prefectural University, Japan

13347 **Driver Behaviour Impacts of Cooperative In-vehicle Signage**
Satu Innamaa, Senior Scientist, VTT Technical Research Centre of Finland, Finland

13590 **A 3-D VR Model for Optimal Alignment Search System of Highway Design (OHPASS) using ASTER GDEM**
Motoya Yamasaki, Professor, Tokyo University of Agriculture, Japan

TS73 – Probe Data Applications and Evaluations

Wednesday, September 10, 1:30 p.m. – 3:00 p.m. | **Cobo 356**

Moderator: Alan Toppen, Associate Kimley-Horn and Associates, Inc., USA

13458 **Improving Operations on MDOT's Freeways Using Probe Vehicle Data**
Jason Firman, Michigan DOT, USA

12383 **Field Evaluations of an Adaptive Traffic Signal Control System Using Private Sector Probe Data**
Jia Hu, Research Assistant, University of Virginia, USA

12476 **Probe-Based Travel Time Decomposition Using Speed-time-distance Approximation Technique**
Sorawit Narupiti, Associate Professor, Chulalongkorn University, Thailand

13063 **Analysis of Emergency Vehicle Travel Time Variance Using GPS and GIS Data, Speaker 5**

13605 **Detecting Vehicle Stops from Smartphone Accelerometer Data**
Mecit Cetin, Associate Professor, Old Dominion University, USA

TS74 – Navigation System Travel Information

Wednesday, September 10, 1:30 p.m. – 3:00 p.m. | **Cobo 357**

Moderator: Alexander Froetscher, Head of Unit, ITS Development, AustriaTech, Austria

12572 **A Study of NMEA Format (GPS) Utilizing Short Range Data for Mobile Phone and Applied Map Deliver System**
Yuichi Takayanagi, Chief Engineer, Panasonic System Networks Co., Ltd., Japan

12585 **Microscopic Simulation Testbed Based on ITS Environments**
Taehyeong Kim, Senior Researcher, Korea Institute of Civil Engineering and Building Technology, Korea

13191 **Improvement of Global Map Matching Algorithm Based on Frechet Distance**
Kai Zhang, Associate Professor, Tsinghua University, China

13225 **Ideal Addressing for Automotive**
Kamron Clifford, Senior Product Line Manager, North American Map Content, TomTom, USA

13476 **Difference Between Estimated Travel Time By Car Navigation System and Real Travel Time By Probe Vehicle Test in Urban Area**
Heejin Jung, Researcher, Institute of Spatial Information, Korea

TS75 – Innovative Approaches for ATIS

Wednesday, September 10, 1:30 p.m. – 3:00 p.m. | **Cobo 358**

Moderator: Nobuhiro Uno, Associate Professor Graduate School of Management & Department of Urban Management Graduate School of Engineering, Kyoto University, Japan

13477 **Predicting Corridor Travel Time Reliability in Real-time Using Bluetooth Data**
Laurence Rilett, University of Nebraska-Lincoln, USA

12800 **An Automated System for City-scale Travel Time Calculation**
Vinod Bijlani, Solution Architect, IBM Intelligent Transportation, IBM, India

13075 **Utilizing the Systems Engineering Process in Support of Building a Construction Traveler Information for I-35 Widening in Central Texas**
Robert Brydia, Research Scientist, Texas A&M Transportation Institute, USA

13142 **A Hybrid Approach for Feature Selection and Freeway Travel Time Prediction Using Biogeography-based Optimization and Support Vector Regression**
Prateek Bansal, Graduate Research Assistant, The University of Texas at Austin, USA

TS76 – Innovations in Network Management

Wednesday, September 10, 1:30 p.m. – 3:00 p.m. | **Cobo 359**

Moderator: Frank Deasy, Sr. Project Manager Schneider Electric, USA

12735 **Improved Incident Management through Anomaly Detection in Historical Records**
Ronnie Taib, Senior Research Engineer, National ICT Australia, Australia

12901 **Real-time Traffic Queue Length Estimation at the Freeway Off-ramp Using Dual-zone Detectors**
Yao Cheng, Research Assistant, University of Maryland, USA

12969 **Alternative Performance Measures and Weighting for Quantifying Spatial and Temporal Congestion Using Probe Data**
Thomas Brennan Jr., Assistant Professor, The College of New Jersey, USA

13013 **A Study of Traffic Volume Fluctuation Considering Traffic Incidents in Hanshin Expressway Network**
Akito Higatani, Engineer, Hanshin Expressway Co., Ltd., Japan

TS77 – Sensing the Vehicle Environment

Wednesday, September 10, 3:30 p.m. – 5:00 p.m. | **Cobo 411 B**

Session Track: ■ Connected Vehicles & Cooperative Systems

Moderator: Jean-Marc Blosseville, Managing Director, IFSTTAR, France

11962 **A Novel Controller Design for Collision Avoidance Systems Using Sensor Fusion Method**
Ming Hung Li, Automotive Research & Testing Center, Chinese-Taipei

13366 **Optimization of Computer Vision Algorithms in Codesign Methodologies**
Marcos Nieto, Researcher, Vicomtech-IK4, Spain

13391 **Forward-Backward Object Tracking for Generation of Reference Scenarios Based on Laser Scan Data**
Martin Spencer, System Developer, Ibeo Automotive Systems GmbH, Germany

13598 **Stereo Vision Approach for Night Time Pedestrian Detection and Protection**
Mario Haddad, TK Holdings, Inc., USA

TS78 – Measuring Performance

Wednesday, September 10, 3:30 p.m. – 5:00 p.m. | **Cobo 412 A**

Moderator: Brian Gallagher, RF Hardware Staff Engineer DENSO International America, Inc., USA

12286 **Automated Traffic Signal Performance Measures — A Simplified Alternative Architecture**
Mark Taylor, Traffic Signal Operations Engineer, Utah DOT, USA

12965 **Comparison of Travel Times Displayed on Dynamic Message Signs with Bluetooth Traffic Monitoring (BTM) Travel Time Data in Pittsburgh, PA**
Stan Young, Director, Center for Advanced Transportation Technology, Works Division, University of Maryland, USA

13561 **Safety and Operational Performance Measures from Radar-based Vehicle Detection Systems**
Peter Rafferty, ITS Program Manager, UW-Madison, USA

13693 **Measuring Performance on Interrupted Flow Facilities with GPS Probe and Bluetooth Traffic Monitoring Data**
Rueben Juster, Faculty Research Assistant, Center for Advanced Transportation Technology, University of Maryland College Park

TS79 – Multi Object Collision Avoidance

Wednesday, September 10, 3:30 p.m. – 5:00 p.m. | **Cobo 412 B**

Session Track: ■ Connected Vehicles & Cooperative Systems

Moderator: Jeff Pierson, Senior Consultant Verizon Corp Rsrcs Group LLC, USA

12200 **Effect and Acceptance of V2I Cooperative Crossing Collision Prevention System at Non-Signalized Intersections**
Atsushi Furuta, Toyota Motor Corporation, Japan

13185 **Real-time Multiple Object Recognition for Collision Avoidance Using Wide Angle Stereo Camera**
Dzmitry Tsishkou, Senior research engineer, IMRA Europe S.A.S., France

13277 **Vehicle-to-Pedestrian Cooperative Safety Application**
Radovan Miucic, Research Engineer, Honda R&D, USA

12273 **Methodology for Designing Intersection Collision Avoidance Systems based on Multi-objective Criteria**
Kazutoshi Nobukawa, Postdoctoral Research Fellow, University of Michigan Transportation Research Institute, USA

13171 **Visual Recognition of Pedestrians with Deep Neural Networks**
Ikuro Sato, senior engineer, DENSO IT Laboratory, Inc., Japan

TS80 – Traffic Control

Wednesday, September 10, 3:30 p.m. – 5:00 p.m. | **Cobo 353**

Moderator: Bengt Hallström, Analyst and Senior Advisor, Swedish Transport Administration, Sweden

12399 **Yellow Light and Yellow Light Dilemma — An Independent Scrutinization from the View of Logic**
Aiken, Jiantong NI, AEIOsoft Mobility & Road Safety Laboratory, China

12419 **An Evaluation of Adaptive Traffic Control System in Istanbul, Turkey**
Nihat Kocyigit, R&D Engineer, ISBAK INC., Turkey

13472 **A Rationale for Incorporating ITS Applications' Effect into the HCM Signalized Facilities Analysis Procedure**
Jia Hu, Research Assistant, University of Virginia, USA

13495 **Real-time Traffic Control for Urban Environments: Expanding the Surtrac Testbed Network**
Gregory Barlow, Project Scientist, Carnegie Mellon University, USA

13509 **Variable Speed Limit Analysis on the Highway Istanbul**
Fatih GündoÄŸan, ISBAK Inc., Turkey

TS81 – Academic Issues on Public Transportation

Wednesday, September 10, 3:30 p.m. – 5:00 p.m. | **Cobo 354**

Session Track: ■ Public Transit

Moderator: Makoto Itami, Professor Tokyo University of Science, Japan

12888 **Selection Guidelines and Anomaly Detection of Performance Metrics in Transportation Systems**
Alvaro Gil, Senior Research Scientist, Xerox Innovation Group, USA

13196 **A Web Platform for User-Oriented Reliability Diagnosis in Bus Transit Services**
Benedetto Barabino, Technomobility, Italy

13216 **Using Archived Bus Health Data to Inform the Design of a Transit Signal Priority Project in New York City**
Shu-Yuan Wu, Graduate Center, City University of New York, USA

TS82 – Innovations in Traffic Data Collection and Analysis

Wednesday, September 10, 3:30 p.m. – 5:00 p.m. | **Cobo 355**

Session Track: ■ Big Data and Open Data

Moderator: Alan Clelland, Sr. Vice President Iteris, USA

12322 **Using Mobile Data for Weather Response Traffic Management**
Steven J. Cook, P.E., Engineer of Systems Operations and Maintenance, Michigan DOT, USA

12647 **Operation and Use of an Enhanced Real-Time Traffic Statistics Reporting System**
Charles Lattimer, Sr. Project Manager, Atkins, USA

13044 **Use of Traffic and Citizen Tweets for Incident Management for District DOT**
Rakesh Nune, Systems Engineer, District DOT, USA

13436 **A Study on Automated Data Collection and Deduction of Road Updates Using Public Tender Notices**
Satoru Nakajo, Principal Consultant, ITS Business Group, Mitsubishi Research Institute,Inc, Japan

13017 **Learning Mobility User Choice and Demand Models from Public Transport Fare Collection Data**
Frederic Roulland, Xerox Research Centre Europe, France

TS83 – Crash Data Analysis

Wednesday, September 10, 3:30 p.m. – 5:00 p.m. | **Cobo 356**

Moderator: Sami Mynttinen, Research Director, Finnish Transport Safety Agency, Finland

11948 **Pattern Matching Longitudinal Acceleration Time Series Data to Identify Crashes in Naturalistic Driving Data**
Robert Kluger, Graduate Research Assistant, University of Virginia, USA

12678 **Characteristics and Contributing Factors of Serious Single Passenger-vehicle Collisions in Beijing from 2009 to 2013**
Quan Yuan, Research Scholar, University of Washington, USA

12972 **A Model-Based Crash Prediction Technique for Chinese Roadway Segments**
Kaveh Gharieh, Ph.D. Student, Department of Civil and Environmental Engineering, Rutgers University, USA

TS84 – Security Challenges for ITS Systems

Wednesday, September 10, 3:30 p.m. – 5:00 p.m. | **Cobo 357**

Moderator: Dean Economou, Technology Strategist, NICTA, Australia

12097 **Guidelines for Vehicle Cybersecurity**
Hirofumi Onishi, Specialist, Alpine Electronics, USA

12270 **A Case Study on Information Security and Cyber Risks Implementation on an IP/MPLS Network**
Gabriel Ozique, Senior Fellow, Fluor Corporation, UK

12611 **An Efficient Prototype Implementation for Message Security in V2X Communication**
Kees Moerman, Senior Scientist, NXP Semiconductors, Netherlands

13502 **Over the Air Software Updates in a Secure Automotive Environment**
Dan Presidio, Director of Engineering, Movimento, Inc., USA

TS85 – New Developments in Probe and Floating Car Data Processing

Wednesday, September 10, 3:30 p.m. – 5:00 p.m. | **Cobo 358**

Moderator: Pete Costello, Director Business Development, Public Sector INRIX, USA

12670 **Real Time Visualization of Probe Information Using Web Based Technologies**
Hiroyuki Kumazawa, Professor, Osaka Sangyo University, Japan

12945 **Developing an Objective Measure of Urban Congestion across the Globe: the TomTom Traffic Index**
Nick Cohn, Head of Business Development, TomTom, Netherlands

13134 **Design of System Configuration for Floating Car Traffic Information Provision Service on Cloud Computing Environments**
Takuya Sue, FUJITSU LIMITED, Japan

13375 **A Proactive Route Search Method for an Efficient City Surveillance**
Osamu Masutani, Chief Engineer, Denso IT Laboratory, Inc., Japan

13665 **Transportation Database Development Using Floating Car Data**
Evan Burton, Database Engineer, National Renewable Energy Laboratory, USA

TS86 – Communication Platforms for Vehicles and Drivers

Wednesday, September 10, 3:30 p.m. – 5:00 p.m. | **Cobo 359**

Moderator: Francois Fischer, Senior Project Manager, ERTICO – ITS Europe, Belgium

12350 **Development, Piloting and Deployment of Co-operative Mobility Services of the Future — Experiences of the CoMoSeF Project**
Pekka Eloranta, Director EU Projects, Mobisoft Oy, Finland

12894 **Achieving Interoperability Between the Emerging C-ITS platform and Existing ITS Infrastructure in Australia**
David Green, Senior Engineer, ARRB Group, Australia

13011 **Study on Interference Signal Cancellation In-vehicle Communication Systems**
Ippei Sugae, AISIN SEIKI Co., Ltd., Japan

13446 **V2I After the V2V Mandate: Safety, Semi-Autonomous Vehicles, and the Case for Connected Vehicle Roadside Infrastructure**
Matthew Dorfman, Partner, D'Artagnan Consulting LLP, USA

13792 **Proposal of Feasible ASV Services Using V2V Communications Based on FOT in Hiroshima**
Sho Watanabe, The University of Tokyo, Japan

TS87 – Intelligent Work Zones

Wednesday, September 10, 3:30 p.m. – 5:00 p.m. | **Cobo 411 A**

Moderator: Shinya Omi, Senior Vice President ITS Japan, Japan

13600 **Analysis of the Impacts of Freeway Work Zones and Incidents Using Bluetooth Data**
Geza Pesti, Texas A&M Transportation Institute, USA

13248 **Intelligent Work Zone Data Collection and Evaluation**
Rashmi Brewer, Minnesota DOT

13503 **Data, Models, and Construction Permits**
Michael Marsico, Assistant Commissioner, New York City DOT, USA

13656 **Smart Work Zone — Fully Integrated Operations and Management**
Bini William, ITS Project Manager, Delcan, USA

TS88 – Collision Avoidance Systems

Thursday, September 11, 8:30 a.m. – 10:00 a.m. | **Cobo 411 B**

Session Track: ■ Connected Vehicles & Cooperative Systems

Moderator: Richard Bishop, Principal Bishop Consulting, USA

12463 **Definition of a Microscopic Traffic Simulations Driver Model for Inter-urban Intersections**
Jens Klimke, Research Assistant, Institut für Kraftfahrzeuge, RWTH Aachen University, Germany

13081 **Collision Avoidance System Based on Adaptable Speed**
Inseok Yang, Post-Doctoral Researcher, Center for IT & Automobile Convergence, Korea

13453 **Cooperative Collision Warning Application for High Speed Track Safety Management**
Álvaro Arrúe, Project Manager, IDIADA Automotive Technology, Spain

13690 **Evaluating the Performance of Intersection Collision Warning Systems Over Vehicular Networks**
Mohammad Horani, System Engineer, P3 Group, USA

TS89 – Developing an ITS Workforce

Thursday, September 11, 8:30 a.m. – 10:00 a.m. | **Cobo 412 A**

Session Track: ■ Economic Growth

Moderator: Jean-Philippe Méchin, Deputy Head of Intelligent Transport Group, CEREMA, France

12455 **Virtual ITS training — A Reality!**
Peter von Heidenstam, Transport Planner, Swedish Transport Administration, Sweden

12781 **Strengthening University ITS Teaching for the Workforce**
Mac Lister, ITS PCB Program Manager, ITS Joint Program Office, U.S. DOT, USA

12782 **Building the Future Transportation Workforce: ITS Skills and Competencies**
Elizabeth Greer, Lead ITS Analyst, Noblis, USA

13636 **Reinventing Traffic Operations Center Resource Management.**
Joanna Scott, Technical Director, TMC Operations, Atkins, USA

TS90 – Innovative Traffic Management Concepts and Systems

Thursday, September 11, 8:30 a.m. – 10:00 a.m. | **Cobo 412 B**

Session Track: ■ Traffic Management

Moderator: Takaaki Sugiura, Principal Researcher, ITS planning Group Mitsubishi Research Institute, Inc., Japan

12532 **Traffic Facilitation Field Operation Tests in Expressway Sag Sections Based on Adaptive Cruise Control**
Fumihiko Kanazawa, Head, ITS Division, National Institute for Land and Infrastructure Management, Japan

12937 **Intelligent Condition-based Mega-city Traffic Management System: A Novel Comprehensive 'Holographic' Information Approach**
Zhi Han, Chief Scientist, China Merchants Chongqing Communications Research & Design Institute Co., Ltd., China

13035 **Effective Traffic Management Practice Needed to Combat the Growing Traffic Congestion in Many Developing Countries**
Edmond Chang, President, CEO, EDCPC, Inc., USA

13378 **Evaluation Method for Analysis of Congestion Reduction Effect of VICS Information Service Using Traffic Simulation**
Toshihiko Oda, General Manager, Vehicle Information and Communication System Center, Japan

13564 **An Overview of the Analysis, Modeling, and Simulation (AMS) Testbed to Support Dynamic Mobility Applications (DMA) and Active Transportation and Demand Management (ATDM) Programs**
Balaji Yelchuru, Lead Associate, Booz Allen Hamilton, USA

TS91 – Video Detection & Processing

Thursday, September 11, 8:30 a.m. – 10:00 a.m. | **Cobo 353**

Moderator: Adam Lyons, Director of Marketing Iteris, Inc, USA

12158 **Registration of Aerial Images Using Pseudo-Orthogonal Space**
Koji Iigura, Lecturer, Shizuoka Institute of Science and Technology, Japan

12233 **VectorSense™ Technology for Enhanced Traffic Information, Safety and Corridor Management**
Randy Hanson, Executive Vice President and COO, International Road Dynamics Inc., Canada

12601 **Enhanced Image Processing — Why the Tolling Industry Should Apply a Holistic Approach to Image Handling**
Frank Kjelsli, Vice President Managed Services, Q-Free ASA, Norway

13203 **Understanding the Potential Benefits of Video Analytics to Support Traffic Data Collection, Incident Detection, and Animal Detection**
Mike Barnet, Ministry of Transportation of Ontario, Canada

TS92 – Regional and Statewide Integrated ITS Deployments

Thursday, September 11, 8:30 a.m. – 10:00 a.m. | **Cobo 354**

Session Track: ■ International Cooperation to Expand ITS

Moderator: Reinhard Pfiegl, CEO, A3PS, Austria

12517 **A New Central System with Disaster Recovery Functions — For Business Continuity of Road Traffic Control**
Atsushi Edahiro, Assistant, West Nippon Expressway Company Limited, Japan

13483 **NC Operations Business Maturity: Preparing for a New ATMS**
Jennifer Portanova, State Traffic Operations Engineer, North Carolina DOT, USA

12719 **Multi-Model Transportation Operations, SFMTA, a Project Update**
Clifford Conklin, ITS Project Manager, HNTB Corp, USA

13706 **Operating a Transportation Management Center**
Matthew Lee, Michigan DOT, USA

TS93 – Data Management Strategies

Thursday, September 11, 8:30 a.m. – 10:00 a.m. | **Cobo 355**

Session Track: ■ Big Data and Open Data

Moderator: Fang Chen, Research Team Leader National ICT Australia, Australia

12135 **Generating Summaries from Field Operational Test Data**
Sami Koskinen, VTT Technical Research Centre of Finland, Finland

12679 **Design and Implementation of Location-Aware Contents Distribution Platform Utilizing Precise Probe Vehicle Data**
Yasuhito Tsukahara, Student, Keio University, Japan

13182 **A Platform for Sharing Data from Field Operational Tests**
Yvonne Barnard, ERTICO - ITS Europe, Belgium

13614 **Analyzing Data from the Safety Pilot Infrastructure: Influencing Future Deployments**
Lee Mixon, President, Mixon Hill, Inc., USA

TS94 – Integrated Corridor Operations

Thursday, September 11, 8:30 a.m. – 10:00 a.m. | **Cobo 356**

Moderator: Amanda Good, ITS Planner Kimley-Horn, USA

12470 **Amalgamating UDOT ITS Databases to Evaluate Corridor Strategies and Projects**
Grant Farnsworth, HNTB, USA

13497 **Zoo Interchange: Integrated Corridors as a Construction Management Tool**
Jason Stribiak, ITS Planner/Project Manager, HNTB Corporation, USA

13651 **Evaluating Integrated Corridor Management Response Plans in the San Diego Region**
Michael Washkowiak, Project Manager, Kimley-Horn and Associates, Inc., USA

13671 **Deploying a "Smart Corridor" Today, for Tomorrow's Needs: ATM and Connected Vehicles**
Darryl Dawson, ITS Deployment Engineer, Illinois State Toll Highway Authority, USA

13779 **Connected Mobility Services in an Integrated City**
Jaap Vreeswijk, Product Manager Research, Imtech Traffic & Infra, Netherlands

TS95 – Traveler Information Challenges

Thursday, September 11, 8:30 a.m. – 10:00 a.m. | **Cobo 357**

Moderator: Stéphanie Chaufton, Project Manager, ERTICO - ITS Europe, Belgium

12416 **Evaluation of a Driving Route Display System for Heavy Vehicles**
Takahiro Tsukiji, Researcher, National Institute for Land and Infrastructure Management, MLIT, Japan

13377 **The Digital Road Authority: Creating Synergy Between the Information and Intentions of Public Parties, Private Parties and Traveler**
Daphne van Leeuwen, Trinite, Netherlands

13718 **A Traveler Information Platform for Modern Smart Cities**
Saurav Bhattacharyya, CEO, Quantum Inventions, Singapore

12084 **Ottawa Nav — A Context Awareness Traveler Information Platform**
Philippe Landry, Manager, Traffic Services, City of Ottawa, Canada

13009 **Traffic Data Quality Assurance Program for a Consistent and Reliable Accurate Data Collection and Information Dissemination**
James Zhou, Senior Engineer, Intelligent Transport System Development, Land Transport Authority of Singapore, Singapore

TS96 – Driver Behavior and Cognition of Signage and Markings

Thursday, September 11, 8:30 a.m. – 10:00 a.m. | **Cobo 358**

Session Track: ■ Driver Behavior and Support

Moderator: Ronnie Taib, Senior Research Engineer National ICT Australia, Australia

12577 **A Development of Road Surface Temperature Prediction System by Using Vehicle Ambient Temperature of Can Data**
Youngkyun Kang, Chief Research Engineer, Hyundai Engineering & Construction, Korea

13087 **Investigation of Graphic Symbols Displayed on Expressway Information Board**
Hideki Takahashi, Senior Expert, Central Nippon Expressway Company Limited, Japan

13330 **Large-Scale Image Registration for Road Markings Deterioration Management from in-Vehicle Camera Images and Logged Can Data**
Sakiko Nishino, Aichi Prefectural University, Japan

13386 **Evaluation of Effects of Traffic Sign and Signal by Using Driving**
Toshiyuki Sugimachi, Project researcher, The University of Tokyo, Japan

13485 **Validation Study on Evaluation of Traffic Safety Installations Using fNIRS**
Kouji Yamamoto, Director, Central Nippon Expressway Co., Ltd., Japan

TS97 – New Techniques to Analyze, Predict, and Mitigate Traffic Safety

Thursday, September 11, 8:30 a.m. – 10:00 a.m. | **Cobo 359**

Session Track: ■ Traffic Safety

Moderator: Farhad Pooran, Vice President of Engineering Schneider Electric, USA

12467 **P4S China Architecture**
Mohsen A. Jafari, Professor, Center for Advanced Infrastructure and Transportation, USA

12581 **Control Techniques for Traffic Accident Deterrence - Effects of Traffic Signal Control for Speeding Prevention**
Nobuyuki Kimura, Traffic Facilities and Control Division, Tokyo Metropolitan Police Department, Japan

12851 **Practical Use of the Real Time Traffic Hazard Prediction on Hanshin Expressway**
Takashi Kodama, Hanshin Expressway Company Limited, Japan

13218 **Improving Traffic Safety with ITS: Results from a Trial Installation**
Raza Muhammed, Project Manager, The Danish Road Directorate, Denmark

TS98 – Implications and Assessment of Automated Driving

Thursday, September 11, 8:30 a.m. – 10:00 a.m. | **Cobo 411 A**

Session Track: ■ Automated Transportation

Moderator: Maxime Flament, Head of Sector SafeMobility, ERTICO - ITS Europe, Belgium

12443 **Multi-class Driverless Vehicle Cooperation for Mobility-on-Demand**
Scott Pendleton, PhD Candidate, National University of Singapore, Singapore

12649 **Automated Vehicle Technology Survey of Industry Stakeholders**
Eric Paul Dennis, Transportation Systems Analyst, Center for Automotive Research, USA

12864 **The Implications of Fully Automated Driving for the Automotive Industry**
Ian Riches, Director - Global Automotive Practice, Strategy Analytics, Ltd., UK

12886 **Autonomous Vehicle Technology: How to Best Realize ITS Social Benefits**
James Anderson, Senior Behavioral Scientist, RAND Corporation, USA

13258 **Technical Challenges for Fully Automated Driving Systems**
Steven Shladover, Research Engineer/Program Manager, California PATH, ITS Berkeley, University of California, USA

13734 **Towards Holistic Assessment of Automated Driving**
Merja Penttinen, Senior Scientist, Finnish Transport Agency, Finland

TS99 – Advanced Traffic Management 2

Thursday, September 11, 10:30 a.m. – 12:00 p.m. | **Cobo 411 A**

Session Track: ■ Traffic Management

Moderator: Shunsuke Kamijo, Associate Professor Institute of Industrial Science, The University of Tokyo, Japan

13512 **Unified Evaluation Method for Traffic Control Logarithms**
Klaas Rozema, CTO, Imtech Traffic & Infra, Netherlands

12502 **Analysis of Areas of Vegetation Using Satellite Images and Three-Dimensional Map**
Tomoya Hasegawa, Shizuoka University, Japan

12652 **Testing Non-Intrusive Sensors to Replace Loop Systems: A Case Study from the UK's Highways Agency**
Bryan Jarrett, Wavetronix, USA

12740 **Proposal of a Cooperative Infrastructure-Vehicle System for Traffic Signal Control**
Noriyuki Tsukada, Nissan Motor Co., Ltd., Japan

13026 **Strategy management toward smart city**
Marco Bottero, Researcher and Project Manager, SWARCO, Italy

TS100 – Incident Management in Large Metropolitan Areas

Thursday, September 11, 10:30 a.m. – 12:00 p.m. | **Cobo 411 B**

Moderator: Tien-Pen Hsu, Associate Professor National Taiwan University, Chinese-Taipei

13657 **Event-Driven Incident Management in the District of Columbia with the Capital Traffic Operations Platform**
Xianding Tao, Senior ITS Engineer, District DOT, USA

12074 **Managing Metro Detroit Traffic Incidents Through Partnerships**
Richard Beaubien, Managing Director, Beaubien Engineering, USA

13256 **San Mateo County Smart Corridor Project — Providing Alternate Routes During Incidents**
Scott Carlson, Vice President – Western Regional Manager, Iteris, Inc., USA

13601 **Florida DOT District Six Evolution of Incident Management Program**
Joseph Snyder, TMC Manager, AECOM, USA

13650 **The Use of ITS in Incident Management for the Illinois State Toll Highway Authority**
Jeff Hochmuth, Senior ITS Engineer, CDM Smith, USA

13696 **Use of ITS in New Integrated Center for Urban Mobility Sao Paulo**
Olímpio Mendes de Barros, Engineer, CET, Brazil

TS101 – Smart Parking 2

Thursday, September 11, 10:30 a.m. – 12:00 p.m. | **Cobo 412 A**

Moderator: Cole Dagerhardt, Engineer Kimley-Horn and Associates, Inc., USA

12423 **Smart Parking Solution Assessment for Reduce Urban Traffic Jams**
Eric Klein, Head traffic metrology team, Cerema, France

13259 **LA Express Park™ - Curbing Downtown Congestion Through Intelligent Parking Management**
Peer Ghent, Senior Management Analyst, Los Angeles DOT, USA

13306 **Vehicle Coordinates Sensing for C-AVP Using Surveillance Cameras**
Toru Saito, Chief Engineer, Honda R&D Co., Ltd., Automobile R&D Center, Japan

13738 **Parking Developing ITS Own Space**
Robert De Beukelaer, Solution Delivery Director EMEA, Xerox Services, Netherlands

TS102 – Innovative Uses of Probe Data

Thursday, September 11, 10:30 a.m. – 12:00 p.m. | **Cobo 412 B**

Moderator: Yvonne Barnard, Project Manager, ERTICO – ITS Europe, Belgium

12530 **Detecting Abnormal Traffic Using Traffic Data**
Shotaro Ohira, Assistant Manager, Sumitomo Electric System Solutions Co., Ltd., Japan

12598 **Estimating Time-Varying O/D Information on the Base of Detector Pulse Data and FCD Measurements**
Thomas Riedel, Managing Director, Adaptive Traffic Control AG, Switzerland

13341 **Estimation of Real-time Origin-destination Flow Using Mobile Sensor Network**
Joyoung Lee, Assistant Professor, New Jersey Institute of Technology, USA

13368 **Application of Probe Data in Estimating Volume, Average Travel Time and Delay in an Intersection**
Sandy Mae Gaspay, Ph.D. Student, University of Tokyo, Japan

TS103 – Reduction of Fuel Consumption

Thursday, September 11, 10:30 a.m. – 12:00 p.m. | **Cobo 353**

Moderator: Hiroyuki Kumazawa, Professor Osaka Sangyo University, Japan

12496 **Traffic Jam Reduction with Cooperative Cruise Control**
Tomoyuki Doi, Assistant Manager, Toyota Motor Corporation, Japan

13001 **Development of an Algorithm for the Dynamic Curve Speed Warning System**
Ji-Eun Choi, Pukyong National University, Korea

13615 **Comparative Evaluation of Fuel Consumption Estimation Models**
Byungkyu (Brian) Park, Associate Professor, University of Virginia, USA

13714 **Context-sensitive Eco-driving Scores**
Matthew Barth, Professor, University of California, USA

13759 **Fuel Economy Improvement Potential of a Heavy Duty Truck using V2x Communication**
Rajeev Verma, Eaton Corp, USA

TS104 – Collision Warning Systems

Thursday, September 11, 10:30 a.m. – 12:00 p.m. | **Cobo 354**

Session Track: ■ Connected Vehicles & Cooperative Systems

Moderator: Faroog Ibrahim, Executive Director Savari Networks, USA

12861 **Speed Management at Bends Using LDM**
Cigdem Cavdaroglu, Analysis and Design Leader, KocSistem Bilgi ve Iletisim Hizmetleri, Turkey

12835 **Vehicle Collision Warning System Based on Fuzzy Inference**
Yong-Yao Yang, Chief Scientist, SUPCON Information Technology Co. Ltd., China

13008 **Methodology for Evaluating Effectiveness of In-vehicle Pedestrian Warning Systems Using Driving Simulator**
Cheol Oh, Associate Professor, Hanyang University at Ansan, Korea

13114 **FCW Algorithm Adaptive to Driver Behavior Change: Conceptual Framework and Experimental Validation**
Jianqiang Wang, Professor, Tsinghua University, China

13274 **The Effects of Lead Time of Verbal Collision Warning Messages on Driving Performance**
Changxu Wu, University at Buffalo, USA

TS105 – New Trends in Detection

Thursday, September 11, 10:30 a.m. – 12:00 p.m. | **Cobo 355**

Session Track: ■ Automated Transportation

Moderator: Alexander Froetscher, Head of Unit, ITS Development, AustriaTech, Austria

12282 **Length-Based Vehicle Reidentification for Travel Time Measurement**
Rob Hranac, Vice President, Iteris, Inc., USA

12330 **New Detection Technology Eliminates Dilemma Zones**
Nader Ayoub, Associate Vice President, Roadway Sensors, Iteris, Inc., USA

13292 **Millimeter-wave Radar in 65-nm CMOS Technology**
Kiyokazu Sugai, FUJITSU TEN LIMITED, Japan

13724 **Is Ramp Metering Coming to NC?**
Alf Badgett, Senior ITS Engineer, ITS Division, ATKINS, USA

13780 **The Accuracy Levels of Vehicle Detectors Commonly Used in Korea Based on the Results of Quality Certification Test**
Sang Hyup Lee, Research Fellow, Korea Institute of Construction Technology, Korea

TS106 – Developments in ITS Based Safety Systems

Thursday, September 11, 10:30 a.m. – 12:00 p.m. | **Cobo 356**

Session Track: ■ Traffic Safety

Moderator: Koji Oguri, Director / Professor Aichi Prefectural University, Japan

12100 **Older Driver Crash Trend Evaluation Relating to Societal Change and Intelligent Transportation Systems**
Seri Park, Assistant Professor, Villanova University, USA

12160 **A Study to Consider the Most Appropriate Alert Point to Assist Pedestrians Crossing at Intersection**
Hidekatsu Hamaoka, Akita University, Japan

12316 **Safety Assessment and Spatial Exploration of Automated Red-light Running Enforcement Cameras**
Mohamed Ahmed, Assistant Professor, University of Wyoming, USA

12803 **A GPS-enabled Smart Phone App with Simplified Diagnosis Functions of Driving Safety and Warning Information Provision**
Junyi Zhang, Professor, Graduate School for International Development and Cooperation, Hiroshima University, Japan

13700 **Increased Persistence of Wi-Fi Direct Adhoc Networks for Smartphone-based Collision Avoidance**
Clark Hochgraf, Associate Professor, Rochester Institute of Technology, USA

TS107 – Vehicle and Driver Models and Algorithms

Thursday, September 11, 10:30 a.m. – 12:00 p.m. | **Cobo 357**

Moderator: Ray Resendes, Executive Director, NCR VTTI, USA

12510 **Development of Control Algorithm for Safety Systems Using Fusion of V2X and Environmental Sensors**
Manbok Park, Senior Researcher, MANDO Corporation, Korea

12654 **Virtual Driving Scenarios from Real-world Test Drive Data for Automated Evaluation of ADAS Applications**
Martijn Tideman, TASS International, Netherlands

13130 **Discriminating Relationship of Different Driver States and Driving Based on Gaussian Mixture Model**
Yuto Hayata, Student, Aichi Prefectural University, Japan

13429 **Retrofitting of Adas in Personal Vehicles**
Erik Andersson, Traffic planner, SWECO TransportSystem AB, Sweden

TS108 – Advanced Corridor Management 2

Thursday, September 11, 10:30 a.m. – 12:00 p.m. | **Cobo 358**

Moderator: Rasmus Lindholm, Partnership Services and Communications Director, ERTICO – ITS Europe, Belgium

13107 **Application of Real-time Transit Data for Integrated Corridor Management**
Kevin Miller, Sr. Program Manager, Schneider Electric, USA

12960 **Smart Mobility for Arterial ITS**
Farhad Pooran, Vice President of Engineering, Schneider Electric, USA

13088 **Planning an Active Arterial Management Program**
Melissa Ackert, ATMS/TSM&O Program Engineer, Florida DOT, USA

13325 **Traffic Performance of Integrated Arterial and Motorway Traffic Management Policies Using SCATS**
Steven Shaw, Traffic Systems Application Manager, Roads and Maritime Services, Australia

TS109 – User Behavior

Thursday, September 11, 10:30 a.m. – 12:00 p.m. | **Cobo 359**

Session Track: ■ Driver Behavior and Support

Moderator: Takashi Bannai, Chief Engineer Honda Motor Co., Ltd., Japan

12031 **Characterizing Cell Phone Use at Signalized Intersections**
Thomas Brennan Jr., Assistant Professor, The College of New Jersey, USA

12653 **The Future of Driver Assistance: Driver Mental State Monitoring**
Ronnie Taib, Senior Research Engineer, National ICT Australia, Australia

12655 **Development of a Risk Assessment Tool Based on Driver Behavior and Environment**
Farbod Farzan, Ph.D. Candidate, Rutgers University, USA

12843 **Driver Visual Distraction Analysis Using Percent Area of Interest Method**
Asako Yumoto, Fujitsu Laboratories Ltd., Japan

12908 **Survey of User Attitudes to Traffic Smoother Services**
Koichi Iwatake, Guest Research Engineer, ITS Division, National Institute Land, Infrastructure and Management, Japan

13764 **ViFa 65plus — Visual Driver Assistance Systems for Elderly Drivers**
Arne Glaser, Chemnitz University of Technology, Germany

TS110 – ITS Developments in Evolving Markets

Thursday, September 11, 1:30 p.m. – 3:00 p.m. | **Cobo 358**

Session Track: ■ Economic Growth

Moderator: Patrick Malléjacq, Director of European and International Affairs, IFSTTAR, France

13275 **National ITS Architecture for Mexico V.2**
Miguel Lopez, General Directorade, TEKIA INGENIEROS DE MÉXICO, SA de CV., Mexico

12300 **Sustainable Strategy for Cost-effective ITS Deployment in Nigeria: Lessons from the Korea City-by-city Model**
Joshua Adetunji Odeleye, Assistant Director, Nigerian Institute of Transport Technology, Nigeria

12776 **Providing Big Picture of Evolving ITS Market in Iran, Using Pest Analysis**
Hamid Mahyad, Iran Telecommunications Research Center, Iran

13575 **Accelerating the Adoption of Intelligent Transport Systems in Low-income Countries**
Marty Makinen, Principal and Managing Director, Results for Development Institute, USA

13701 **Potentials for Intelligent Transportation Systems Deployment in Developing Countries — A Case Study**
Sakib Mahmud Khan, Graduate Research Assistant, Clemson University, USA

TS111 – Future Directions in Automated Driving

Thursday, September 11, 1:30 p.m. – 3:00 p.m. | **Cobo 359**

Session Track: ■ Automated Transportation

Moderator: Glenn Geers, Technology Director NICTA, Australia

12134 **The Interrelationships Between Connected and Automated Vehicle Technologies**
Michael McGurrin, Senior Fellow, Transportation Systems, Noblis, USA

12917 **Industry-government Joint Research of Preparation Method of Road Structure Data for Automated Driving**
Atsushi Kimura, National Institute for Land and Infrastructure Management Ministry of Land, Japan

13683 **Implications of Connected Automation**
Sudharson Sundararajan, Senior Consultant, Booz Allen Hamilton, USA

TS112 – Challenges in Big Data Management

Thursday, September 11, 1:30 p.m. – 3:00 p.m. | **Cobo 411 A**

Session Track: ■ Big Data and Open Data

Moderator: Ken Philmus, Senior Vice President Transportation, Central & Local Government Xerox State & Local Solutions, USA

12478 **Crafting Measures from the National Performance Management Research Data Set**
Peter Rafferty, ITS Program Manager, UW-Madison, USA

13192 **Lead, Data Management Lab and Co-Director, I2R-LTA Joint Lab, Institute for Infocomm Research, Singapore**
Wee Siong Ng, ead, Data Management Lab and Co-Director, I2R-LTA Joint Lab, Institute for Infocomm Research, Singapore

13585 **Real-time Big Data for Improved Traffic Management and Congestion Reduction**
Ronnie Beggs, Product Management, SQLstream, USA

13607 **Development and Implementation of a Real-time Big Data Management Architecture for Effective Adaptive Traffic Signal Control**
Wuping Xin, Chief Technology Officer, KLD Engineering, P.C., USA

TS113 – Tools to Improve Transit Services

Thursday, September 11, 1:30 p.m. – 3:00 p.m. | **Cobo 411 B**

Session Track: ■ Public Transit

Moderator: Francois Fischer, Senior Project Manager, ERTICO – ITS Europe, Belgium

13627 **Implementation of Open Source TSP**
David Phillips, Senior Transportation Planner, TranSystems, USA

13320 **Augmenting the Transit Operations Management Tools with Emerging Technologies**
Santosh Mishra, Senior Transportation Planner, TranSystems Corporation, USA

13324 **Advances for An Advanced Public Transport System "APTS" At West Central Metropolitan Area Colombia**
Natalia Giraldo, Development Coordinator, INTEGRA S.A., Colombia

13447 **Transit Light Rail Incident Response Before and After ICM Deployment: Strategies and Constraints**
Lee Biernbaum, Economist, Volpe Center, U.S. DOT, USA

12989 **Real-Time Bus Scheduling via Proactive Bus Demand Estimation**
Yangrok Jeong, Researcher, Pukyong National University, Korea

TS114 – Regional Examples of ITS Deployments

Thursday, September 11, 1:30 p.m. – 3:00 p.m. | **Cobo 412 A**

Moderator: Takaaki Segi, Director ITS Japan, Japan

13031 **Traffic/Travel Information Integration Service Through User-Based, Open-Architecture, Public-Domain, Cloud-Computing**
Edmond Chang, President, CEO, EDCPC, Inc., USA

13424 **MDOT DUAP Project — The Agency of the Future**
Collin Castle, Connected Vehicle Technical Manager, Michigan DOT, USA

13467 **Strategic Assessment on Emerging Innovative Transportation Technologies for Future Transportation in Texas**
C. Michael Walton, Professor, University of Texas at Austin, USA

13501 **Mainstreaming ITS in the IT Environment: Illinois Tollway Traffic and Incident Management System (TIMS)**
John Benda, General Manager of Maintenance and Traffic, Illinois State Toll Highway Authority, USA

13668 **Intelligence in Urban Mobility for World Cup 2014: A Case Study of the Sao Paulo Arena**
Alessandro Santiago Santos, Research, Institute for Technological Research (IPT), Brazil

TS115 – Development of Cooperative ITS Architecture

Thursday, September 11, 1:30 p.m. – 3:00 p.m. | **Cobo 353**

Session Track: ■ International Cooperation to Expand ITS

Moderator: Christopher Francis, Senior Transportation Specialist Florida DOT, USA

13520 **Best Practices in Implementing ITS Architectures**
John Baker, Technical Staff, ConSysTec, USA

12741 **Advancing the Cooperative ITS Architecture: Data Collection and Business Projection**
Federico García-Linares, OHL Concesiones, Spain

12745 **CAR2X Systems Network Architecture and Possible Application**
Kurt Eckert, Project Manager, Robert Bosch GmbH, Germany

13707 **Connected Vehicle Reference Implementation Architecture: Common Language and Application Tools**
Clifford Heise, Vice President, Federal and Research, Iteris, Inc., USA

13711 **Evolving the National ITS Architecture to Support Connected Vehicle**
Clifford Heise, Vice President, Federal and Research, Iteris, Inc., USA

TS116 – Standardization

Thursday, September 11, 1:30 p.m. – 3:00 p.m. | **Cobo 354**

Session Track: ■ ITS Rules and Standards

Moderator: Yu Yuan, Board Member, IEEE Standards Association Standards Board, China

12326 **Australian Cooperative ITS Platform — Prepared to Adopt and Adapt**
Freek Faber, Engineer Network Operations Congestion, ARRB GROUP, Australia

12438 **Standardization of Variable Message Signs in Korea**
Weoneui Kang, Senior Researcher Fellow, Korea Institute of Civil Engineering and Building Technology, Korea

13178 **Advanced Transportation Management Systems Based on International Standards**
Knut Evensen, Chief Technologist, Q-Free ASA, Norway

13404 **Converge — Future IRS-infrastructures as Open Service Networks**
Horst Wieker, Professor for Communication Technologies, htw saar, Germany

TS117 – Innovative Modeling Techniques

Thursday, September 11, 1:30 p.m. – 3:00 p.m. | **Cobo 355**

Moderator: Chen Cai, Researcher NICTA, Australia

13587 **Approach for Freeway Work Zone Capacity Estimation Incorporating Probe Vehicle Data**
Joyoung Lee, Assistant Professor, New Jersey Institute of Technology, USA

12024 **Traffic Signal Control Based on Particle Swarm Optimization**
Kuen-Rong Lo, Managing Director of IOT Laboratory, Telecommunication Laboratories, Chunghwa Telecom Co., Ltd., Chinese-Taipei

12696 **When Gap Acceptance Does Not Apply — A New Approach**
Erlend Aakre, NTNU Traffic Engineering Research Centre, Norway

12850 **A Practical Simple Technique to Detect Abnormal Traffic Flow in Freeway**
Hamid Torfehnejad, ITS Group Manager, Road Maintenance and Transportation Organization, Iran

TS118 – Radio Communications for ITS

Thursday, September 11, 1:30 p.m. – 3:00 p.m. | **Cobo 356**

Moderator: Roy Jose, Principal Architect Savari Networks, USA

12050 **DSRC Performance Assessment under Critical Radio Environment**
Fumio Watanabe, Alps North America Inc., USA

12528 **An Examination of the Applicability of a Film Antenna for 700 MHz Band ITS**
Atsuo Iwase, Panasonic Corporation, Japan

12836 **A Novel Traffic Micro Radio Station Implemented via DSRC Network Technology**
Yong-Yao Yang, Chief Scientist, SUPCON Information Technology Co. Ltd., China

13488 **Improved Resource Utilization and Transmission Quality for V2X Communication**
R. Tugrul Güner, V2X Program Manager, Kapsch TrafficCom AG, Austria

13688 **Wireless Vehicular Safety Systems: DSRC Radio In-Vehicle Evaluator (Drive)**
Brian Gallagher, RF Hardware Staff Engineer, DENSO International America, Inc., USA

TS119 – Autonomous Driving Systems

Thursday, September 11, 1:30 p.m. – 3:00 p.m. | **Cobo 357**

Session Track: ■ Automated Transportation

Moderator: Vincent Blervaque, Director, ITS got Solutions, Belgium

11885 **The Future of Mobility is Now**
Guy Fraker, Chief Knowledge Officer, AutonomouStuff LLC., USA

12104 **The Effect of Autonomous Speed Control System: An Investigation on Minimum Headway and Driver's Acceptance**
Changxu Wu, Associate Professor, University at Buffalo, USA

12475 **From Driving Assistance Systems to Automated Driving: A Robust Approach based on the Subsumption Architecture**
Luisa Andreone, Program Manager, Centro Ricerche FIAT, Italy

12722 **Intersection Management of Autonomous Vehicles Using an Agent-based Passenger Priority Framework**
Hesham Rakha, Professor of Civil and Environmental Engineering and Director Centre for Sustainable Mobility, Virginia Tech, USA

13654 **Vehicle Automation and the Duty to Act**
Noah Goodall, Research Scientist, Virginia DOT, USA

Interactive Sessions

IS01 – Interactive 1

Monday, September 8, 10:30 a.m. – 12:00 p.m. | **Cobo, Wayne and Oakland Halls**

14383 **A Dynamic Routing Strategy in a Cooperative Vehicle Environment**
Mizanur Rahman, Student Essay Winner, Glenn Department of Civil Engineering, Clemson University, USA

12133 **Information About CO^2 Emissions from Transport Services — The French Experience**
Eric Louette, Officer, Ministry of Ecology, Sustainable Development and Energy, France

12755 **Operational Benefits of InSync Adaptive Signal Control for Nonrecurring Traffic Conditions**
Aleksandar Stevanovic, Assistant Professor, Florida Atlantic University, USA

13034 **From Intelligent Transport System (ITS) Integration to Effective Smart City (SC) Implementation**
Edmond Chang, President, CEO, EDCPC, Inc., USA

13206 **A Study of Optimal DSRC Antenna for Multi-lane Free Flow**
Kenta Kakizaki, Department of Electrical Engineering and Electronics, College of Science and Engineering, Aoyama Gakuin University, Japan

IS02 – Interactive 2

Monday, September 8, 3:00 p.m. – 4:30 p.m. | **Cobo, Wayne and Oakland Halls**

14384 **Sustaining V2V with Software Defined Radio & Modular Computing Architecture**
Billy Kihei, Student Essay Winner, Georgia Institute of Technology, USA

13300 **Predicting Taxi Pickups Using Spatial Partitioning**
Wei Wu, Scientist, Institute for Infocomm Research, Singapore

13437 **Multi-Level Evaluation of the Benefits of Intelligent Transportation Systems**
Mohammed Hadi, Florida International University, USA

13506 **Scaling Up Penetration Rates in Field Tests by Emulating V2X Communication**
Bart D. Netten, Senior Scientific Researcher, TNO, Netherlands

IS03 – Interactive 3

Tuesday, September 9, 10:30 a.m. – 12:00 p.m. | **Cobo, Wayne and Oakland Halls**

14385 **Attitudes and the American Way: Barriers to Fully Automated Vehicles**
Lacy Kaare, Student Essay Winner, Michigan Technological University, USA

13556 **Cost-Effective Monitoring and Evaluation of the M2M Pilot Project**
Jill Hayden, Professional Head of ITS Strategic Advice, Atkins, UK

13642 **Infrastructure-based Sensors Augmenting Efficient Autonomous Vehicle Operations**
Myungsoo Jun, National Renewable Energy Laboratory, USA

12849 **Navigation System Using Zigbee in Shopping Mall**
Yuya Takahashi, Student, Tokyo University of Science, Japan

12905 **Modeling and Characteristics of the Fundamental Diagram for Lagrangian-Space Kinematic Wave Model**
Han Yang, Ph.D., Key Laboratory of Road Traffic Engineering of the Ministry of Education, Tongji University, China

IS04 – Interactive 4

Tuesday, September 9, 1:00 p.m. – 2:30 p.m. | **Cobo, Wayne and Oakland Halls**

13064 **State-of-the-Art Yard Management**
Ian Harriman, ITS Consultant, BLIC North America, Inc., USA

13089 **Development of Trajectory Analysis Function By Analyzing Location Information**
Tatsuya Terada, Fujitsu Limited, Japan

13195 **City-wide Road Distress Monitoring with Smartphones**
Christoph Mertz, Principle Project Scientist, Carnegie Mellon University, USA

13401 **Wireless Zigbee Sensor Applied to Temperature Measurement**
Marcelo Bender Perotoni, professor, UFABC, British Virgin Islands

IS05 – Interactive 5

Wednesday, September 10, 10:30 a.m. – 12:00 p.m.	Cobo, Wayne and Oakland Halls

13793 **Dangerous Goods Compliance on Australian Roads**
Soren Tellegen, Kapsch TrafficCom Australia Pty Ltd., Australia

13316 **The Smooth Operation At ETC Lane in the Event of Large-scale System Failure**
Takeshi Wada, Maintenance, Construction and Management, Highway Toll Systems Co., Ltd., Japan

13553 **A Simulation Test-bed for Evaluating Active Traffic Network Management Systems**
Hossein Hashemi, Graduate Research Assistant, Southern Methodist University, USA

12623 **Cloud Impacts on Pavement Temperature in Energy Balance Models**
Curtis Walker, Graduate Research Assistant, University of Nebraska-Lincoln, USA

12798 **Adaptive Streaming Systems for Vehicles: Available Technologies**
Jianping Chen, Scientist, Institute for Infocomm Research, Singapore

13519 **Loss Aversion, Goal Framing and the Design of An Information Strategy for Roadside DRIPs**
Klaas Rozema, CTO, Imtech Traffic & Infra, Netherlands

IS06 – Innovative ITS Based Safety Systems Interactive Session

Wednesday, September 10, 1:30 p.m. – 3:00 p.m.	Cobo, Wayne and Oakland Halls

12845 **Field Trials of a WAVE/DSRC-based Weigh-In-Motion (WIM) System in Taiwan**
Chia-Chang Hsu, Engineer, Industrial Technology Research Institute, Chinese-Taipei

12092 **Effect Evaluation of Vehicle-Infrastructure Cooperative Right Turn Collision Prevention System.**
Nakamura Shunsuke, UTMS Society of Japan, Japan

12646 **Wrong-Way Driving Detection and Prevention System: A Pilot Deployment**
Charles Lattimer, Sr. Project Manager, Atkins, USA

IS07 – Advanced Traffic Management Interactive Session

Thursday, September 11, 10:30 a.m. – 12:00 p.m.	Cobo, Wayne and Oakland Halls

13533 **Calibration of Smart Motorways and Comparison of Two Schemes**
Jill Hayden, Professional Head of ITS Strategic Advice, Atkins, UK

12879 **Planning for Active Traffic Management in Southeast Michigan**
Stephanie Palmer, Region Traffic Safety and Operations Engineer, Michigan DOT, USA

13304 **Context and Business Rules Driven Active Traffic Management System**
Keeranoor Kumar, Product Manager, IBM, USA

13305 **Development of a Comprehensive Control Strategies to Mitigate Congestion on Freeway with Long Tunnel**
Tien-Pen Hsu, Associate Professor, National Taiwan University, Chinese-Taipei

13371 **An Analysis of Effect of Increase in Routes Covered by Information Service upon Driver's Route Choice Behavior**
Nobuhiro Uno, Associate Professor, Graduate School of Management & Department of Urban Management Graduate School of Engineering, Kyoto University, Japan

International Benefits, Evaluation, and Costs (IBEC) Sessions

IBEC1 – Will There be an Attractive/Convincing Cost Benefit Case Introducing C2X and Automated Vehicle Driving in Road Transportation?

Wednesday, September 10, 8:30 a.m. – 10:00 a.m. | **Cobo 110 B**

Session Track: ■ Connected Vehicles & Cooperative Systems

The still increasing number of fatalities and injuries in road transportation create a dramatic burden on the states social budget, daily traffic jams, over hours and miles reduce the national GDP significantly. Studies in recent years in Europe and U.S. have verified these figures and, consequently created big concern on both a policy and industry level. Technology developments in the last 10 years around the globe like, 'vehicle automation' and 'connected vehicles' promise a bright future but will require quite a significant investment on the vehicle side as well as on, the infrastructure side. Above that legal regulations as well as optimized utilization of infrastructure capacity (traffic management) needs to be, revised fundamental.

What drives this development? Is there a chicken and egg problem? Who, has to start with what and when? Public bodies? Private organizations? Vehicle industries? Insurance companies? Car Users? Will there be a, balanced business case for all groups involved?

The session will discuss these topics with respect to the technical, aspect, the financial aspect, emotional aspect (driver), legal aspect (mandatory equipment), organizational aspect (traffic management) and, the operational aspect with respect to the transition phase from 'zero' penetration rate to 100%.

Organizer
Reinhard Pflliegl, CEO A3PS, Austria

Speakers
Kevin Dopart, Program Manager, Connected Vehicle Safety & Automation, Joint Program Office, U.S. DOT, USA

Prof. Horst Wieker, Professor, HTW Saarland, Germany

R. Tugrul Güner, V2X Program Manager, KAPSCH TrafficCom AG, Austria

Hans Hendrik Puvogel, General Manager Automotive, ICT Automatisering, Germany

Xiaojing Wang, Chief Engineer, Research Institute of Highway, Chinese Ministry of Transport, China

Glenn Geers, Technology Director, NICTA, Eveleigh, Australia

IBEC2 – Evaluation and the Technology Showcase

Wednesday, September 10, 1:30 p.m. – 3:00 p.m. | **Cobo 110 B**

The Technology Showcase has become an integral element of World Congresses. Detroit is no different, with as many as 20 or more demonstration projects in the works for the September World Congress. IBEC has invited several partners involved in the Showcase to present their thinking on the technologies they are testing and introducing in the marketplace and with a particular emphasis on the evaluation protocols they applied to support their decision process. Effectively done, this ensures each technology application generates a sufficient return on investment to merit its organization's commitment.

Organizer & Moderator
Thomas Kern, Executive Vice President ITS America, USA

Speakers
Ray Resendes, Executive Director, NCR, VTTI, USA

Scott Brosi, Area Vice President, TransCore, USA

Paul Avery, Manager, Cooperative Systems R&D, SwRI, USA

IBEC3 – Evaluation of Connected Vehicles

Wednesday, September 10, 3:30 p.m. – 5:00 p.m. | **Cobo 110 B**

Session Track: ■ Connected Vehicles & Cooperative Systems

The connected world of vehicles and infrastructure promises to revolutionize mobility services. From vehicles that will not crash into each other to unprecedented information derived from increased data quality and volume — the connected world provides intriguing opportunities to save lives, increase efficiency, and to secure community-wide benefits of ITS.

Understanding the potential of these innovations and how they would operate in a real-world environment is critical for policy development, investment strategies, network operations and management, driver education, and legal and regulatory aspects.

Organizer
Richard Harris, Solution Director, International Transportation and Government Xerox Services, UK

Moderator
John Peracchio, Managing Director Peracchio & Company, USA

Speakers
Evangelos Mitsakis, Associate Researcher, Centre for Research and Technology Hellas - Hellenic Institute of Transport, Greece

Richard Harris, Solution Director, International Transportation and Government, Xerox Services, UK

Martin Böhm, Head of Unit Mobility Systems & ITS Deployment, AustriaTech, Austria

Marcia Pincus, Program Manager, ITS Joint Program Office, U.S. DOT, USA

Jan Willem Tierolf, Duth Ministry of Infrastructure and the Environment, Netherlands

IBEC4 – Evaluation of Highly Automated Driving and Truck Platooning

Thursday, September 11, 8:30 a.m. – 10:00 a.m. | **Cobo 110 B**

The expected deployment of highly or fully automated road transport for both individual passenger cars and for trucks increasingly raise questions about how these new ITS-based systems can and will be evaluated in terms of their benefits and costs. These systems promise to: (i) improve traffic safety by reducing driver workload and minimizing human errors due to driver distraction or reduced vigilance; (ii) increase mobility through a reduction of congestion in urban areas and on motorways by increasing vehicle density and minimizing speed variations; (iii) reduce vehicle emissions and fuel consumption; and (iv) provide important individuals, organizational and commercial productivity improvements (e.g. through road-trains for freight distribution). However, to what extent, if any, are these benefits actually likely to be realized? Can we model the future? How will drivers actually behave and react? What happens when there is a crash — are occasional tragedies something we can factor in to the benefits and costs calculations? What new metrics and performance measures do we need to consider in planning field operational tests? The session will focus on the challenge of evaluating these potential benefits and costs, and feature illustrative evaluation studies on such automated transport.

Organizer
Alan Stevens, Chief Research Scientist Transport Research Laboratory, UK

Moderator
Nick Reed, Principal Human Factors Researcher TRL, UK

Speakers
Hiroano Kawashima, Emeritus Professor, KEIO University, Japan

Joshua Switkes, CEO, Peloton Technology, USA

Richard Bishop, Principal, Bishop Consulting, USA

Maarten Oonk, Principal Researcher, TNO, Netherlands

Myra Blanco, Director, Center for Automated Vehicle Systems, Virginia Tech Transportation Institute, USA

IBEC5 – Evaluating Benefits and Business Cases for Cooperative ITS (connected vehicles)

Thursday, September 11, 1:30 p.m. – 3:00 p.m. | **Cobo 111 A**

Session Track: ■ Connected Vehicles & Cooperative Systems

Cooperative ITS (also called C-ITS and connected vehicle) provides services that involve communicating information between vehicles (V2V) and/or between vehicles and the road infrastructure (V2I). Services include short latency safety messages (e.g. pre-collision preparation), collection of "probe vehicle" travel times, and provision of dynamic congestion and routing information. As well as cellular communications some countries have established dedicated beacon infrastructures for V2I services or are trialing a beacon-based architecture for some applications. With such a wide range of services and options, pre-deployment assessment and during deployment evaluation are both challenging and important.

This session will discuss methods of evaluating the incremental benefits of C-ITS beyond non-cooperative systems and provide examples of on-going deployment practice.

Organizer
Richard Harris, Solution Director, International Transportation and Government, Xerox Services, UK

Moderator
Richard Harris, Solution Director, International Transportation and Government Xerox Services, UK

Speakers
Ken Leonard, Director of the Intelligent Transportation Systems, ITS Joint Programs Office, U.S. DOT, USA

James Sayer, Program Manager, Safety Pilot Test Conductor & Associate Research Scientist, University of Michigan Transportation Research Institute

Zachary Doerzaph, Director, Center for Advanced Automotive Safety, Virginia Tech Transportation Institute, USA

Nick Reed, Principal Human Factors Researcher, TRL, UK

S.K. Jason Chang, Professor, National Taiwan University, Chinese-Taipei

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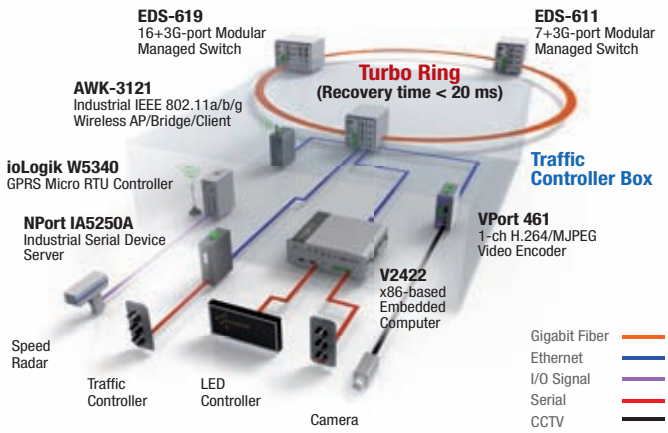

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Middle East and Africa ITS Initiatives Sessions

INT01 – Arabian Gulf Region Showcase

Tuesday, September 9, 10:30 a.m. – 12:00 p.m.

Cobo 413 A

The Gulf Cooperating Council (GCC) consists of UAE, Saudi Arabia, Qatar, Kuwait, Bahrain and Qatar — by far the richest and most dynamic economies in the Arabian Gulf region. In 2012, the region had a fast-growing population estimated at 42,100,000, a nominal GDP of $2.1 trillion USD, and per capita GDP of $33,005.

A number of important ITS projects will be presented in this session, ranging from major ITS standards projects in the United Arab Emirates, to traffic violation enforcement in Saudi Arabia, to state-of-the-art intelligent transport projects in Qatar. The speakers are drawn primarily from the public sector agencies that are managing and funding the projects, with assistance from some of their main international consultants.

Organizer & Moderator

Todd W. Kreter, Sr. Vice President/General Manager, Roadway Sensors, Iteris, Inc., USA

Speakers

Tariq Gosty, Director of Traffic Engineering Safety Department, Ministry of Transport, Saudi Arabia

Hamad Al Afeefi, Acting Director, Traffic Management & Technology Division, Abu Dhabi DOT, UAE, United Arab Emirates

Adnan Abu-Dayya, CEO, Qatar Mobility Innovations Center, Qatar

Atef Garib, Senior Advisor, Abu Dhabi Traffic Police, United Arab Emirates

Abdulaziz Alghannam, Director of Strategic Studies, Arriyadh Development Authority, Saudi Arabia

Husam Musharbash, President & CEO, Traffic Tech Group

Gabriel Sanchez, Project Manager, Abu Dhabi Global Road Safety Forum 2014, USA

INT02 – Africa - A New Growth Area for ITS

Thursday, September 11, 10:30 a.m. – 12:00 p.m.

Cobo 413 A

Developed as a problem-solving approach, Intelligent Transport Systems grew from its initial humble beginnings, to flavor-of-the-month, to value adding, deployment, to "you want MORE funding!" and to maturity. Hence, a "deployment ceiling" in many of the traditional and subsequent, ITS markets. To sustain its growth, the ITS industry needs to offer new solutions to new markets. Africa is one such new growth area, with, GDP growth for Africa as a whole at 6.6% in 2013 (AfDB Statistics Department). With the Continent experiencing increased political and, economic stability, there is strong positive support from international funders and donor organizations. Linked to massive emerging consumer, and commuter markets, Africa offers new opportunities for those that have the stamina to enter this exciting, yet challenging, environment. ITS, Ethiopia, ITS Nigeria, and ITS South Africa are the founding members in the establishment of ITS Africa that will play a facilitating role for this, new phase in ITS deployment on the continent. The format will be a brief introduction, four short presentations, and then an interactive discussion.

Organizer & Moderator

Paul Vorster, CEO ITS South Africa and Member ITS Africa Working Group, South Africa

Speakers

Johann Andersen, Professor, Smart Mobility Lab, Stellenbosch University, South Africa

Desmond Amiegbebhor, Director, Bus Services, Lagos Metropolitan Area Transport Authority (LAMATA), Nigeria

Abiyu Berlie, ITS Program Coordinator, New York City Metropolitan Transport Authority, Founding Member of ITS Ethiopia, USA

Debo Shopade, Managing Consultant, ITS Nigeria/Genyz Transport Solutions, UK

Joshua Adetunji Odeleye, Assistant Director, Nigerian Institute Of Transport Technology, Nigeria

Annual Meeting Sessions

AM01 – Sustainable Transportation Performance Measures: Best Practices

Monday, September 8, 10:30 a.m. – 12:00 p.m. | **Cobo 113 B**

Session Track: ■ Sustainability

This session will present examples of best practices and deployed ITS technologies on the use of performance measures associated with sustainable transportation. The presentations will cover various topics on mobility, safety, and system reliability performance measures as well as environmental and social sustainability.

Organizer & Moderator
Farhad Pooran, Vice President of Engineering Schneider Electric, USA

Speakers
Adam Moser, Senior Engineer, Gresham, Smith and Partners, USA

Ramin Masssoumi, Vice President, Iteris, Inc., USA

Mohammed Hadi, Florida International University, USA

Hamed Benouar, Vice President, Business Development and Government Relations, Sensys Networks, USA

AM02 – 5.9 GHz Dedicated Short Range Communications: Will there be Available Spectrum Resources at 5.9 GHz to Support DSRC Deployment?"

Monday, September 8, 3:00 p.m. – 4:30 p.m. | **Cobo 116 B**

DSRC is the principal enabling technology for U.S. DOT's multi-year Connected Vehicle research program, which envisions reducing or eliminating vehicle crashes through a fully connected transportation system uniting drivers, vehicles, wireless devices and the road infrastructure. A Connected Vehicle future envisions that transportation data will be exchanged instantaneously among vehicles in proximity to one another ("vehicle-to-vehicle" or "V2V" wireless communications) as well as with the road infrastructure ("vehicle-to-roadside infrastructure" or "V2I" wireless communications) to enhance mobility and improve safety. The key enabler for DSRC is 75 MHz of wireless spectrum allocated by the Federal Communications Commission (FCC) at 5850-5925 MHz (5. 9 GHz Band). A current proceeding before the FCC is proposing to permit unlicensed devices (i.e. Wi-Fi) to share the 5.9 GHz Band. This session will explore the implications of any such sharing for DSRC. Speakers representing device makers, vehicle OEMs, cable industry, among others, will discuss the on-going proceeding and how DSRC and unlicensed operations may, or may not, share the 5.9 GHz Band.

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Organizers
Mark D. Johnson, Senior Attorney Squire Patton Boggs (US) LLP, USA

Robert B. Kelly, Partner, Squire Patton Boggs (US) LLP, USA

Moderator
Robert B. Kelly, Partner, Squire Patton Boggs (US) LLP, USA

Speakers
Mary Brown, Director Government Affairs, Cisco Systems, Inc., USA

Mark Settle, Chief, Policy and Rules Division, Office of Engineering & Technology, Federal Communications Commission, USA

Mitch Bainwol, President and CEO, Alliance of Automobile Manufacturers, USA

Jim Lansford, Fellow, Global Standards, CSR Technology, USA

AM03 – Commercial Vehicle and Freight Movement Technologies for Safety, Efficiency, Mobility, and Enforcement

Monday, September 8, 3:00 p.m. – 4:30 p.m. | **Cobo 113 B**

Session Track: ■ Freight

This session will survey leading and innovative technology projects in the commercial vehicle and freight movement areas of transportation. The session will focus on four different technology applications: road weather/maintenance operations, crash avoidance systems and return on investment, traveler information for freight movement, and roadside screening.

Organizer
Richard McDonough, Director of the Planning and Development Bureau, Office of Modal Safety and Security New York State DOT

Moderator
Peter Appel, Director AlixPartners, USA

Speakers
Randy Mullett, Vice President Government Relations and Public Affairs, Conway

Brian Heath, President, Intelligent Imaging Systems & I-95 Corridor Coalition

Richard Bishop, Principal, Bishop Consulting, USA

AM04 – Integrated Corridor Management

Tuesday, September 9, 10:30 a.m. – 12:00 p.m.

Cobo 113 B

Multimodal Solutions, early lessons learned from the first 6 months of operations of the Dallas and San Diego Integrated Corridor Management Demonstrations. Description of the opportunities by the next wave of deployers.

Organizer & Moderator
Brian Cronin, Team Leader, ITS Research and Demonstration ITS Joint Program Office, U.S. DOT

Speakers
Steve Mortensen, Senior ITS Engineer, Federal Transit Administration, USA

J. Alex Estrella, Senior Regional Planner, San Diego Association of Governments, USA

Todd Plesko, Vice President of Planning and Development, Dallas Area Rapid Transit, USA

Deepak Gopalakrishna, Program Manager, Critical Infrastructure Transportation Operations (CITO), Battelle, USA

AM05 – Transportation Management Centers — Past, Present, and Future

Tuesday, September 9, 10:30 a.m. – 12:00 p.m.

Cobo 116 B

Session Track: ■ Traffic Management

This session will investigate the past, present, and future of TMCs, with one panelist discussing each. Some of the questions to be addressed by the panel include: What is the current state of TMCs across the country? What will TMCs of the future look like and be capable of? What do DOTs need to do to get this point? This last question is the most pertinent, as the organizer of the session would like to come up with concrete suggestions on how to do this. During the "TMC of the future" portion of the session, which will come last, the session will relocate to the exhibition hall floor so that the panelist can demonstrate to the session audience the planned mock TMC.

Organizer & Moderator
Robert Edelstein, Vice President of ITS in North America AECOM, USA

Speakers
Dean Gustafson, State Operations Engineer, Virginia DOT, USA

Steve Kuciemba, Vice President & National ITS/Operations Director, Parsons Brinckerhoff, USA

Steve Corbin, Director of Operations, State Road and Tollway Authority, USA

AM06 – V2X and Automated Vehicles: the Upcoming Intersection

Tuesday, September 9, 1:00 p.m. – 2:30 p.m.

Cobo 116 B

Technology is clearly going to reshape the motor vehicle landscape in the coming years. Two major innovations — V2X connectivity and fully autonomous driving — are quickly emerging as the two technologies that will potentially have the most profound effect on the industry in the past half century. While some characterize the two as competing technologies, it makes more sense to view them as complementary — each providing unique strengths that will advance roadway safety. Panelists will address how the two different approaches and they will complement each other. What are the primary interoperability challenges between the two approaches? How can the different technologies leverage data from their respective sources to improve vehicle safety? How can we reduce the lengthy lead times to getting these vehicles on the roadways? What are the major hurdles for widespread adoption?

Moderator
David Strickland, Administrator National Highway Safety Administration, USA

Speakers
Farid Zaid, Ford Motor Company, USA

Ron Medford, Director of Safety, Google Self-Driving Car, Google, USA

Bryant Walker Smith, Stanford University, USA

John Maddox, Director of Collaborative Program Strategies, University of Michigan Transportation Research Institute (UMTRI), USA

AM07 – U.S. DOT ITS Strategic Plan

Tuesday, September 9, 1:00 p.m. – 2:30 p.m.

Cobo 113 B

ITS Joint Program Office will summarize key theme areas and programs planned for the 2015 to 2019 ITS Strategic Plan.

Organizer & Moderator
Ken Leonard, Director of the Intelligent Transportation Systems ITS Joint Programs Office, U.S. DOT, USA

Speakers
Kate Hartman, ITS Joint Program Office, U.S. DOT

Dale Thompson, Program Manager, ITS Joint Program Office, U.S. DOT, USA

Walton Fehr, Manager, ITS Systems Engineering, ITS Joint Program Office, U.S. DOT, USA

Kevin Dopart, Program Manager, Connected Vehicle Safety & Automation, Joint Program Office, U.S. DOT, USA

AM08 – Transportation System Management and Operations

Wednesday, September 10, 8:30 a.m. – 10:00 a.m. | **Cobo 116 B**

TSM&O is a growing trend in transportation that emphasizes the need to improve the efficiency of the existing transportation system as an alternative to building expensive new facilities, as has been done in the past, in order to handle growing demand. Strategies to be considered for improving efficiency include Integrated Corridor Management and Active Traffic Management, as well as widespread implementation of connected and automated vehicle technologies.

Specifically, the session(s) will cover the following topics:
- TSM&O Program Plans [NCHRP Project 20-7(345)]
- Next Generation TSM&O Strategic Research Framework [NCHRP Project 20-7(359)]
- AASHTO Connected/Automated Vehicle Research Roadmap (NCHRP Project 20-24)
- Federal/State Perspectives for Linking Research to Planning and Operations

Organizer
Greg Larson, Chief Office of Traffic Operations Research, Caltrans Division of Research, Innovation and System Information, USA

Moderator
Coco Briseno, Chief Caltrans Division of Research, Innovation and System Information, USA

Speakers
Dean Gustafson, State Operations Engineer, Virginia DOT, USA

Stephen Lockwood, Senior Vice President, Parsons Brinckerhoff, USA

John Corbin, PE, PTOE, Director of Traffic Operations, Iowa DOT, USA

Katie Benouar, Chief, Division of Transportation Planning, California DOT (Caltrans), USA

Gummada Murthy, Associate Program Director, Operations, AASHTO, USA

AM10 – Organizational Success at Local Chapters

Wednesday, September 10, 10:30 a.m. – 12:00 p.m. | **Cobo 116 B**

This session will include presentations from all categories of annual State Chapters Award winners with PowerPoint summaries of their award applications and elaborations in each category that will highlight best practices and successes in their chapters. Local chapters will get to share ideas and see items they may wish to emulate to make their own chapters stronger. The presenters will have the opportunity to showcase their selected ITS projects, small and large, local and national. It is hoped that demonstrations of these project successes and corresponding partnerships at work would increase public and private sector interest in chapter affiliations.

Organizers
Durga Panda, ITS Minnesota, USA

Melvin Evans, IT Manager SMART, USA

Moderator
Koreen Bjorklund, Regional Sales Manager, New England/ Mid-Atlantic Regions Daktronics, USA

AM11 – Private Consumer Applications and the Growing Request to Interface to Public Traffic Systems

Wednesday, September 10, 10:30 a.m. – 12:00 p.m. | **Cobo 113 B**

Session Track: ■ Big Data and Open Data

Developers of traffic information systems and third-party smartphone and automotive applications have started to request interfaces with, public traffic data and software systems — for example, a smartphone application that predicts a driver's wait time at a red light. The intent, of this session is to bring together private sector app developers with public sector officials to discuss some of the issues regarding the use, of public data for this purpose. Some of the questions to be addressed by the panel include: What is the protocol for allowing app developers, to access, use, and share data? How should issues such as security, liability, and data quality control be handled?

Organizer
Adam Moser, Senior Engineer Gresham, Smith and Partners, USA

Moderator
Michael McGurrin, Senior Fellow, Transportation Systems Noblis, USA

Speakers
Matt Ginsberg, CEO, Chairman, and Founder, Connected Signals, Inc., USA

Jeff Spinazze, Senior Vice President, Econolite Group Inc, USA

Nisar Ahmed, Data and Technology Strategist, Regional Traveler Information Program, Metropolitan Transportation Commission, Oakland, CA, USA

AM12 – Future of Fleet Automation

Wednesday, September 10, 1:30 p.m. – 3:00 p.m. | **Cobo 116 B**

Session Track: ■ Automated Transportation

Highly automated trucks will use advanced sensing and computing technologies to provide improvements over human performance. Applied in carefully selected operating environments and with appropriate fault-handling features, fleet automation will result in significant decreases in the frequency and severity of highway crashes. This has been recognized in major truck automation development projects in Japan, Germany, and Sweden. This session will focus on existing and future planned developments in fleet automation around the world including the North America, Asia, and Europe.

Organizer & Moderator
Steven Underwood, Director Institute for Advanced Vehicle Systems, University of Michigan - Dearborn, USA

Speakers
Mohammad Poorsartep, Project Manager, Connected Transportation Initiative, Texas A&M Transportation Institute, USA

Osman Altan, Federal Highway Administration

Daniel Bartz, TARDEC, USA

Richard Bishop, Principal, Bishop Consulting, USA

AM13 – FHWA Infrastructure Deployment Guidance

Wednesday, September 10, 1:30 p.m. – 3:00 p.m. | **Cobo 113 B**

FHWA will discuss areas of analysis for the 2015 Initial Infrastructure Guidance.

Organizer & Moderator
Jeffrey Lindley, Associate Administrator of Operations Federal Highway Administration, U.S. DOT

Speakers
Robert Arnold, Director, Transportation Management, Office of Operations, Federal Highway Administration, U.S. DOT, USA

Ben McKeever, Team Leader, Transportation Operations Applications, Federal Highway Administration, USA

Bud Wright, Executive Director, American Association of State Highway and Transportation Officials, USA

Blaine Leonard, ITS Program Manager, Utah DOT, USA

AM14 – Autonomous Vehicles: Savior of the Western World or an Over-Hyped Version of new Cars?

Wednesday, September 10, 3:30 p.m. – 5:00 p.m. | **Cobo 111 A**

Session Track: ■ Automated Transportation

This session will present a range of views regarding the development of autonomous vehicles. These range from true believers who see driverless, vehicles being sold within the next few years and generating a new way of transportation with significant implications for everything from urban, form to traffic congestion. Others see this as a modestly paced natural development of technical improvements.

Organizer & Moderator
Richard Mudge, President Compass Transportation and Technology, USA

Speakers
Steven Shladover, Research Engineer/Program Manager, California PATH, ITS Berkeley, University of California, USA

Stephen Lockwood, Senior Vice President, Parsons Brinckerhoff, USA

Joseph Peters, Director, Office of Operations Research and Development, Federal Highway Administration, USA

John Niles, Research Director, Center for Advanced Transportation and Energy Solutions – CATES, USA

Scott McCormick, President, Connected Vehicle Trade Association, USA

James Misener, Independent Consultant, USA

Andrew Cunningham, Volkswagen, USA

Ken Laberteaux, Senior Research Scientist, Future Mobility Research Department, Toyota Research Institute of America

AM15 – Finding Alpha in Smart Technologies: Investor Perspectives on the Connected Vehicle and Intelligent Transportation Sector

Wednesday, September 10, 3:30 p.m. – 5:00 p.m.

Cobo 113 B

Intelligent transportation systems such as vehicle-to-vehicle and vehicle-to-infrastructure communications have caught the attention of investors in light of the National Highway Traffic Safety Administration's announced mandate. Representatives of investor groups and financial institutions on this panel will provide their perspectives on companies impacted by this development, including automotive manufacturers and their suppliers, telecommunication businesses, and others.

Organizer
John Peracchio, Managing Director Peracchio & Company, USA

Moderator
James Albertine, Vice President, Equity Research - Automotive Stifel Nicolaus, USA

Speakers
David Markowitz, Founder, Oskie Capital, USA

John Peracchio, Managing Director, Peracchio & Company, USA

Annie Rosen, Research Analyst, Fidelity Management & Research Co., USA

AM16 – The Sharing Economy and Shared Mobility

Thursday, September 11, 8:30 a.m. – 10:00 a.m.

Cobo 113 B

Session Track: ■ New Mobility

While sharing resources is not a fundamentally new model of social interaction, the presence of a "sharing economy" is a rapidly growing, innovative concept. The sharing economy is an economic model based on "sharing" rather than "owning" assets, and is hailed by many as an opportunity to enhance the sustainability of the current economy while simultaneously yielding various additional co-benefits. High levels of online connectivity, "living local" community-oriented awareness, and heightened consciousness of costs and environmental issues have caused the sharing economy to flourish across the United States. The sharing economy allows for the sharing of numerous forms of property, such as home-sharing, ridesharing, bikesharing, carsharing, and more. Carsharing, bikesharing, ridesharing, and transportation networking companies are among the most popular subsets of the sharing economy, and they operate within a number of different frameworks. This session provides an introduction to the sharing economy and its various transportation services.

Organizer & Moderator
Susan Shaheen, Ph.D., Adjunct Professor and Co-Director, Transportation Sustainability Research Center University of California, Berkeley, USA

Speakers
Kaye Ceille, President, Zipcar, USA

Sharon Feigon, Executive Director, Shared-Use Mobility Center, USA

Joseph Kopser, Co-Founder, CEO, RideScout, USA

Sean O'Sullivan, CEO, Carma, Ireland

AM17 – ITS Improvements that Lead to Safety: The State Perspective

Thursday, September 11, 8:30 a.m. – 10:00 a.m.

Cobo 116 B

Session Track: ■ Traffic Safety

As we move through the 21st century, Intelligent Transportation Systems (ITS) are beginning to take a substantial foothold in current and future deployment plans. Although ITS solutions offer improvements across all areas of transportation, it is the potential for dramatic safety improvements that has the attention of many transportation officials. During this session speakers from State DOTs will share their perspectives on ITS through showcasing their current and future planed ITS deployments for the next 5, 10, and 20 years. Learn how ITS has demonstrated lifesaving outcomes and what benefits are anticipated for the next generation of deployments.

Organizer
Zachary Doerzaph, Director, Center for Advanced Automotive Safety Virginia Tech Transportation Institute, USA

Moderator
Catherine McGhee, Associate Director for Safety, Operations and Traffic Engineering VDOT/VCTIR, USA

Speakers
Ray Starr, Asst State Traffic Engineer-ITS, Minnesota DOT, USA

Dean Gustafson, State Operations Engineer, Virginia DOT, USA

Matthew Smith, ITS Program Manager, Michigan DOT, USA

Bill Legg, State ITS Operations Engineer, Washington State DOT, USA

AM18 – Human Factors Leading to Safe and Connected Automation

Thursday, September 11, 10:30 a.m. – 12:00 p.m. | **Cobo 113 B**

Session Track: ■ Traffic Safety

Driver distraction plays a predominant role in traffic crashes. The connected/automated vehicle stands to significantly improve transportation safety by reducing, and possibly eliminating, crashes that arise from driver inattention. However, the pathway to connected automation faces many human factor challenges. First, information services, rather than safety, may be the driving force behind the demand for connected vehicle technology. Managing the amount of information delivered to drivers so that drivers do not become overloaded is a considerable concern. Secondly, such information services stand to greatly draw drivers' attention away from the road once the vehicle's operation becomes partially automated. As such, it is imperative that connected/automated vehicles be designed to convey their capabilities, deter over-reliance, and safely transfer control back to drivers when they fail. This panel will discuss how connected/automated vehicles can be designed to address these human factor issues by following an iterative user-centered design process throughout the design cycle.

Organizer
Gregory M. Fitch, Research Scientist, User Experience Group Leader Center for Automated Vehicle Systems, Virginia Tech Transportation Institute, USA

Moderator
James Misener, Independent Consultant, USA

Speakers
Adrian Zlocki, Senior Manager Driver Assistance, fka - Forschungsgesellschaft Kraftfahrwesen mbH Aachen, Germany

Christian Gold, Research Associate, Technische Universität München – Institute of Ergonomics, Germany

Charles (Chuck) Green, Global Lead, Driver Performance/ Research, General Motors Safety Electronics, USA

Tim Johnson, Director, Crash Avoidance and Electronic Controls Research, National Highway Traffic Safety Administration, U.S. DOT, USA

AM19 – DSRC Spectrum Sharing

Thursday, September 11, 10:30 a.m. – 12:00 p.m. | **Cobo 116 B**

The panel will discuss aspects of the President's Broadband Initiative as well as the current status of spectrum sharing proposals in the 5.9 GHz band, and results of testing on whether unlicensed users can coexist with V2V and V2I safety applications without causing interference and/or denial of service.

Organizer & Moderator
John Augustine, Managing Director ITS Joint Program Office, U.S. DOT, USA

AM20 – New Urban Mobility: Is This the Death of Public Transit as we Know it?

Thursday, September 11, 1:30 p.m. – 3:00 p.m. | **Cobo 113 B**

Session Track: ■ New Mobility

The combination of technology and new institutions has generated new ways to achieve urban mobility. These range from shared cars and shared bicycles to autonomous vehicles to telecommuting; to jitneys and on-call cars. Do these compete with traditional transit, picking off customers or can they help transit by providing "last mile" access? What alternative strategies are possible?

Organizer
Richard Mudge, President Compass Transportation and Technology, USA

AM21 – Deployment Incentives Report

Thursday, September 11, 1:30 p.m. – 3:00 p.m. | **Cobo 110 B**

MAP-21 Required USDOT to prepare a report on ITS deployment incentives. Come hear about the report and deployment opportunities.

Organizer
Robert Sheehan, Program Manager, ITS Joint Program Office, U.S. DOT, USA

Moderator
Robert Sheehan, Program Manager, ITS Joint Program Office U.S. DOT, USA

Speakers
Robert Arnold, Director, Transportation Management, Office of Operations, Federal Highway Administration, U.S. DOT, USA

Steve Mortensen, Senior ITS Engineer, Federal Transit Administration, USA and

John M. Corbin, Director of Traffic Operations, Iowa DOT, USA

Technology Showcases

Sponsored by: DENSO

The 2014 ITS World Congress Technology Showcase will provide attendees a hands-on experience across more than 30 demos, more than any World Congress to date. A wide range of technologies will be on display, including connected and autonomous vehicles, electric vehicles, robotics, sensor technology, real-time weather and road conditions data analysis, and many others.

Important Information

You can sign up for a technology showcase demonstration either online through your registration portal or at the back of the exhibit hall at the demo launch area. All of the demonstrations in the Technology Showcase will run daily with select hours, and transportation will be provided to and from Belle Isle, Atwater Parking Lot, and Next Energy. Food trucks will be available on Belle Isle for attendees who plan to visit during either breakfast, lunch, or during the Michigan Festival Tuesday evening. All attendees must be registered and have picked up their registration badge at Cobo Center before proceeding to any demonstrations at Belle Isle, the Atwater Parking Lot, or NextEnergy. **For all demonstrations, please arrive at the shuttle launch area at the back of the exhibit floor at least 30 minutes before your demonstration time to allow for transportation.**

Integrated Mobile Observations (IMO)

ZONE 1

U.S. DOT ITS Joint Program Office / FHWA Road Weather Program

Participants will sit in a specially instrumented demo van, which will do a short loop on Belle Isle. As the van moves, participants will observe road weather connected vehicle data being generated by the demo van. After driving a little further, participants will see advisory warnings, based on road weather conditions artificially generated on-site. The van will proceed further and participants will observe the road weather connected vehicle data captured by the Weather Data Environment. A complementary demo inside the exhibit hall will show how road weather connected vehicle data and applications will help improve transportation operations in the future. This demo will run for 10-15 minutes.

V2X Enabled Automated Driving

ZONE 1

DENSO Corp.

DENSO's live demonstration shows how automated driving is accomplished using the same device that enables communications. DENSO equipped a "lead" and "follow" vehicle with dedicated short-range communications (DSRC) devices to demonstrate automated driving. The "follow" vehicle receives driving data from the "lead" vehicle, including position, steering and acceleration through V2V communication. DENSO's live demonstration shows how automated driving can be realized without special sensors.

Peterbilt Autonomous Assisted Driving Demonstration

ZONE 1

Peterbilt Motors

Heavy Duty Trucks are ideal candidates for autonomous assisted driving, because they travel a majority of their miles on improved highways, at constant speed, and for long durations of time. Autonomous Assisted Driving increases safety through continuous situational awareness (sensor fusion / lane keeping), reduced driver fatigue, and increased driving accuracy. It offers improved fleet efficiency through fuel savings, smart cruise / creep control, and vehicle platooning.

The Peterbilt Autonomous Assist Demonstrator seeks to define additional benefits and efficiency gains leveraging GPS Navigation, Last Mile Routing, and Parking Assist.

Car Sharing

ZONE 1

Verizon

- Provide a real time demonstration showing the capability for rental companies to automate or enhance current rental transactions, enabled by Verizon.
- Digital signage that provides technology that provides the latest up to date information needed to enhance all levels of car rental information and management.

Advanced Perception and Localization Technology that Enables Connected Automation

ZONE 1

SwRI

SwRI will demonstrate various technology enablers for Connected Automation. Using multiple highly automated vehicles, SwRI will show how advanced low-cost perception and localization technology has matured to the point where transportation solutions can be augmented with this technology to solve today's transportation problems.

Connected Automated Valet Parking

ZONE 1

Valeo

Connected Automated Valet Parking enables the driver to leave the car at the parking lot entrance. After launching the parking maneuver using the feature's Smartphone App, the car exchanges with the parking infrastructure to be assigned a vacant space and provide information enabling the car to calculate the best way to get there. The car then starts off in fully autonomous mode, finding the space and parking itself. The Smartphone App also is used to recall the car to the entrance. In addition to the communication module, this solution uses 12 ultrasonic sensors, four cameras and a unique laser scanner.

Highly Automated Driving

ZONE 2

IAV Automotive Engineering

IAV is aiming to move people with driving demonstrations of its Highly-Automated Driving (HAD) vehicle. Attendees will have the chance to test drive IAV's vehicle — a 2015 Volkswagen Golf 7. The production vehicle was converted to an automated platform by IAV to showcase the company's depth of experience and expertise with HAD. IAV is thrilled to show off the vehicle's capabilities at the upcoming event. The Golf 7 will highlight functional safety, automotive control strategies, system architecture, sensor competencies and more.

The automated vehicle is equipped with:

- Adaptive cruise control
- Blind spot detection
- Lane-change assistance
- Parking assistance
- Emergency Braking Systems and more

V2V Technology Driving Demonstration

ZONE 2

Visteon Corporation

This is a ride-n-drive demonstration where a total of three occupants in one vehicle can experience a fully integrated cockpit HMI demonstrating three vehicle-to-vehicle use cases: obstructed stopped vehicle ahead warning, emergency electronic brake light warning, and slippery road condition ahead warning.

Showcases continues on next page >

Xerox Vehicle Passenger Detection System

ZONE 2

Xerox Corporation

Xerox will demonstrate a technology that will enable an agency or law enforcement to monitor and/or enforce use of HOV/HOT lanes. Participants will be able to observe the Xerox Vehicle Passenger Detection System in operation. Drivers will be provided. Vehicles will have differing number of occupants. Vehicles will make a short loop along a roadway. The system will automatically determine the vehicle occupancy in real time and a display will indicate the occupancy state. Participants will be able to see the output from the Xerox Vehicle Passenger Detection System including the images of passengers in the vehicle, and the passenger count as determined by the Xerox system.

Driver State Sensor

ZONE 2

Delphi

Delphi's MyFi® infotainment systems help keep users connected to their personal information and entertainment content in a convenient, user-friendly way while mitigating driver distraction and maximizing safety. Delphi proprietary workload manager software, along with the driver state sensor, monitors the driver's attention and intelligently minimizes activities when too distracted. Our latest generation software has the capability to seamlessly function even if the driver is wearing sunglasses.

Driving Automated & Connected Technologies

ZONE 3

General Motors R&D, OnStar

Participants can get a sense of an evolutionary path towards a connected autonomous vehicle by experiencing a series of automated driving and safety features, utilizing both on-board sensors and V2X technology.

Experience some of GM's first 2015 model year vehicles equipped with OnStar 4G LTE in a short demonstration. Key features include: built-in Wi-Fi hotspot, ability to connect multiple mobile devices at once, more powerful connection than a smart phone or mobile hotspots and ability to connect to vehicle remotely. Participants will learn about OnStar's 18 years of leadership in telematics and its growing suite of multi-dimensional service offerings.

Nationwide Tolling Interoperability

ZONE 3

TransCore

TransCore will demonstrate nationwide tolling interoperability solution on a live test track. The GoAnywhere Pass™, a multi-protocol tag will be tested in a low-speed loop using an RF reader. An on-site computer will simulate a tolling environment, demonstrating interoperability scenarios across multiple protocols. The GoAnywhere Pass™ can support both commercial trucks and private vehicles, by offering one tag, one account functionality.

Navia Autonomous Shuttle

ZONE 3

Induct Technology

Navia is the only 100% electric, driverless shuttle that needs no special infrastructure such as rails, or a designated path so it can work on any kind of site.

Induct has been running pilot projects with several customers, who so far are using the shuttles in pedestrian-heavy or industrial sites, such as college campuses, in Europe and Asia.

By utilizing advanced robotics, laser mapping technology and sensors that detect the vehicle's acceleration and rotation, Navia instantly calculates its position, nearby obstacles, route and distance traveled in real time, enabling it to carry up to eight passengers quickly, safely and efficiently.

Applications of Unmanned Aerial Vehicles for Transportation Agencies

ZONE 3

Michigan Tech Research Institute (MTRI), a research center of Michigan Technological University

Our combined Michigan Tech/Michigan DOT team will be demonstrating applications of unmanned aerial vehicles (known as a UAV) for transportation agencies. These rapidly advancing imaging platforms can help achieve efficiencies in operations, maintenance, and asset management. The team is planning demonstrations of confined space inspection, a tethered blimp for traffic monitoring, and indoor UAV flights at Cobo Hall; UAV flights at Belle Isle are possible. Attendees will have the ability to see different sensors collecting data that can be used for evaluation of bridge elements, other transportation infrastructure, and emergency response scenarios.

Multi-standard V2X Demonstration powered by RoadLINK from NXP

ZONE 4

NXP Semiconductors

NXP Semiconductors will showcase our innovative RoadLINK technology by providing demonstrations of several safety critical vehicle-to-vehicle and vehicle-to-infrastructure use cases. In addition, we will demonstrate the ability of our solution to support multiple standards on the same hardware platform. During our demo rides, participants will see the real-time DSRC messaging between multiple vehicles and several infrastructure placements. As an added attraction, the award winning 'Stella' solar powered vehicle will be a part of our demonstration set up.

PolySync™, The Autonomy Operating System

ZONE 4

AutonomouStuff

AutonomouStuff, the world's leader in supplying products and services that enable autonomy, will provide an interactive vehicle demonstration presenting HARBRICK'S **PolySync™, The Autonomy Operating System**. PolySync enables the next generation of rapid autonomous system development and low-cost mass production deployment. Similar to mobile platforms, it turns robot development into app development. PolySync is purpose-built to parse, synchronize, log, fuse and visualize data from varying sources (radar, LiDAR, GPS, IMU, video) and make it available in a consistent, user-friendly, open format. The data provided is the enabler of the future of automated driving. The future is now, just ahead of schedule. We're happy to have you along for the ride.

Traffic Jam Assist with 360° Surround View

ZONE 4

Robert Bosch LLC

By coupling radar and video technology, the partially-automated driver assist function controls longitudinal and lateral movements of the vehicle in congested traffic at speeds below 35 mph. If necessary to change lanes or if obstacles are detected, the system returns control to the driver.

To achieve a 360° view, 4 near-range cameras transmit vehicle surroundings and transfer the images to an ECU for processing. The combined image is shown on the vehicle's display unit which aids the driver by providing a view of the vehicle's immediate surroundings.

Connected Vehicle Safety Technology Demonstration

ZONE 4

U.S. DOT and the Crash Avoidance Metrics Partnership (CAMP)

Connected Vehicle Cooperative Safety Systems use 5.9 GHz Dedicated Short Range Communications (DSRC) to enable vehicle active safety systems that may help drivers avoid crashes. The United States Department of Transportation (U.S. DOT) has partnered with the Crash Avoidance Metrics Partnership (CAMP) to research, develop and test the technologies that form the framework for these systems. Demonstration participants will ride in vehicles from various OEMs and experience the effectiveness of the safety applications in staged potential crash scenarios.

HERE Connected Driving Technology Showcase

ZONE 4

HERE

HERE is shaping the future of the next generation of connected transportation. From continued innovation in map collection and creation, to development of smart and contextual experiences, HERE is the location cloud powering intelligent transportation services of the future. HERE has also partnered with innovative companies to showcase how together, we are working to bring the vision of smart cities and intelligent services to life. Join us on Belle Isle to experience connected navigation & infotainment solutions, predictive traffic services, the communication of V2X safety messages with lane-level hazard detection, the latest in RSU-based sub-meter localization technologies and much more.

Omni-Directional Safety System: V2X & Automated Driving to Protect a Variety of Road Users

ZONE 4

Honda Belle Isle demo

Honda will demonstrate the remarkable potential of a vehicle built to make full use of DSRC-LTE multi-modal wireless communication. A series of scenarios will demonstrate what is possible when V2X communications are intelligently engineered together with advanced automatic controls to protect a variety of road users such as pedestrian, motorcyclists, and drivers with emergency needs. Participants can experience these technologies in a variety of real-world driving scenarios on a closed course on Detroit's historic Belle Isle.

The VTTI Connected and Automated Vehicle Experience

ZONE 4

Virginia Tech Transportation Institute

VTTI's research has great impact on public policies for driver, passenger, and pedestrian safety and is advancing the design of vehicles and infrastructure to increase safety, mobility, and protect the environment. To accomplish its groundbreaking research, VTTI uses a range of tools, including the Virginia Smart Road, the creation of compelling realistic surprise driving scenarios, and data acquisition systems. In the VTTI demonstration, the participants will drive or ride in a cutting edge vehicle in order to experience the evolution of vehicles to include Connected and Automated capabilities and our innovative approach to evaluating both driver and vehicle performance.

For all demonstrations, please arrive at the shuttle launch area at the back of the exhibit floor at least 30 minutes before your demonstration time to allow for transportation.

Showcases continues on next page >

Human-Friendly Mobility Supporting Child Safety

ZONE 5

AISIN SEIKI Co., Ltd. AISIN AW Co., Ltd. ADVICS Co., Ltd.

To support the safety of children in crosswalks and parking lots of shopping malls and around the home.

1. Automatically starting and stopping the demo car when it detects a child moving behind the vehicle.
2. Automatically stopping the demo car when it detects children trying to cross a street in the crosswalk, when the driver is not paying attention.
3. Automatically parking the demo car in a difficult parking.

Interactive Travel-Time and Detection Demonstration

ZONE 5

Kimley-Horn and Associates, Inc.

Kimley-Horn will be hosting a demonstration of our travel-time application. Participants will use the app to track velocity and travel time while riding a bike on a set course. A leaderboard will display real-time results of the participants.

Advanced HMI Management with Connectivity

ZONE 5

DENSO Corp.

With the onset of the connected vehicle, DENSO will be showcasing how two vehicles can seamlessly communicate using dedicated short-range communications (DSRC), as well as 4G LTE communications. DENSO's advanced Human Machine Interface (HMI) cockpit system will then determine how, when and where to safely display this information to the driver.

MMITTS (Multi-Modal Intelligent Traffic Signal System) Demonstration

ZONE 5

Econolite Group, Inc., University of Arizona, Savari Networks, and Arizona's Maricopa County DOT SMARTDrive Program

Econolite Group, Inc., University of Arizona, Savari Networks, and Arizona's Maricopa County DOT SMARTDrive Program are proud to demonstrate the MMITSS, a multi-modal priority signal control system in which several priority requests from varying modes of transportation (e.g. emergency vehicles, public transit and pedestrians) can be safely accommodated simultaneously.

- Board the "Transit" demo vehicle
- See multiple priority vehicles approach the intersection simultaneously
- MMITSS safely prioritizes vehicle requests using Connected Vehicle applications

Participants disembark at the demo intersection to cross the street with the assistance of SmartCross — a smartphone-activated pedestrian walk request app.

Demonstration Schedule & Duration: Once an hour, for 20 minutes

Showcases at Atwater Parking Lot

A Future for Smart Energy and Transportation: Wireless Automotive Technology Solutions

ATWATER PARKING LOT

NextEnergy, Qualcomm Incorporated

NextEnergy in Midtown Detroit will demonstrate ITS technologies for advanced charging, connected infrastructure and vehicle communications:

Attendees will experience the latest wireless automotive technologies from Qualcomm — the world's largest provider of mobile and wireless technologies. Qualcomm will demonstrate two automotive technologies. Firstly, Qualcomm Halo™, Wireless Electric Vehicle Charging technology which offers a convenient solution for charging EVs and Plug-in Hybrid Electric Vehicles (PHEV). Secondly, Qualcomm will showcase the benefits of Dedicated Short-Range Communications (DSRC) technologies in vehicle to pedestrian communication systems.

Don't forget to also sign-up for the other demos at NextEnergy!

Shuttle transfer at Atwater Parking Lot.

A Future for Smart Energy and Transportation: Smart Connected Vehicles

ATWATER PARKING LOT

NextEnergy, Chrysler Group LLC

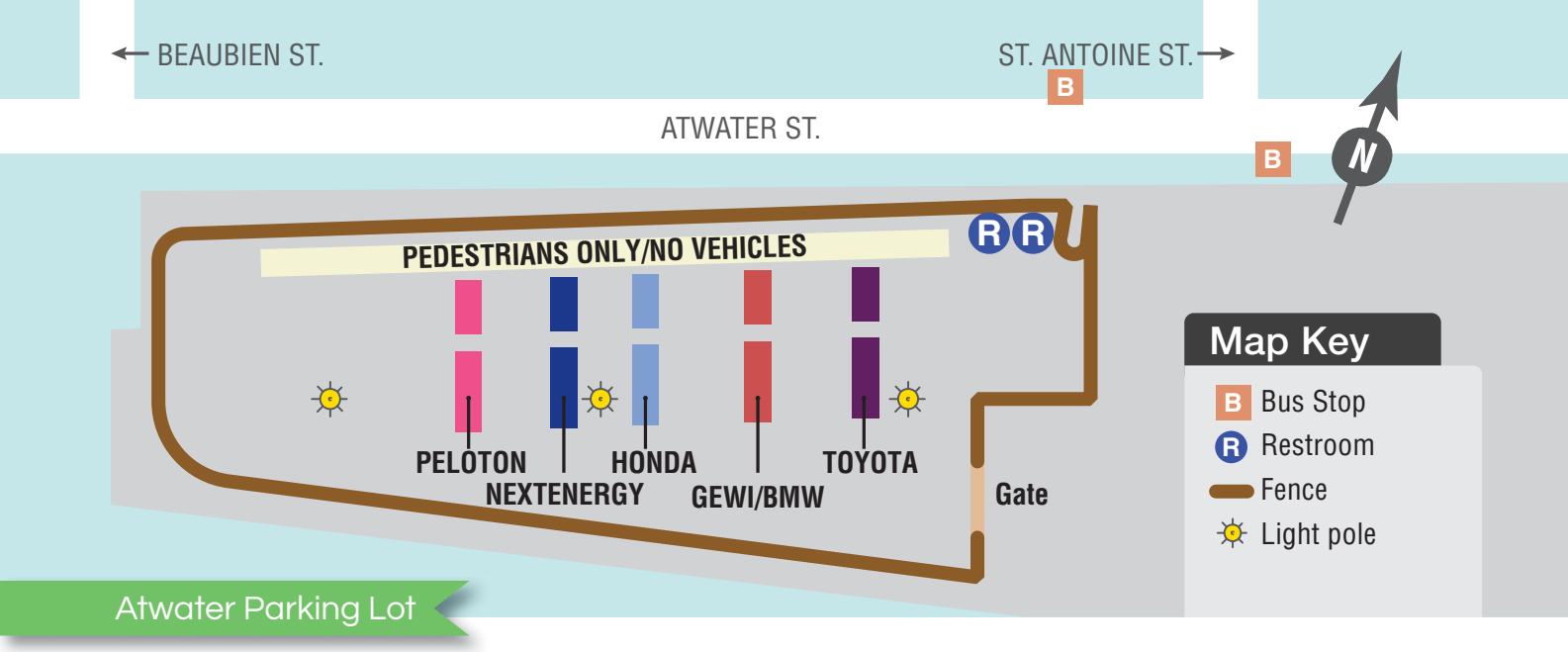
NextEnergy in Midtown Detroit will demonstrate ITS technologies for advanced charging, connected infrastructure and vehicle communications:

Attendees will experience how vehicles may one-day "talk" with homes and charging stations to access and exchange energy with the most appropriate source available at that moment.

Hands-on demonstrations featuring a Fiat 500e electric vehicle will highlight the potential benefits of future energy-management strategies.

Don't forget to also sign-up for the other demos at NextEnergy!

Shuttle transfer at Atwater Parking Lot.



Automated Highway Driving Assist

ATWATER PARKING LOT

Toyota Motor Corporation

Participants will experience a new highway driving support system that intelligently perceives the highway environment and appropriately balances driver and support system control.

This in-car experience will be shown on public highways where participants can feel the performance and also monitor the system using in-car displays. This will be a 30 minute in-car experience on public roads.

A limited number of on-site registration slots are available.

Please visit Toyota's kiosk in the Cobo Center Technical Showcase Demonstration Launch area to check availability.

Automated Highway Driving System

ATWATER PARKING LOT

Honda Atwater Demo

Honda will showcase an automated research vehicle capable of performing complex maneuvers on the public highways near the COBO conference center. Participants are invited to experience the future and feel the ease of automated driving.

VMS2Dash — Bringing Variable Message Signs to Your Dashboard

ATWATER PARKING LOT

GEWI and BMW

VMS Data from Michigan DOT is collected by GEWI and delivered to the BMW Navigation system in real-time to alert drivers of conditions that may impact travel on the road ahead. The demonstration relies on deployed technologies and showcases a pragmatic approach to realize V2I applications already today.

Highway Truck Platooning for Safety and Efficiency

ATWATER PARKING LOT

Peloton Technology, DENSO, Meritor WABCO

A pair of tractor-trailers equipped with Peloton truck platooning systems, DENSO DSRC radios and Meritor WABCO safety systems will travel in tandem on I-75, showcasing an emerging ITS solution for trucks operating on appropriate multi-lane divided highways. Peloton Driver-Assistive Truck Platooning (DATP) systems integrate active safety systems, wireless communications and cloud-based monitoring to make trucks safer, enhance telematics, and enable pairs of trucks to form aerodynamic platoons—yielding robust fuel, maintenance and management savings. Ride-along demonstrations of this Cooperative Adaptive Cruise Control system will begin at the Atwater Lot. Video at Demo tent will display truck data and other highlights.

For all demonstrations, please arrive at the shuttle launch area at the back of the exhibit floor at least 30 minutes before your demonstration time to allow for transportation.

Social Events

Opening Ceremony

Sunday, September 7, 5:00 p.m. – 6:30 p.m. | **Cobo Grand Ballroom**

Sponsored by GM

The Opening Ceremony will be held Sunday at the Cobo Center Grand Riverview Ballroom. General Motors CEO Mary Barra will provide the opening keynote speech and address the changing transportation environment around the world as well as the rapidly evolving technology of connected, autonomous, and electric vehicles. The event will also feature exciting special entertainment and several awards.

Keynote Speaker
Ms. Mary Barra, CEO, General Motors Co., USA

Invited Speakers:
Mr. James Barbaresso, Chairman, Detroit Organizing Committee, USA

Mr. Mike Finney, President and CEO, Michigan Economic Development Corporation (MEDC), USA

Mr. Michael Duggan, Mayor, City of Detroit, USA

Mr. Eddie Francis, Mayor, City of Windsor, Canada

Mr. Carl Levin, United States Senator, Michigan, USA

Mr. Anthony Foxx, Secretary, U.S. DOT, USA (Invited)

Mr. Jean Mesqui, Chairman, ERTICO Supervisory Board, ERTICO-ITS Europe, Belgium

Representative from Ministry of Internal Affairs and Communications, Japan

Mr. Kirk Steudle, Director, Michigan DOT, USA

Mr. Scott Belcher, President and CEO, ITS America, USA

Closing Ceremony

Thursday, September 11, 3:30 p.m. – 5:00 p.m. | **Cobo Grand Ballroom**

The Closing Ceremony will attract attendees by taking a look back over the unforgettable 5 days, focusing the most important events and congratulating the winners of Best Papers Awards, and looking on the future World Congresses events with "Passing the Globe" ceremony. The Grand Mobi award, for the business venture that has the greatest impact on improving quality of life, addressing human rights, improving safety and revitalizing the environment and economy of communities and regions through sustainable transportation/New Mobility will also be presented at the Closing Ceremony.

Grand Mobi. This award is for the business venture that has the greatest impact on improving quality of life, addressing human rights, improving safety and revitalizing the environment and economy of communities and regions through sustainable transportation/New Mobility.

Best Paper Awards will be presented at the Closing Ceremony.

Keynote Speaker
To be Announced

Invited Speakers:
Mr. Kirk Steudle, Director, Michigan DOT, USA

Mr. Jim Barbaresso, Chairman, Detroit Organizing Committee, USA

Mr. Scott Belcher, President and CEO, ITS America, USA

Dr. Peter Sweatman, Chairman, International Program Committee, USA

Mr. Michel Labardin, Vice-President in charge of Transport, Urban Community of Bordeaux, France

Mr. Mathieu Hazouard, Regional Advisor, in charge of research, innovation, and competitive clusters, Aquitaine Regional Council, France

Mr. Zoran Stančič, Deputy Director General, DG CONNECT, European Commission, Belgium

Ms. Florence Ghiron, President of TOPOS Aquitaine and President of the Bordeaux Organizing Committee, TOPOS Aquitaine, France

Brian Negus, Chair of the 2016 WC Melbourne Organizing Committee and President of ITS Australia, Australia

Ambassador Caroline Millar, Deputy Head of Mission, Australian Embassy, Australia

Mr. Michael De Santis, Chairman, ITS Canada, Canada

Mr. Claude Carette, Director, Infrastructure, Roads and Transportation Services, City of Montreal, Canada

Mr. Hermann Meyer, CEO, ERTICO-ITS Europe, Belgium

Mr. Hajime Amano, President and CEO, ITS Japan, Japan

Opening Reception

Sunday, September 7, 4:00 p.m. – 5:00 p.m.

Cobo Grand Ballroom Foyer

Enjoy a networking opportunity prior to the Opening Ceremony. Hors d'oeuvres will be served.

Sponsored by TOYOTA

Price: Included as part of the World Congress Registration.

ITS America Leadership Circle Dinner

Sunday, September 7, 7:00 p.m. – 9:00 p.m.

The Detroit Athletic Club

The ITS America Leadership Circle will convene for a closed reception and dinner at the ITS World Congress. For more information about this invitation only event taking place at the Detroit Athletic Club, please contact Caroline Kotila at ckotila@itsa.org.

Hosted by ITS AMERICA LEADERSHIP CIRCLE

Exhibitors Welcome & Regional Receptions

Monday, September 8, 4:30 p.m. – 6:00 p.m.

Cobo Exhibit Hall

This important networking opportunity takes place in the Cobo Center's Exhibit Hall where international exhibitors, the regional and national ITS associations, and Michigan host community will welcome attendees and offer them an opportunity to visit, network, and engage one another as part of the global ITS stakeholder community.

Price: Included as part of the World Congress Registration.

Motown Dinner Cruise

Monday, September 8, Board Time: 6:30 p.m., Cruise Time: 7:00 p.m. – 10:00 p.m.

Join us for an unforgettable evening of networking and fun. You will board the Infinity, a 138' yacht, at the Detroit Port Authority. Our three-hour journey includes a sumptuous dinner, open bar, live Motown band and fabulous views of the Detroit and Windsor skylines.

Hosted by: Macomb County

Price: $125.00

Meal(s) Provided: Dinner

Participant Requirements: 300 maximum

"Michigan Festival," presented by ITS Michigan

Tuesday, September 9, 4:00 p.m.

Belle Isle

The Flavor of Michigan Networking event is an opportunity for World Congress attendees to witness firsthand what this great state has to offer. The event is centered around Michigan Wine, Michigan Beer, Michigan Food, and Michigan music located on beautiful Belle Isle at the historic Belle Isle Casino facility. Take the time to network with other attendees and friends while enjoying Michigan's finest, all in one spot.

Hosted by MDOT Michigan Department of Transportation, ITS-Michigan Intelligent Transportation Society, ITS AMERICA

Price: Included as part of the World Congress Registration.

Meal(s) Provided: Food and drink

Investor Matching Reception

Wednesday, September 10, 5:00 p.m. – 6:30 p.m.

Crowne Plaza® Detroit Downtown Riverfront Hotel

Taking place on the top floor of the Crowne Plaza® Detroit Downtown Riverfront Hotel, the Investor Matching Reception is an invitation only event where entrepreneurs and emerging young companies will be able to connect and network with the industry's leading stakeholders and premier financial and strategic investment firms.

Hosted by

FONTINALIS PARTNERS, RAYMOND JAMES®, ECONOLITE Group, Inc.

Price: Invitation Only

Detroit Gala

Wednesday, September 10, 6:00 p.m.

Cobo Grand Ballroom

A longstanding tradition from prior World Congresses, the Detroit Gala will showcase the recently renovated Cobo Center and its dramatic view of the Detroit River and the Windsor skyline. The gala will incorporate as its central theme the internationally known music and entertainment of Detroit. Hors d'oeuvres will be served.

Price: $100 for students, accompanying persons, and press registrants. Otherwise, included as part of World Congress Registration.

Meal(s) Provided: Hors d'oeuvres

Ancillary Events

11th AASHTO International Day

Sunday September 7, 8:00 a.m. – 12:00 p.m. | **Cobo 140 F**

Sponsored by AASHTO

The American Association of State Highway and Transportation Officials will host the 11th AASHTO International Day in conjunction with the 21st ITS World Congress on September 7th, 2014. This year's Day will focus attention on implementation and include the private sector advancements in vehicles, communications and autonomous vehicles.

FOT-Net Data Workshop on Data Sharing — Organized in Collaboration with the U.S. DOT

Sunday, September 7, 9:00 a.m. – 3:30 p.m. | **Cobo 140 A**

Workshop

This workshop aims to exchange information on FOTs and data sharing between the three regions (Europe, Asia-Pacific and North America), discuss problems and solutions for data sharing and provide recommendations for a global data sharing framework.

In this workshop we will have discussions in small groups, addressing either more technical questions or more organizational questions. This workshop is meant for everyone interested in data sharing, people working in FOTs, decision makers in private and public organizations, data experts and transport researchers.

Background

FOT-Net Data is a Support Action funded by the European Commission, networking Field Operational Tests (FOT). FOT-Net Data develops and promotes a framework for sharing data, a framework to describe available datasets, recommendations for data protection, strategies to facilitate data sharing and awareness about the value of data sharing.

Questions to be addressed:

- What are the solutions to the main privacy and data protection issues?
- What are good practices in storage of data and content in project documents, so that data can be shared?
- What are good examples of research questions re-using FOT and probe data?
- Under what conditions can data be re-used and what are possible business models?

Meal(s) Provided: Breakfast to be served at 8:30 a.m.

For more details and the agenda go to **www.fot-net.eu**

For more information please contact: Yvonne Barnard, ERTICO – ITS Europe, Tel: +32 2 400 07 12, E-mail: **info@fot-net.eu**

Connected Vehicle Program 101

Sunday, September 7, 9:00 a.m. – 1:00 p.m. | **Cobo 142 A/B**

First launched in 2013, the U.S. DOT's Joint Program Office Professional Capacity Building Program is offering an updated workshop on connected vehicles. In this three hour program, instructors will describe the connected vehicle concept, provide the latest on connected vehicle research, report on the model deployment in Ann Arbor, and offer insights on the National Highway Traffic Safety Administration (NHTSA) initiative to begin a V2V rulemaking process and ultimately plans to require the life-saving technology to be installed in all new cars and light trucks. Registration is required.

Price: $40.00

IBEC Workshop: Evaluation of Connected (Vehicles and Infrastructure) and Autonomous Vehicles

Sunday, September 7, 9:30 a.m. – 1:00 p.m. | **Cobo 142C**

The connected world of vehicles and infrastructure promises to revolutionize mobility services. Understanding the potential of these innovations and how they would operate in a real-world environment is critical for policy development, investment strategies, network operations and management, driver education and legal and regulatory aspects. The purpose of this workshop is to explore and understand the essential evaluation aspects of connected and autonomous vehicles. Speakers from around the world will share their insights and ample time will be allowed for discussion.

ITS America Forum Showcase — Performance Measures

Sunday, September 7, 12:30 p.m. – 2:30 p.m. | **Cobo 320**

Sponsored by: ITS America Coordinating Council

The Forum Showcase is an opportunity for the ITS America Forums to share information regarding activities on a crosscutting area. One of the most important crosscutting areas at the moment is performance management. Performance management has become a central theme of federal legislation and a vital element in local transportation programs. This event will provide an opportunity to understand the state of the practice with respect to performance management at state, local and federal levels. Prominent speakers from federal, state and metropolitan planning organizations, with experience and expertise in the area will present their perspectives on performance measurement and performance management.

A key theme for the event will be the migration from simply measuring performance to taking action based on performance information. As management experts say "if you can't measure it you can't manage it"and in transportation performance management we could also add "if you're only measuring it you're still not managing it". The forum will also feature a keynote speaker from Teradata, a major supplier of big data solutions. This speaker will bring the perspective from beyond transportation with respect to the application of big data in other business sectors and how value is extracted from performance data. This will be a lively, high-energy event delivering a rich stream of information on current best practices and performance management. This will invoke an interesting discussion on where we are and where we need to be with respect to results driven investment programs for Intelligent Transportation Systems.

Legislative Breakfast

Monday, September 8, 7:30 a.m. – 8:30 a.m. | **Cobo 140 A**

Sponsored by QUALCOMM

The current surface transportation bill, MAP-21, expires on September 30, 2014, challenging Congress and the Obama Administration to come up with a long-term sustainable funding source for the nation's transportation system. In addition, policymakers are continuing to examine ways to strengthen federal transportation programs to improve safety, mobility, efficiency and a state of good repair. The Legislative Breakfast will provide World Congress attendees with the opportunity to hear from Members of Congress with jurisdiction over transportation and technology issues who will discuss their views on the most effective solutions for financing transportation and advancing the research and deployment of ITS technologies to create a safer, smarter, more efficient and sustainable transportation future.

(Invitation Only)

State Chapters Strengthening Workshop

Monday, September 8, 9:30 a.m. – 1:30 p.m. | **Cobo 111 A/B**

The 27 state and regional chapters of ITS America meet every year at ITS America hosted Annual Meetings and World Congresses to conduct their annual business meeting and hold a strengthening workshop that features the latest on federal and state transportation programs and best practices on non-profit management. Participants include a mix of public and private sector ITS professionals actively engaged in chapter activities. Lunch will be provided at the workshop. Registration is required. The first attendee from a chapter is free; additional attendees from a chapter are asked to pay the $25.00 fee.

Price: $25.00 after first attendee per chapter

Transportation Management Forum

Monday, September 8, 4:30 p.m. – 5:30 p.m. | **Cobo 111 A/B**

Sponsored by: ITS America Coordinating Council

ITS America's Transportation Management Forum will address the challenges of deploying, operating and maintaining transportation systems focused on the movement of people in both urban and rural applications of transportation systems. This will include attention to the lessons learned between implementing agencies and industry that will help all stakeholders identify ways of employing new technologies to improve the efficiency of transportation management systems, increase system reliability, and reduce the overall cost of operations and management.

Chair: Barry Einsig, Cisco **Vice-Chair:** Elizabeth Birriel, Florida DOT

Related Events:

- AM05 – Transportation Management Centers — Past, Present, and Future | Tuesday, September 9, 10:30 a.m. – 12:00 p.m.
- AM11 – Private Consumer Applications and the Growing Request to Interface to Public Traffic Systems | Wednesday, September 10, 10:30 a.m. – 12:00 p.m.

Ancillary Events continues on next page >

Safety Forum

Monday, September 8, 6:00 p.m. – 7:00 p.m. | **Cobo 115 A**

The ITS America Safety Forum promotes the research and deployment of safety-related Intelligent Transportation Systems applications and provides stakeholder guidance on the development of national policies and safety standards.

Chair: Myra Blanco, Virginia Tech Transportation Institute **Vice-Chair:** Paul Avery, Southwest Research Institute

Related Events:

- AM17 – ITS Improvements that Lead to Safety: The State Perspective | Thursday, September 11, 8:30 – 10:00 a.m.
- AM18 – Human Factors Leading to Safe and Connected Automation | Thursday, September 11, 10:30 a.m. – 12:00 p.m.

ITS America Business Meeting and Awards Breakfast

Tuesday, September 9, 7:30 a.m. – 8:30 a.m. | **Cobo 140 A**

ITS America will offer its annual remarks on the state of Intelligent Transport Systems and on current matters of interest at ITS America. Also on the program will be presentation of ITS America's ITS Hall of Fame Awards, the Best of ITS Awards, the winner of the Student Essay competition sponsored by the Southwest Research Institute, and the Outstanding ITS America State Chapter Awards. All are welcome to attend this continental breakfast to celebrate the latest happenings in the field of ITS and those who are helping to lead the way.

Talent Networking Event

Tuesday, September 9, 2:00 p.m. – 5:00 p.m. | **Belle Isle**

Sponsored by DENSO

DENSO, the Michigan Department of Transportation (MDOT), the Michigan Economic Development Corporation (MEDC), Square One Education Network, and ITS America are partnering up to provide young professionals, graduate, and undergraduate students with a night of networking. Bring your resume and join us for the chance to rub elbows with some of the companies represented by staff at all levels of their organization at the forefront of innovation in transportation. The event will be held at the epicenter of the state-of-the-art demonstrations taking place on Belle Isle as part of the Technology Showcase for the Intelligent Transportation System World Congress. Shuttle service will be provided from Cobo Center to Belle Isle. Free food, drinks, and admission.

Commercial Vehicle & Freight Mobility Forum

Tuesday, September 9, 4:30 p.m. – 5:30 p.m. | **Cobo 110 B**

Sponsored by: ITS America Coordinating Council

The mission of the Commercial Vehicle and Freight Mobility Forum is to provide the transportation community with a forum that champions safety, commerce, security, and policy for commercial vehicles and freight movement through the advancement of Intelligent Transportation Systems.

Chair: Rick McDonough, New York State DOT **Vice-Chair:** John Woodrooffe, University of Michigan Transportation Research Institute

Related Events:

- AM03 – Commercial Vehicle and Freight Movement Technologies for Safety, Efficiency, Mobility, and Enforcement | Monday, September 8, 3:00 – 4:30 p.m.
- AM12 – Future of Fleet Automation | Wednesday, September 10, 1:30 – 3:00 p.m.

Cross-Cutting Issues Forum

Sponsored by: ITS America Coordinating Council

The Cross-Cutting Issues Forum initiates, executes, and promotes member-driven projects associated with the broad scope of ITS that crosses two or more of ITS America's "outcome" focused Forums. Interest areas include, Systems Engineering, Training and Education, Research, Benefits, Evaluation and Costs, Surface Transportation Weather, Data Management, and Electronic Payment

Chair: Bruce Eisenhart, Consensus Systems Technologies **Vice-Chair:** Bob McQueen, The 0Cash Company

Related Events:

- AM14 – Autonomous Vehicles: Savior of the Western World or an Over-Hyped Version of new Cars? | Wednesday, September 10, 3:30 – 5:00 p.m.
- AM20 – New Urban Mobility: Is This the Death of Public Transit as we Know it? | Thursday, September 11, 1:30 – 3:00 p.m.

Sustainability Forum

Tuesday, September 9, 4:30 p.m. – 5:30 p.m. | **Cobo 111 A/B**

Sponsored by: ITS America Coordinating Council

The Sustainable Transportation Working Group collects and evaluates data to better understand the relationships between transportation systems, traveler behavior, and climate change; supports research and the identification of existing and emerging technologies to address the relationship between transportation and climate change; and informs the public, policymakers and lawmakers about the capability of transportation technologies, operational strategies, funding mechanisms, and integrated traffic management systems to affect traveler behavior and/or reduce fuel consumption.

Chair: Lou Neudorff, CH2M Hill **Co-Chair:** John Lower, ITERIS

Related Events:

- AM01 – Sustainable Transportation Performance Measures: Best Practices | Monday, September 8, 10:30 a.m. – 12:00 p.m.
- AM16 – The Sharing Economy and Shared Mobility | Thursday, September 11, 8:30 – 10:00 a.m.

"Ask NHTSA" Breakfast

Wednesday, September 10, 7:30 a.m. – 8:30 a.m. | **Cobo 140 A**

National Highway Traffic Safety Administration (NHTSA) Acting Administrator David J. Friedman and other senior NHTSA officials will participate in a unique "Ask NHTSA" breakfast session to discuss the agency's top research and policy priorities for advancing innovative technologies to reduce highway fatalities and injuries, from vehicle automation and vehicle-to-vehicle (V2V) communications to distracted driving and agency enforcement activities. NHTSA officials will also take questions from World Congress attendees about these and other topics of interest, such as V2V and the 5.9 GHz band and opportunities to advance vehicle and highway safety in the surface transportation reauthorization bill.

Moderator
T. Russell Shields, Chair, Ygomi, LLC, USA

Speakers
NHTSA Deputy Administrator David J. Friedman
Daniel Smith, Senior Associate Administrator, Vehicle Safety, NHTSA
Nathaniel Beuse, Associate Administrator, Vehicle Safety Research, NHTSA
Tim Johnson, Director, Crash Avoidance and Electronic Controls Research, NHTSA

Lunch and Panel Discussion: Building the Future of Transportation through the Global Advancement of Women

Wednesday, September 10, 12:00 p.m. – 1:30 p.m. | **Cobo 140 A**

WTS International connects the industry with the highest levels of women leaders in transportation. WTS delivers inclusive opportunities for a broad mix of professionals and thought leaders, including mid-to-executive level professionals, top government officials, policy drivers, and the next generation of innovators — students, to network at the highest levels of the transportation industry and acquire knowledge that will transform the industry through policy and innovation at all levels of both the public and private sectors. ITS World Congress attendees are invited to join WTS International at this special lunch and panel discussion presentation that will provide a forum for exploration of top industry issues, highlighting the advancement of women in the transportation, ITS, and technology industries. The panel will be comprised of five of the most senior-level women of both the public and private sectors, including Anne Ferro, President and CEO, American Association of Motor Vehicle Administrators; Polly Trottenberg, New York City DOT Commissioner; Paula Hammond, Senior Vice President at Parsons Brinckerhoff and former Secretary of Transportation for the State of Washington; Beverly Scott, Ph.D., CEO, Rail & Transit Administrator, MBTA; and Theresa Vevea, Director of Customer Service, American Airlines.

Hosted by WTS — *Advancing Women in Transportation*

Price: $40.00

Innovation Breakfast: It's An App World

Thursday, September 11, 7:30 a.m. – 8:30 a.m. | **Cobo 140 A**

Chris Thomas, Partner in the Venture Capital Firm, Fontinalis has been asked to moderate a group of successful start-up company CEOs that will discuss how they got started, where they have gotten their funds, how they have attracted attention in the crowded transportation space. Panelists will have ten minutes each for their presentations. Alfredo Escriba will offer welcome comments and an overview of Schneider and introduce the panel moderator and speakers. **(Invitation Only)**

Guest Tours

Shopping at Somerset



Tuesday, September 9, 10:00 a.m. – 4:00 p.m.

The Somerset Collection is the Detroit area's premier shopping experience. An upscale, luxury shopping mall located in Troy, Michigan, Fodor's travel guide describes the Somerset Collection as one of the top shopping experiences in the United States. The tour will conclude with a 3:00 p.m. departure from the Somerset Collection, returning to the Detroit Marriott at the Renaissance Center by bus around 4:00 p.m.

Price: $25.00
Transportation: Provided
Participant Requirements: 50 minimum

Please go to **www.thesomersetcollection.com** for more information on the Somerset Collection.

Detroit Institute of Arts

The Detroit Institute of Arts, located in Midtown Detroit, Michigan, has one of the largest, most significant art collections in the United States. In 2003, the DIA ranked as the second largest municipally owned museum in the United States, with an art collection valued at more than one billion dollars. With over 100 galleries, it covers 658,000 square feet; a major renovation and expansion project completed in 2007 added 58,000 square feet. The museum building is highly regarded by architects. The original building, designed by Paul Philippe Cret, is flanked by north and south wings with the white marble as the main exterior material for the entire structure. It is part of the city's Cultural Center Historic District listed in the National Register of Historic Places.

Please go to **www.dia.org** for more information on the Detroit Institute of Arts.

Henry Ford Museum

The Henry Ford is a large indoor and outdoor history museum complex and a National Historic Landmark in the Metro Detroit suburb of Dearborn, Michigan, USA. Named for its founder, the noted automobile industrialist Henry Ford, and based on his desire to preserve items of historical significance and portray the Industrial Revolution, the property houses a vast array of famous homes, machinery, exhibits, and Americana. The collection contains many rare exhibits including John F. Kennedy's presidential limousine, Abraham Lincoln's chair from Ford's Theatre, Thomas Edison's laboratory, the Wright Brothers' bicycle shop, and the Rosa Parks bus.

Please go to **www.thehenryford.org** for more information on the Henry Ford Museum.

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Technical Tours

Buses will depart from COBO Center Atwater atrium entrance. Please arrive at the bus 15 minutes prior to departure.

Monroe, Michigan PrePass Operations

Tuesday, September 9, 10:00 a.m. – 2:00 p.m. and 11:00 a.m. – 3:00 p.m.

PrePass is a national deployment of ITS technology that allows safe and qualified commercial vehicles to bypass state weigh stations or inspection facilities. These carriers are prescreened and receive bypass or pull in signals via a transponder located in the cab of the truck. The Michigan State Police deployed PrePass at its Monroe, Michigan northbound I-75 truck inspection station in January 2010. The technology, funded by HELP Incorporated, the non-profit public/private partnership, includes both weigh-in-motion (WIM) integration with an IRD WIM system and compliance readers to ensure proper bypass compliance. To date, trucks that have been e-cleared and pre-qualified for PrePass have completed 915,734 safe bypasses at Monroe, saving motor carriers more than $7.9M. Also on display at Monroe will be the 360SmartView electronic screening system. 360SmartView provides officers with additional tools to make informed, data-driven inspection selection decisions. Utilizing license plate and DOT readers, officers can screen all commercial vehicles on over 20 safety and compliance factors. Michigan plans to expand its PrePass operations at Monroe with renovations to the southbound facility expected to begin in summer 2014. HELP Inc.'s PrePass service is North America's largest vehicle-to-infrastructure program, with over 470,000 trucks qualified to bypass 304 operational sites in 31 states.

Price
$65.00

Transportation
Provided

Participant Requirements
20 maximum each tour

Meal(s) Provided
Yes

Safety Pilot Model Deployment (SPMD)

Wednesday, September 10, 8:00 a.m. – 12:00 p.m.

Participants will be given an exclusive "back lot" tour of the largest connected vehicle test bed in the world at UMTRI in Ann Arbor. While on the bus, participants will learn about SPMD — everything from the vehicle and infrastructure technology utilized in the pilot, to discussion about participants' experience. Upon arrival, participants will be given a deep dive into the nearly 30 billion basic safety messages gathered to date, get a sneak-peek of the test facility, and learn about exciting "next steps," including the Ann Arbor Connected and Automated Vehicle Network, a custom-designed integrated network of 2,000 connected, coordinated, automated, and shared vehicles.

Price
$50.00

Hosted by
UMTRI
University of Michigan

Transportation
Provided

Participant Requirements
50 maximum

Southeast Michigan Transportation Operations Center (SEMTOC) Tour

Wednesday, September 10, 9:00 – 11:30 a.m.

SEMTOC is the hub of ITS technology applications at the Michigan DOT. It is a world-class traffic management center where staff oversees a traffic monitoring system composed of 400 freeway miles instrumented with more than:

- 270 Closed Circuit TV Cameras
- 95 Dynamic Message Signs
- 200 Microwave Vehicle Detection Sensors in conjunction with Probe Traffic Detectors.

SEMTOC uses an integrated software system that includes device control, incident management functions, ATIS capabilities, and a complex hybrid communications system. SEMTOC facilitates area-wide management of traffic through shared connections with The Road Commission for Oakland County Traffic Operations Center and local media partners.

Price
$50.00

Hosted by
SEMTOC

Transportation
Provided

Participant Requirements
25 maximum

City of Windsor Traffic Operations Centre

Wednesday, September 10, 9:00 a.m. – 12:00 p.m.

The Traffic Operations Centre houses the Advanced Traffic Management System (ATMS) and the Signals Division. The City is currently converting the entire communications system to high-speed IP communications and deploying hundreds of new VIVDS to facilitate next-generation traffic control and management applications including adaptive control, incident management, and arterial performance reporting. The new ITS technologies will facilitate smooth traffic flows between the U.S. and Canada, ensuring economic prosperity at the most utilized border crossing. Functionalities of the Centre and the ATMS also include Congestion Management at the tunnel border crossing caused by border delays.

Price
$50.00

Hosted by
City of Windsor

Transportation
Provided

Participant Requirements
25 maximum

Macomb County Communications and Technology Center (COMTEC)

Tuesday, September 9, 1:00 p.m. – 2:30 p.m.

Wednesday, September 10, 11:00 a.m. – 2:00 p.m.

The Macomb County Communications and Technology Center is a brand new, $11 million, state-of-the-art operations and communications center that is the first of its kind in Michigan. The 25,000 square-foot center combines communication between several Macomb County departments such as the Sheriff's Office dispatch, the Roads Department Traffic Operations Center, the Information Technology Data Center and the Emergency Management & Communications Department.

Price
$65.00

Hosted by
Macomb County

Meal(s) Provided
Yes

Transportation
Provided

Participant Requirements
40 maximum

OnStar Command Center

Monday, September 8, 10:00 a.m. – 11:30 a.m. and 2:30 p.m. – 4:00 p.m.

Tuesday, September 9, 10:00 a.m. – 11:30 a.m.

Wednesday September 10, 9:30 a.m. – 11:00 a.m. and 2:30 p.m. – 4:00 p.m.

Thursday, September 11, 9:30 p.m. – 11:00 a.m.

The OnStar Command Center, located inside the General Motors World Headquarters at the Renaissance Center, is a 24/7, state-of-the-art operations hub where staff members coordinate the delivery of OnStar services to our nearly 7 million subscribers. The Command Center team uses crucial business planning tools to ensure OnStar call centers are properly staffed and maintained, calls are routed properly, and business metrics are met. Staffers also monitor real-time weather conditions, current events and crisis situations that could impact subscribers across the United States, Canada and Mexico.

Price
$20.00

Hosted by

GM

Transportation
Within walking distance

Participant Requirements
50 maximum each tour

Awards

For detailed information on all of the 2014 ITS World Congress and ITS America awards, please visit **www.itsworldcongress.org/awards**.

World Congress Hall of Fame Awards

The World Congress Hall of Fame awards recognize the highest standards in achievement from the Americas, Europe and Asia-Pacific in the high-tech transportation community across the categories of Industry, Local Government and personal Lifetime Achievement. Recipients are selected annually from each region based on their leadership and performance in the transportation technology arena.

The Lifetime Achievement Award will be presented at the Opening Ceremony.

The Government Award will be presented at the Plenary 1.

The Industry Award will be presented at the Plenary 2.

Best of ITS Awards

ITS America's "Best of Intelligent Transportation Systems (ITS) Awards," annually recognizes the best and brightest of the high-tech transportation community. This is a unique opportunity to be recognized at the premier ITS event of the year in the Americas amongst thousands of public sector and transportation industry professionals, policymakers, and press.

This highly competitive program aims to distinguish organizations whose projects have demonstrated specific and measurable outcomes and exemplified innovation by establishing a "new dimension" of performance.

Award categories for 2014 include:

- Best New Innovative Product, Service or Application
- Best New Innovative Practice, and
- Best New Innovative Startup Company.

The Best of ITS Awards will be presented at the ITS America Award Breakfast/Business Meeting.

ITS America Hall of Fame Awards

Ann Flemer

Ann has worked in transportation planning, operations, policy and finance at the Metropolitan Transportation Commission, the metropolitan planning organization for the San Francisco Bay Area, beginning as a college intern in 1982 and retiring as Deputy Executive Director, Policy in 2014. Key ITS projects under her direction included the design, deployment, operation and maintenance of TransLink (now Clipper) the single smart card-based fare collection system for the Bay Area's seven major transit systems, the 511 traveler information system covering the nine Bay Area counties, the Take Transit regional online transit trip planning system, and the regional rideshare program.

Larry Yermack

Larry's most significant professional accomplishment is conceiving and creating the E-ZPass electronic toll collection system. In 1991 as tag technology was just appearing, he had the idea that if toll agencies could interoperate, using one common device, the value to the end user would be huge. The challenge was to get independent agencies to work together. His professional resume includes public sector positions such as First Deputy NYC DOT Commissioner working for Ed Koch, CFO of the Triborough Bridge and Tunnel Authority and private sector ones including President of PB Farradyne, a pioneering ITS company.

James Costantino, Ph.D., P.E.

James Costantino's career in government, the private sector, and academia has been focused on coordinating and accelerating research and technology in the transportation sector. In addition to being the initial President and CEO at ITS America, Dr. Costantino held several senior positions at the DOT, overseeing multi-million dollar transportation and technology programs and thousands of employees. Dr. Costantino also served as on active and reserve duty with the U.S. Navy Intelligence Service.

The ITS America Hall of Fame Award will be presented at the ITS America Award Breakfast & Business Meeting.

Student Essay Competition

Sponsored by: SwRI

Monday Plenary

Sponsored by the Southwest Research Institute (SwRI), the Student Essay Competition is designed to encourage student interest and future participation in the development of ITS solutions. The objective of the essay competition is to provide an opportunity for today's transportation and engineering students to apply their knowledge in a thought-provoking and enjoyable competition and to build awareness of ITS as a career path with unlimited potential.

1ST PLACE

Mizanur Rahman

School: Clemson University
Paper Title: A *Dynamic Routing Strategy in a Cooperative Vehicle Environment*

2ND PLACE

Billy Kihei

School: Georgia Institute of Technology
Paper Title: *Sustaining V2V with Software Defined Radio & Modular Computing Architecture*

3RD PLACE

Lacey Kaare

School: Michigan Technological University
Paper Title: *Attitudes and the American Way: Barriers to Fully Automated Vehicles*

(photo credit: Michigan Tech Visual Services)

The Student Essay Awards will be presented at the Interactive Session 01 – Monday, September 8, 10:30 a.m. – 12:00 p.m. – Wayne and Oakland Hall and also at the ITS America Business meeting.

2014 ITS America State Chapter Awards

The ITS America State Chapter Awards are given annually to the State Chapters that have demonstrated a superb level of programming, fostered the highest qualities of leadership amongst members, advocated for ITS solutions at the state and regional levels, and provided outstanding value overall to their membership. ITS America's Board of Directors and State Chapters Council recognizes the Best Outstanding Chapter and the chapter with the greatest growth in its membership each year during a special ceremony at the ITS America Annual Meeting & Exhibition.

The State Chapters Awards will be presented at the ITS America Award Breakfast/Business Meeting.

MobiPrize

Sponsored by: SMART

Monday Plenary

Mobi City Enterprising City/State Award

This award is designed to recognize City/State governments (also regional/provincial) and government owned agency/public enterprise that have demonstrated active efforts to build a culture of innovation and encourage entrepreneurship in sustainable transportation.

Tuesday Plenary

Michigan Mobi: MobiPrize for Michigan Entrepreneurs

This award is for Michigan-based entrepreneurs who, through their innovative New Mobility technology, service, product and/or infrastructure are contributing to the Michigan region and economy.

Closing Ceremony

Grand Mobi

This award is for the business venture that has the greatest impact on improving quality of life, addressing human rights, improving safety and revitalizing the environment and economy of communities and regions through sustainable transportation/New Mobility.

Floorplan


TO DEMO BUSES
EXHIBITOR SERVICE CENTER
SALES OFFICE
21ST WORLD CONGRESS
DETROIT 2014
INTELLIGENT TRANSPORT SYSTEMS
FOOD & BEVERAGE ADDITIONAL SEATING
VILLAGE / DEMO LAUNCH AREA
TEST TRACK
YOUTH CONNECTIONS SHOWCASE 2740
FOOD & BEVERAGE
FOOD & BEVERAGE
MICHIGAN SPOTLIGHT 2032
FOOD & BEVERAGE SEATING
Entrepreneurial Village
Traffic Management Center 2027
ITS AMERICA PAVILION
EXHIBITOR MEETING ROOMS
Meeting Room 8
Meeting Room 7
Meeting Room 6
Meeting Room 5
Meeting Room 4
Meeting Room 3
Meeting Room 2
ENTRANCE
ENTRANCE
REGISTRATION

A-Z Listing

EXHIBITOR	BOOTH
23rd ITS World Congress 2016 Melbourne	1728
Actelis Networks, Inc.	1624
Adaptive Micro Systems Inc.	3020
Advantech	1021
ADVICS	1724
AECOM	2628
Agent Video Intelligence (Agent Vi)	2626
Aisin AW Co. Ltd.	1724
AISIN SEIKI	1724
Aldis Corporation	1413
All Traffic Solutions	824
Alpha Technologies Ltd.	2621
American Signal Company	3021
Applied Information Inc.	826
Applus IDIADA	2407
Arada Systems Inc	2911
Area Wide Protective	2923
Argonne National Laboratory - TRACC	429
ARH	1123
ASTI Transportation Systems Inc.	510
Atkins	1622
Automotive Safety Council	325
Autotalks	2905
Axiomtek	823
Axis Communications Inc.	2626
Battelle	621
BGI - Bordeaux Invest	2015
BLIP Systems	705
Bosch Service Solutions	1024
Campbell Scientific Inc	413
Carrier & Gable	3011
CASE Systems Inc	1027
Cetecom	2015
Cisco	1608
CITEL	2726
Citilog	2924
CLARY Corporation	411
CloudParc	726
Cohda Wireless	1728
Comtrol Corp	422
Consensus Systems Technologies Corp.	1222
Continental Automotive	1001
Core Tec Communications LLC	608
Cubic Transportation Systems	2826
Daktronics, Inc.	1218
Delcan Technologies Inc.	2823
Delphi	2401
DENSO Corporation	2801
Digital Traffic Systems Inc.	821
Drivewyze	3029
Driving Management Systems	3007
Eberle Design Inc.	1121
Econolite Group Inc.	1614
ekin Teknoloji San. ve Tic As	3013
Electro-Matic Products Inc.	305
Emerson Network Power	323
Ericsson	1005
EROAD	1728
ERTICO - ITS Europe - European Pavilion	2015
Esri	818
EtherWAN Systems Inc.	408
eTrans2020	826
FLIR Systems Inc	2618
Florida Department of Transportation	423
Ford Motor Company	425
Forum8 Co. Ltd.	811
Fujitsu Group	1601
G4S Technology	414
General Motors	2007
GEWI	2805
Global Traffic Technologies	2423
Go-Light	2913
Heusch/Boesefeldt GmbH	3023
HNTB	2724
Honda Motor Co. Ltd.	1426
IAV Automative Engineering Inc.	611
Ibeo Automotive Systems GmbH	2608
IBM	2023
Image Sensing Systems	307
IMSA International Municipal Signal Association	2729
Information Display Co	528
Information Logistics Inc.	728
Inrix	601
Integral Blue LLC	3012
Intelematics	1728
Intelight Inc	3018
Intellipower Inc.	1326
Intercomp	415
International Road Dynamics Inc.	1322
International Transport Forum, OECD	522
IP Sens, LLC	2812
Iteris Inc.	2223
ITS America - ITS America Pavilion	1718
ITS Asia-Pacific	2413
ITS Australia	1728
ITS Canada	1206
ITS Finland	2015
ITS France	2015
ITS International	628
ITS Japan	1601
ITS Minnesota	529
ITS Netherlands	2015
ITS Singapore	2613
ITS Sweden	2015
ITS Taiwan	2601
ITS World Congress Bordeaux 2015	2015
Kapsch TrafficCom AG	1418
Kimley-Horn and Associates Inc.	2624
Kistler Instrument Corporation	428
KOMOTO Enterprise Co. Ltd.	521
Korea Pavilion	1011
Korea Road Traffic Authority	2910
Lanner Electronics	2721
Laser Technology Inc.	2623
Lufft USA Inc.	321
M.H. Corbin, Inc.	320
Magna Electronics	623
Marben Products	2908
Mechanical Simulation	708
MG Squared Lowering Systems	3016
Michigan Spotlight - Michigan Economic Development Corporation	2032
Millen Corporation	2015
Ministry of Internal Affairs and Communications	1601
Ministry of Land Infrastructure Transport and Tourism	1601
Miovision Technologies Inc	1228
Mitsubishi Electric Corporation (Japan)	1601
Mitsubishi Electric	405
Mitsubishi Heavy Industries Ltd.	618
Mobile Mark Inc.	1323
Moxa Americas, Inc.	2810
MS2	609
MULTILINK	1129
NEC Corporation	1601
Nedap Identification Systems	2813
Neurosoft	326
NEXCOM	309
NICTA – National ICT Australia	1728
Noptel Oy	2921
NSL-Camera Lowering Systems	2728
NXP Semiconductors	2818
Open Roads Consulting Inc.	2521
Opti-Com Manufacturing Network LLC	509
P3 Group	1324
Panasonic Corporation	1213
Parkmobile USA Inc.	302
Peek Traffic Corporation	1014
Phoenix Contact	523
Proxim Wireless	3015
PTV AG	2523
Q-Free ASA	614
Quanergy Systems Inc.	626
Quantum Inventions	729
QvisionTechnology	1029
RACER Trust	2909
Realtime Technologies	627
Red Lion Controls	923
Renishaw Inc.	508
RideScout	1026
Rohde & Schwarz	2907
SAE International	410
Savari Inc	1424
Schneider Electric	1407
Sensys Networks Inc.	1210
Sensys Traffic AB	2015
SES America Inc.	721
SICE	310
Siemens	2001
Siemens Canada Limited	2605
SIMREX Corporation	629
Skyline Products, Inc.	2418
Skyline Technology Solutions	1226
Smart Microwave Sensors	1223
Southwest Research Institute	1410
SpeedInfo Inc	922
Spirent	318
STEGO, Inc.	2915
Sumitomo Electric Industries Ltd.	1601
Swarco AG	2410
Swedish Transport Administration	2015
TAKATA	808
TASS International	421
Texas Instruments	723
Thinking Highways	3019
TKH Security Solutions - USA	2807
Tokyo Metropolitan Government	1601
Tom Tom	418
Topos Aquitaine	2015
Toshiba Corporation	1601
Toyota Motor Corporation	2018
Traffic Technologies	1728
Traffic Technology International	822
TrafficCast International Inc.	1126
TrafficVision™	1422
Trafficware Ltd.	605
TransCore	2421
Trapeze Group	3009
Transportation Management & Engineering	2722
Traveller Information Services Association (TISA) ASBL	2015
TSS - Transport Simulation Systems Inc.	921
U.S. Department of Transportation (USDOT)	1201
Utimaco Inc.	1023
UTMS Society of Japan	1601
Vaisala	2808
VALEO	2608
Vector CANtech Inc.	327
Vehicle Information and Communication System Center	1601
Vendeka Information Technologies	313
Verizon	814
Ver-Mac	306
Versilis Inc	2723
Vicomtech - IK4	3008
Virginia Tech Transportation Institute (VTTI)	1328
Visteon Corporation	801
VITRONIC Machine Vision	607
VIVOTEK	322
Vizzion	924
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Adaptive Micro Systems Inc.	3020
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AECOM	2628
Aldis Corporation	1413
ARH	123
Atkins	1622
Axiomtek	823
BLIP Systems	705
Carrier & Gable	3011
CloudParc	726
Comtrol Corp	422
Cubic Transportation Systems	2826
Delcan Technologies, Inc.	2823
Econolite Group, Inc.	1614
ekin Teknoloji San. ve Tic As	3013
Florida Department of Transportation	423
GEWI	2805
Go-Light	2913
Heusch/Boesefeldt GmbH	3023
HNTB	2724
IBM	2023
Image Sensing Systems	307
Information Display Co	528
Inrix	601
Intelight Inc	3018
Intercomp	415
International Road Dynamics, Inc.	1322
Kimley-Horn and Associates, Inc.	2624
KOMOTO Enterprise Co., Ltd.	521
Korea Pavilion	1011
Laser Technology, Inc.	2623
MG Squared Lowering Systems	3016
Ministry of Land, Infrastructure, Transport and Tourism	1601
Miovision Technologies Inc	1228
NEC Corporation	1601
Neurosoft	326
Open Roads Consulting, Inc.	2521
Peek Traffic Corporation	1014
Proxim Wireless	3015
PTV AG	2523
Q-Free ASA	614
Schneider Electric	1407
Sensys Networks, Inc.	1210
SICE	310
Siemens	2001
Siemens Canada Limited	2605
Skyline Products, Inc.	2418
Smart Microwave Sensors	1223
Southwest Research Institute	1410
Swarco AG	2410
TKH Security Solutions - USA	2807
Toshiba Corporation	1601
Trafficware, Ltd.	605
TransCore	2421
TSS - Transport Simulation Systems, Inc.	921
UTMS Society of Japan	1601
Versilis Inc	2723
Vicomtech-IK4	3008
Vizzion	924
Vzglyad LLC	1018
Xerox	402

Advanced Vehicle Control/ Safety Systems

EXHIBITOR	BOOTH
ADVICS	1724
Applus IDIADA	2407
Cetecom	2015
Honda Motor Co., Ltd.	1426
IAV Automative Engineering, Inc.	611
Ibeo Automotive Systems GmbH	2608
Kapsch TrafficCom AG	1418
KOMOTO Enterprise Co., Ltd.	521
Korea Pavilion	1011
Lanner Electronics	2721
Magna Electronics	623
Marben Products	2908
Mechanical Simulation	708
Ministry of Internal Affairs and Communications	1601
NEC Corporation	1601
Phoenix Contact	523
Quanergy Systems, Inc.	626
Tokyo Metropolitan Government	1601

Architecture

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Consensus Systems Technologies Corp.	1222
Forum8 Co., Ltd.	811
ITS Japan	1601
Utimaco Inc.	1023

Association

EXHIBITOR	BOOTH
23rd ITS World Congress 2016 Melbourne	1728
Automotive Safety Council	325
BGI - Bordeaux Invest	2015
ERTICO - ITS Europe - European Pavilion	2015
IMSA International Municipal Signal Association	2729
ITS America - ITS America Pavilion	1718
ITS Australia	1728
ITS Canada	1206
ITS Finland	2015
ITS France	2015
ITS Japan	1601
RACER Trust	2909
Topos Aquitaine	2015
UTMS Society of Japan	1601

Automotive & OEM

EXHIBITOR	BOOTH
Continental Automotive	1001
General Motors	2007
NXP Semiconductors	2818
Renishaw, Inc.	508
Rohde & Schwarz	2907
Toyota Motor Corporation	2018
Utimaco Inc.	1023

Automotive Entertainment Technologies

EXHIBITOR	BOOTH
Forum8 Co., Ltd.	811
NXP Semiconductors	2818
Texas Instruments	723
Visteon Corporation	801

Central Control Room/Traffic Operations Systems

EXHIBITOR	BOOTH
CITEL	2726
Core Tec Communications LLC	608
Cubic Transportation Systems	2826
FLIR Systems Inc	2618
IBM	2023
Mitsubishi Electric	405
Moxa Americas, Inc.	2810
Phoenix Contact	523
Schneider Electric	1407
Siemens	2001
Skyline Products, Inc.	2418
Skyline Technology Solutions	1226
Toshiba Corporation	1601
TrafficVision™	1422
Vizzion	924

Commercial Vehicle Safety, Security and Payment Systems

EXHIBITOR	BOOTH
Continental Automotive	1001
Quanergy Systems, Inc.	626
Utimaco Inc.	1023
VIVOTEK	322

Consumer Electronics

EXHIBITOR	BOOTH
VALEO	2608

Driver Assistance Systems

EXHIBITOR	BOOTH
AISIN SEIKI	1724
Autotalks	2905
CASE Systems Inc.	1027
Continental Automotive	1001
Delphi	2401
EROAD	1728

Exhibitor Category

EXHIBITOR	BOOTH
Ibeo Automotive Systems GmbH	2608
Magna Electronics	623
Mechanical Simulation	708
Ministry of Land, Infrastructure, Transport and Tourism	1601
NICTA – National ICT Australia	1728
Quanergy Systems, Inc.	626
Savari Inc	1424
TASS International	421
Texas Instruments	723
Toshiba Corporation	1601
VALEO	2608
Vicomtech-IK4	3008

Electronic Toll/Fare Collection Systems

Advantech	1021
AECOM	2628
ARH	1123
Comtrol Corp	422
HNTB	2724
ITS Taiwan	2601
Kapsch TrafficCom AG	1418
Kistler Instrument Corporation	428
KOMOTO Enterprise Co., Ltd.	521
Mitsubishi Heavy Industries, Ltd.	618
Noptel Oy	2921
Q-Free ASA	614
SICE	310
TransCore	2421
Vendeka Information Technologies	313
VITRONIC Machine Vision	607
Vzglyad LLC	1018
Xerox	402

Emergency Response Equipment & Technology

Fujitsu Group	1601
Global Traffic Technologies	2423
Mitsubishi Electric	405
Skyline Technology Solutions	1226
Trafficware, Ltd.	605

Fleet Management Systems

Advantech	1021
Battelle	621
Eberle Design Inc.	1121
IAV Automative Engineering, Inc.	611
Lanner Electronics	2721
Mobile Mark, Inc.	1323
Panasonic Corporation	1213
Verizon	814
Ver-Mac	306

EXHIBITOR	BOOTH

GPS & GIS Technology Applications

Applied Information, Inc.	826
Drivewyze	3029
Esri	818
EROAD	1728
MS2	609
Mitsubishi Heavy Industries, Ltd.	618
Mobile Mark, Inc.	1323
Proxim Wireless	3015

Integrated Vehicle Control and Safety Systems

ADVICS	1724
Aisin AW Co., Ltd.	1724
DENSO Corporation	2801
FLIR Systems Inc	2618
Magna Electronics	623
Marben Products	2908
Texas Instruments	723

Intermodal Systems Integration

Heusch/Boesefeldt GmbH	3023
Kistler Instrument Corporation	428
RideScout	1026

Internet-Based Applications

CloudParc	726
Drivewyze	3029
Esri	818
eTrans2020	826
Intelight Inc	3018
Intercomp	415
Millen Corporation	2015
MS2	609
Red Lion Controls	923
RideScout	1026
QvisionTechnology	1029
SpeedInfo, Inc	922
TrafficCast International, Inc.	1126

In-Vehicle Navigation Systems/Safety Devices

Aisin AW Co., Ltd.	1724
Delphi	2401
DENSO Corporation	2801
Quantum Inventions	729
Tom Tom	418
Cisco	1608
Fujitsu Group	1601
Information Logistics Inc.	728
Inrix	601

EXHIBITOR	BOOTH
Spirent	318
Tom Tom	418

Location-Based Technology & Services

Cisco	1608
Fujitsu Group	1601
Information Logistics Inc.	728
Inrix	601
Spirent	318
Tom Tom	418

Mobile Applications for Personal & Automotive Devices

Information Logistics Inc.	728
Intelematics	1728
Parkmobile USA, Inc.	302
RideScout	1026
TrafficCast International, Inc.	1126
Vaisala	2808

Modeling & Simulation Tools

Argonne National Laboratory - TRACC	429
eTrans2020	826
Esri	818
Forum8 Co., Ltd.	811
Ibeo Automotive Systems GmbH	2608
Mechanical Simulation	708
NICTA – National ICT Australia	1728
PTV AG	2523
Realtime Technologies	627
Spirent	318
TASS International	421
TSS - Transport Simulation Systems, Inc.	921
Vector CANtech, Inc.	327

Obstacle Warning Systems

AISIN SEIKI	1724
Renishaw, Inc.	508

Parking Management Systems

AISIN SEIKI	1724
Applied Information, Inc.	826
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Ministry of Land, Infrastructure, Transport and Tourism	1601

Publishing / Media

EXHIBITOR	BOOTH
ITS International	628
Thinking Highways	3019
Traffic Technology International	822
Transportation Management & Engineering	2722

Real-Time Travel Information Technology

EXHIBITOR	BOOTH
Adaptive Micro Systems Inc.	3020
Aldis Corporation	1413
All Traffic Solutions	824
ASTI Transportation Systems Inc.	510
BLIP Systems	705
CASE Systems Inc.	1027
Cubic Transportation Systems	2826
GEWI	2805
Inrix	601
Intelematics	1728
International Road Dynamics, Inc.	1322
Iteris, Inc.	2223
Neurosoft	326
NEXCOM	309
Noptel Oy	2921
NSL-Camera Lowering Systems	2728
Open Roads Consulting, Inc.	2521
Quantum Inventions	729
RideScout	1026
Schneider Electric	1407
Sensys Networks, Inc.	1210
Siemens	2001
Skyline Technology Solutions	1226
QvisionTechnology	1029
SpeedInfo, Inc.	922
Tom Tom	418
TrafficCast International, Inc.	1126
TrafficVision™	1422
Traveller Information Services Association (TISA) ASBL	2015
TSS - Transport Simulation Systems, Inc.	921
Vaisala	2808
Ver-Mac	306
Vizzion	924
Wavetronix, LLC	513

Road Markings

EXHIBITOR	BOOTH
Yaham Optoelectronics Co.,Ltd	2914

Signaling & Control Systems

EXHIBITOR	BOOTH
Applied Information, Inc.	826
CITEL	2726
Comtrol Corp	422
Eberle Design Inc.	1121
Econolite Group, Inc.	1614
Emerson Network Power	323
Global Traffic Technologies	2423
Go-Light	2913
Millen Corporation	2015
Peek Traffic Corporation	1014
Phoenix Contact	523
SIMREX Corporation	629
STEGO, Inc.	2915
Swarco AG	2410
Traffic Technologies	1728
Trafficware, Ltd.	605
Yaham Optoelectronics Co.,Ltd	2914

Standards

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Delcan Technologies, Inc.	2823
ITS America Pavilion	1718
UTMS Society of Japan	1601

Surveillance Technology

EXHIBITOR	BOOTH
Agent Video Intelligence (Agent Vi)	2626
ASTI Transportation Systems Inc.	510
Axis Communications Inc.	2626
Cisco	1608
Core Tec Communications LLC	608
Digital Traffic Systems, Inc.	821
ekin Teknoloji San. ve Tic As	3013
EtherWAN Systems, Inc.	408
G4S Technology	414
Integral Blue, LLC	3012
Lanner Electronics	2721
MG Squared Lowering Systems	3016
NEXCOM	309
NSL-Camera Lowering Systems	2728
Proxim Wireless	3015
TKH Security Solutions - USA	2807
TrafficVision™	1422
VITRONIC Machine Vision	607
VIVOTEK	322
Wanco Inc.	3026
Vicomtech-IK4	3008
Wireless Technology / WTI	2922

Systems Engineering

EXHIBITOR	BOOTH
AECOM	2628
Alpha Technologies Ltd.	2621
Argonne National Laboratory - TRACC	429
Axiomtek	823
Consensus Systems Technologies Corp.	1222
Digital Traffic Systems, Inc.	821
EtherWAN Systems, Inc.	408
Integral Blue, LLC	3012
Iteris, Inc.	2223
ITS Minnesota	529
Kimley-Horn and Associates, Inc.	2624
P3 North America	1324
Traffic Technologies	1728
Vector CANtech, Inc.	327

Telecommunications

EXHIBITOR	BOOTH
CASE Systems Inc.	1027
Core Tec Communications LLC	608
Ericsson	1005
EtherWAN Systems, Inc.	408
G4S Technology	414
Integral Blue, LLC	3012
M.H. Corbin, Inc.	320
MULTILINK	1129
Opti-Com Manufacturing Network, LLC	509
Red Lion Controls	923
Siemens Canada Limited	2605
Verizon	814

Telematics

EXHIBITOR	BOOTH
Aisin AW Co., Ltd.	1724
Arada Systems, Inc.	2911
Battelle	621
Bosch Service Solutions	1024
Delcan Technologies, Inc.	2823
Driving Management Systems	3007
EROAD	1728
Fujitsu Group	1601
Go-Light	2913
Honda Motor Co., Ltd.	1426
Intelematics	1728
ITS Taiwan	2601
NEXCOM	309
P3 North America	1324
PTV AG	2523
Quantum Inventions	729
Realtime Technologies	627
Sumitomo Electric Industries, Ltd.	1601
Vehicle Information and Communication System Center	1601
Verizon	814
Visteon Corporation	801

Exhibitor Category

Ticketing and Smart Cards

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Traffic Control Equipment

Aldis Corporation	1413
All Traffic Solutions	824
Alpha Technologies Ltd.	2621
American Signal Company	3021
Area Wide Protective	2923
Axiomtek	823
Carrier & Gable	3011
CITEL	2726
Citilog	2924
CLARY Corporation	411
Eberle Design Inc.	1121
Econolite Group, Inc.	1614
ekin Teknoloji San. ve Tic As	3013
Emerson Network Power	323
FLIR Systems Inc	2618
Information Display Co	528
Intelight Inc	3018
Intercomp	415
International Road Dynamics, Inc.	1322
Iteris, Inc.	2223
Kistler Instrument Corporation	428
Korea Pavilion	1011
Laser Technology, Inc.	2623
MG Squared Lowering Systems	3016
Millen Corporation	2015
Miovision Technologies Inc	1228
Mitsubishi Electric	405
Moxa Americas, Inc.	2810
Noptel Oy	2921
NSL-Camera Lowering Systems	2728
Peek Traffic Corporation	1014
Renishaw, Inc.	508
Sensys Networks, Inc.	1210
SIMREX Corporation	629
Smart Microwave Sensors	1223
STEGO, Inc.	2915
Sumitomo Electric Industries, Ltd.	1601
TKH Security Solutions - USA	2807
Tokyo Metropolitan Government	1601
Traffic Technologies	1728
Versilis Inc	2723
VITRONIC Machine Vision	607
Wanco Inc	3026
Wavetronix, LLC	513

Transit Systems

Alpha Technologies Ltd.	2621
Carrier & Gable	3011
Consensus Systems Technologies Corp.	1222
Global Traffic Technologies	2423
Realtime Technologies	627
SIMREX Corporation	629

Traveler Information Systems

ASTI Transportation Systems Inc.	510
Atkins	1622
Citilog	2924
Florida Department of Transportation	423
GEWI	2805
Information Logistics Inc.	728
ITS Taiwan	2601
M.H. Corbin, Inc.	320
Open Roads Consulting, Inc.	2521
SIMREX Corporation	629
QvisionTechnology	1029
SpeedInfo, Inc	922
TransCore	2421
Ver-Mac	306

Tunnel Maintenance and Management

Citilog	2924
SICE	310

Variable Message Signs

Adaptive Micro Systems Inc.	3020
All Traffic Solutions	824
American Signal Company	3021
Area Wide Protective	2923
Electro-Matic Products, Inc.	305
Emerson Network Power	323
G4S Technology	414
Information Display Co	528
SES America, Inc.	721
Skyline Products, Inc.	2418
Versilis Inc	2723
Wanco Inc	3026
Yaham Optoelectronics Co.,Ltd	2914

Vehicle Safety Systems

ADVICS	1724
Applus IDIADA	2407
Arada Systems, Inc	2911
Autotalks	2905
Bosch Service Solutions	1024
Driving Management Systems	3007
Ministry of Internal Affairs and Communications	1601
NEC Corporation	1601
Panasonic Corporation	1213
Savari Inc	1424
Southwest Research Institute	1410
TAKATA	808
VIVOTEK	322

Vehicle-to-Vehicle and Vehicle-to-Infrastructure Communications Systems

Applus IDIADA	2407
Arada Systems, Inc	2911
Atkins	1622
Autotalks	2905
Battelle	621
Bosch Service Solutions	1024
Cetecom	2015
Cisco	1608
Cohda Wireless	1728
Delphi	2401
DENSO Corporation	2801
Ericsson	1005
eTrans2020	826
Florida Department of Transportation	423
Heusch/Boesefeldt GmbH	3023
HNTB	2724
Honda Motor Co., Ltd.	1426
IAV Automative Engineering, Inc.	611
IBM	2023
Kapsch TrafficCom AG	1418
Marben Products	2908
Ministry of Internal Affairs and Communications	1601
Mitsubishi Electric Corporation (Japan)	1601
Mitsubishi Heavy Industries, Ltd.	618
Mobile Mark, Inc.	1323
Moxa Americas, Inc.	2810
NICTA – National ICT Australia	1728
NXP Semiconductors	2818
P3 North America	1324
Panasonic Corporation	1213
Red Lion Controls	923
Rohde & Schwarz	2907
Savari Inc	1424
Siemens Canada Limited	2605
Smart Microwave Sensors	1223
Southwest Research Institute	1410
Spirent	318
Sumitomo Electric Industries, Ltd.	1601
TASS International	421
U.S. Department of Transportation (USDOT)	1201
VALEO	2608
Vector CANtech, Inc.	327
Virginia Tech Transportation Institute (VTTI)	1328
Visteon Corporation	801

Weather Systems

Campbell Scientific, Inc	413
Digital Traffic Systems, Inc.	821
Lufft USA, Inc.	321
M.H. Corbin, Inc.	320
Vaisala	2808

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Electro-Matic Products, Inc.

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FDOT's ITS Program endeavors to provide a safe transportation system that ensures the mobility of people and goods, enhances economic prosperity, and preserves the quality of our environment and communities. This is accomplished through coordination and promotion of the deployment of ITS throughout Florida.

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Global Traffic Technologies

Booth: 2423

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Global Traffic Technologies, LLC (GTT), formed in 2007 from 3M's pioneering Intelligent Transportation Systems business, is the manufacturer of Opticom™ priority control systems and Canoga™ traffic sensing systems. These systems have provided safe and reliable traffic solutions to communities for over 40 years.

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ITS World Congress 2015	p175	www.itsworldcongress.com			

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ITS Australia

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ITS Australia is the nation's principal organisation focused on facilitating the development and deployment of advanced technologies across all modes of transport - air, sea, road & rail. It is an incorporated, non-for-profit organisation representing government, industry and research organisations. ITS Australia will host the 23rd ITS World Congress in Melbourne in 2016.

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ITS Canada (Intelligent Transportation Systems Society of Canada) is the national association for intelligent transportation development and deployment in Canada. It represents industry, universities and governments in Canada for the safer, faster and more sustainable movement of both people and goods in Canada, and across our borders.

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ITS Finland, the national ITS organisation in Finland, promotes development, deployment and achievements of ITS services and products in Finland. Information and Finnish expert meetings on highlighted daily topics like smart cities and corridors, national strategy update etc.

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ITS France is a non-for-profit organisation bringing together all stakeholders within ITS in France. ITS France promotes the development and deployment of advanced technologies to deliver safer, more efficient and environmentally sustainable of the surface transportation system. ITS France is the contact point for French expertise on ITS.

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ITS Minnesota

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ITS Minnesota's mission is to foster broader grassroots participation and public/private partnerships in ITS, which generates interest, excitement, cooperation and progress focused on implementation results. ITS Minnesota's vision is to strive to keep transportation stakeholders current and up-to-date on the status, plan, and future of ITS technology and projects.

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Connekt/ITS Netherlands is an independent network of companies and authorities that links up parties to improve mobility in the Netherlands in a sustainable manner. Sharing knowledge, know-how and initiatives and connecting members is our main goal, for themes such as ITS, logistics and public transport.

ITS Singapore

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ITS Sweden is an independent, non profit national ITS Organisation. We organize national platforms for all actors to ensure the establishment of an efficient transport system. We are a link between the national work/focus areas and the international aspects.

ITS Taiwan

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Intelligent Transportation Society of Taiwan (ITS Taiwan) was established in 1998. We are a Non-profit Organization (NPO) and as a bridge of communication between the industry and the government in Taiwan.

ITS World Congress Bordeaux 2015

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Kapsch TrafficCom AG

Booth: 1418

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Kapsch TrafficCom is a provider of intelligent transportation systems (ITS) in road user charging, urban access and parking, road safety enforcement, commercial vehicle operations, electronic vehicle registration, traffic management and V2X cooperative systems. We cover the entire value chain of our customers from components and subsystems to integration and operation.

Kimley-Horn and Associates, Inc.

Booth: 2624

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As a leading ITS firm, Kimley-Horn's intelligent transportation systems are implemented coast to coast. Whether you're looking for feasibility & planning studies, system plans, specifications & estimates, system integration, construction & operational support, or system management, we have the expertise you need for the most intelligent transportation system.

Kistler Instrument Corporation

Booth: 428

30280 Hudson Drive,
Novi MI, 48377, United States
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KOMOTO Enterprise Co., Ltd.

Booth: 521

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KOMOTO established in year 1989 and specialized in research and development of IR Strobe, has been dedicated in providing solutions of ANPR equipment. Energy Saving IR Strobe: Able to combining with most cameras. Suitable for the application of highway, parking lots, over speed catching In the night time, clear number plate can be recorded (The target speed up to 200 km/hr.)

Korea Pavilion

Booth: 1011

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Korea Pavilion is a joint exhibition stand of ITS Korea, KEC(Korean Express Corporation), KAIA(Korea Agency for Infrastructure Technology Advancement) and SK C&C. The current status, new technology and equipment of Korean ITS will be introduced at Korea Pavilion.

Korea Road Traffic Authority

Booth: 2910

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Lanner Electronics

Booth: 2721

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Lanner is a technology design and manufacturing leader for intelligent transportation applications. Our server and gateways systems enable innovative complete solutions for roadside, invehicle and station traffic management, control and communications devices. Work with Lanner to reduce development, integration and support costs.

Laser Technology, Inc.

Booth: 2623

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Laser Technology Inc. (LTI) provides a variety of sensing capabilities across a number of different traffic applications that allow for profiling, measuring, detecting, classifying, triggering or counting. Whether you're a traffic engineer or system integrator, we have a sensor for you. Come by our booth (#2623) and see why we are Measurably Superior.

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Magna Electronics

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MG Squared Lowering Systems

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Michigan Spotlight - Michigan Economic Development Corporation

Booth: 2032

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Millen Corporation

Booth: 2015

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www.millencorporation.com

The Company provides unique solutions using M2M / 'Internet of Things' Technology in Remote Monitoring Applications. Namely, the TrCAMS™ product provides Public Bodies to connect to their Traffic Signal Controller Installations for Remote Monitoring, Test (Checksum), Fault Identification, Analysis and Fault Notification.

Ministry of Internal Affairs and Communications (MIC)

Booth: 1601

2-1-2, Kasumigaseki, Chiyoda-ku
Tokyo,100-8926, Japan
Phone: -10286
Email: itsradio@ml.soumu.go.jp
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MIC is promoting Intelligent Transport Systems (ITS) with consideration of relevant aspects including the allocation of radio frequencies, research and development of wireless communication technology, establishment of technical standards, and international standardization. MIC is working for ITS in cooperation with relevant ministries.

Ministry of Land, Infrastructure, Transport and Tourism

Booth: 1601

2-1-3 Kasumigaseki, Chiyoda-ku
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Phone: -13659
Email: nakamura-m2vf@mlit.go.jp
www.mlit.go.jp/en/index.html

The Ministry of Land, Infrastructure, Transport and Tourism is expanding the use of ITS in order to resolve traffic problems such as accidents and adverse environmental effects, as we aim to create the safest, smartest, and most efficient road network in the world.

Miovision Technologies Inc.

Booth: 1228

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Phone: +1-519-513-2407
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miovision.com

Miovision Technologies creates intelligent solutions to address the challenges facing global transportation networks. As a leader in traffic data collection and now in the adaptive control market, these solutions directly and indirectly reduce traffic congestion, optimize traffic flow and queues, minimize environmental impacts and improve the overall safety of roads.

Mitsubishi Electric

Booth: 405

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Mitsubishi Electric Corporation

Booth: 1601

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Tokyo, 100-8310, Japan
Phone: +81-(3)-3218-2111
Email: ogura.yasushi@bc.mitsubishielectric.co.jp
www.mitsubishielectric.com

At the Mitsubishi Electric booth, we'll be introducing advanced driver assistance systems and automatic driving systems based on infrastructure cooperation utilizing ITS spot services in Japan. Other products featured will be a car navigation system supporting ITS spot services and DSRC on-board equipment.

Mitsubishi Heavy Industries, Ltd.

Booth: 618

1-1, Wadasaki-cho 1-chrome, Hyogo-ku
Kobe, 652-8585, Japan
Phone: +81-78-672-2039
Fax: +81-78-672-2900
Email: takakazu_tsuji@mhi.co.jp
www.mhi-global.com/index.html

Mitsubishi Heavy Industries, Ltd.(MHI) has founded in 1884 and in the field of ITS, MHI has been the world leading system integrator since 1964. MHI can provide reliable machine and system integration of ITS and Toll Collection Facilities. Furthermore MHI are recently expanding our business domain using ICT solutions, such as system integration of smart community/mobility.

Mobile Mark, Inc.

Booth: 1323

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Phone: +1-847-671-6690
Email: esylvan@mobilemark.com
www.mobilemark.com

Mobile Mark designed and manufactures rugged, efficient antenna solutions for 137 MHz – 6.0 GHz. We offer an extensive line of ITS/DSRC 5.9 GHz antennas for Smart Highways, Collision Avoidance, and Tolling including embedded and externally mounted antennas for vehicle-to-vehicle (V2V) and omni-directional or directional network antennas.

Moxa Americas, Inc.

Booth: 2810

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MS2 is expert in the design and hosting of cloud-based transportation data management software.

MULTILINK

Booth: 1129

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NEC Corporation

Booth: 1601

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Email: a-satou@cw.jp.nec.com
www.nec.co.jp

NEC Corporation, kindly welcome all of you related to ITS business to our booth in ITS Japan Pavilion.In our booth, we will introduce with the newest products and technologies based on NEC's image recognition technology.Please allow your time to visit our NEC booth in ITS Japan Pavilion and experience our state-of-the-art ITS.

Nedap Identification Systems

Booth: 2813

500 W Main - Ste 301,
Branson MO, 65616, United States
Phone: +1-417-339-7368
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Email: info-us@nedap.com

Nedap Identification Systems is the leading specialist in systems for long-range identification, wireless vehicle detection and city access control. Our readers, sensors and controllers optimize, monitor and control the movement of vehicles and people. Safe, secure and efficient. Technology that can easily be applied to security, traffic and parking applications.

Neurosoft

Booth: 326

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53-608, Poland
Phone: +48-51-514-9912
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neurosoft.info

Neurosoft was established in 1992. Particularly important applications of our technologies are these connected to intelligent transport and road safety systems. Currently we are the only company offering commercial solutions for complex identification (ANPR-ADR-make-model-color) of vehicles in motion on the basis of image analysis. ANPR, ALPR, MMR, ADR, ITS

NEXCOM

Booth: 309

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NICTA – National ICT Australia

Booth: 1728

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NICTA is Australia's Research Centre of Excellence dedicated to ICT. Our research addresses the technology challenges facing industry, the community and the whole nation. NICTA's Infrastructure, Transport and Logistics Team is delivering innovative ICT solutions that transform the efficiency, safety and sustainability of transportation systems and infrastructure networks.

Noptel Oy

Booth: 2921

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Noptel provides laser distance measurement sensors for wide variety of traffic control and law enforcement applications including snow quantity measurement for winter road maintenance purposes. Noptel company was established in 1982, and therefore, it has extensive experience in this particular business sector.

NSL-Camera Lowering Systems

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NXP Semiconductors

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Open Roads Consulting, Inc.

Booth: 2521

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Opti-Com Manufacturing Network, LLC

Booth: 509

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www.omni-opti.com

Opti-Com Manufacturing Network, LLC, dba OMNI, specializes in manufacturing and distributing outside plant materials and supplies. OMNI conduit systems are available in a variety of U.L. listed materials including PVC, HDPE, fiberglass and steel. OMNI's Opti-Com™ and Micro-Com™ are innovative multi-duct designs that offer a faster, more economical installation.

P3 Group

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Panasonic Corporation

Booth: 1213

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Parkmobile USA, Inc.

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Peek Traffic Corporation

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PTV AG

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Q-Free ASA

Booth: 614

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Booth: 626

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Quantum Inventions

Booth: 729

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Quantum Inventions provides mobility intelligence to consumers, automotive corporations, enterprise & government customers, leveraging on its integrated suite of connected navigation and enterprise logistics applications, with real-time intelligence being provided by information and ITS analytic platforms.

QvisionTechnology

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Realtime Technologies (RTI) specializes in real time multibody vehicle dynamics, and graphical simulation and modeling. RTI offers simulation software applications, consulting, custom engineering, software, and hardware development. RTI's customer base includes university researchers throughout the U.S. and Canada, international, government and private entities.

Red Lion Controls

Booth: 923

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Renishaw, Inc.

Booth: 508

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RideScout

Booth: 1026

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Rohde & Schwarz

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SAE International

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SAVARI

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Savari provides solutions in the connected vehicle market to help improve mobility and safety. Our products are certified by USDOT. Our solutions are being adopted by Tier-1 suppliers for V2X based ADAS systems. Savari is leading the world's first commercial deployment of DSRC by the San Francisco airport in California.

Schneider Electric

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As a global specialist in energy management, Schneider Electric is making energy safe, reliable, efficient, productive and green, the Group's 150,000 plus employees achieved sales of 31 billion US dollars in 2013, through an active commitment to help individuals and organizations make the most of their energy.

Sensys Networks, Inc.

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Sensys Networks is the leading provider of wireless traffic detection and data collection systems. Customers are choosing our wireless solutions for traffic signal control because they need to save time, they have to save money, and they can't take any chances. As a result, we've saved hundreds of cities millions of dollars. Visit our booth to see how much we can save you.

Sensys Traffic AB

Booth: 2015

Slottsgatan 14,
SE-553 22 Jönköping, Sweden
Phone: +46-(0)-36-442-02-10
Email: ulrica.n.bertilsson@sensys.se
www.sensys.se

Sensys Traffic AB, the leading provider of road safety system solutions SENSYS® Traffic AB offers smart solutions for traffic safety and traffic informatics. Our systems for speed and red-light enforcement are used by the world's most demanding Customers.

SES America, Inc.

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www.sesamerica.com

SESA is a DMS manufacturer and ITS solutions provider of cutting-edge innovation and industry-leading energy efficiency. Our clients form the core of whom we are. Communication, Commitment, and Personalization drive our approach to customer service. Custom solutions, Retrofit, Task-Specific, and Full Solar DMS, fitted to the needs of diversified client base.

SICE

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Email: bdediego@sice.com
www.sice.com

SICE is a services provider Company integrator of advanced technologies in the field of Intelligent Transport Systems (ITS). Administration of binomial space-time for road traffic, lighting and road safety, road infra-structures, optimization of public transport, rationalization in the use of urban space, environmental protection, are common needs in a developing world.

Siemens

Booth: 2001

IC MOL RCM ITS, 8004 Cameron Road
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Email: franziska.wagner@siemens.com
www.siemens.com

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Email: ronald.wolcott@siemens.com
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Simrex Wireless Corporation, a wireless engineering and manufacturing firm, has been providing customized, critical based solutions for a variety of industries, including Traffic, ITS, Transit, Railway, Government, Avionics, Tracking, and Military. We provide both off-the-shelf and custom engineered solutions for a variety of applications and industries worldwide.

Skyline Products, Inc.

Booth: 2418

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Skyline has been manufacturing ITS-Grade® DMS since 1971 and ITS-Grade® LED DMS signs since 1994. Skyline is an industry leader and considered to produce the most legible and reliable LED DMS in the industry.For more information about Skyline Products please visit www.skylineproducts.com.

Skyline Technology Solutions

Booth: 1226

508 C McCormick Dr,
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Phone: +1-410-795-2700
Email: sales@skylinenet.net
www.skylinenet.net/videosharing

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Smart Microwave Sensors GmbH

Booth: 1223

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Germany
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Southwest Research Institute

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SwRI® is an applied R&D organization with 20+ yrs experience in the development of traffic management systems, connected vehicles and autonomous vehicles. SwRI developed the FDOT SunGuide® and TXDOT Lonestar® ATMS. SwRI has developed 8 fully autonomous vehicles for the Army, Marines and Navy as well as multiple active safety systems for OEMs in the U.S., Europe and Japan.

SpeedInfo, Inc

Booth: 922

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www.speedinfo.com

Our sensor technology and data service provides highly reliable, accurate and flexible vehicle lane traffic count, flow, travel times and road surface temperature data to regional authorities responsible for traffic data collection, use and dissemination. The versatile SpeedInfo solution makes low cost and fast coverage possible to improve safety, mobility and operations.

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STEGO manufactures innovative products that heat, cool, ventilate, illuminate and control temperature and humidity of enclosed electrical and electronic control systems. These products are renowned for reliability, longevity, simplicity of use, and high quality. STEGO strives to solve electrical and electronic control packaging problems for our valued customers.

Sumitomo Electric Industries, Ltd.

Booth: 1601

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Sumitomo Electric Group has been contributing to a safe, comfortable and environmentally-friendly society by providing ITS infrastructural systems and solutions, for example, traffic control systems and cooperative systems. In addition, we are providing excellent products which secretly support modern intelligent vehicles, such as PHEV, EV and Autonomous Vehicles.

Swarco AG

Booth: 2410

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SWARCO – the Austrian-headquartered traffic technology corporation of Tyrolean entrepreneur Manfred Swarovski – supports society's mobility with turnkey systems and solutions in road marking, urban and interurban traffic control, parking, public transport, detection, infomobility and energy-efficient, LED-based signaling and lighting technology.

Swedish Transport Administration

Booth: 2015

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Strömsund, , Sweden
Phone: +46-705-094970
Email: annica.roos@trafikverket.se
www.trafikverket.se/Om-Trafikverket/Andra-sprak/English-Engelska/About-the-Swedish-Transport-Administration-Trafikverket

The Swedish Transport Administration (Trafikverket) is the Government agency responsible for the long-term planning of the transport system. Trafikverket is also in charge of the state road network and national railway network.

TAKATA

Booth: 808

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Takata Corporation is one of the world's leading automotive safety systems companies, supplying nearly all the world's major automakers with a product range that includes seat belts, airbag systems, steering wheels, child seats, vision systems and other electronic devices. Takata is also one of the most vertically integrated manfacturers in the automotive safety industry.

TASS International

Booth: 421

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TASS International provides development methodologies and engineering tools to the transportation industry to develop solutions for safe, clean and smart mobility. TASS International has acquired state of the art test facilities for cooperative mobility and automated driving. This includes the instrumented Dutch A270 highway, control room and instrumented test fleet.

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Thinking Highways

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thinkinghighways.com

Thinking Highways is in its ninth year of publication and is firmly established as the thought leader in the ITS and advanced traffic management media sector and the recent addition of Jason Barnes to its editorial team has further strengthened its position. In March 2014 H3B Media launched Thinking Cities, a project focusing on smart transportation for cities and regions.

TKH Security Solutions - USA

Booth: 2807

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Email: sales.us@tkhsecurity.com
www.tkhsecurity-usa.com

TKH Security Solutions is a global supplier of advanced video surveillance solutions, including IP cameras, video servers/codecs, network video recorders, fiber transmission equipment, video management and video analytics software. TKH Security Solutions markets its solutions under the Siqura, Optelecom and Diva brand names.

Tokyo Metropolitan Government

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Tokyo, 163-8001, Japan
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Email: Tadao_kudou@member.metro.tokyo.jp
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Tom Tom

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Topos Aquitaine

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www.topos-aquitaine.org

TOPOS Aquitaine was created in 2006 at the initiative of the Aquitaine Regional Council. TOPOS now boasts more than forty active members, all skilled in the field of satellite-based navigation and positioning and, by extension, intelligent transport systems. TOPOS Aquitaine bring to Bordeaux the 2015 edition of the World Congress on Intelligent Transport Systems.

Toshiba Corporation

Booth: 1601

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Email: kengo.kondo@toshiba.co.jp
www.toshiba.co.jp/worldwide/index.html

Based on the concept" Enabling efficient and optimal traffic and energy flow", wide range of business and technology related to mobility are shown. Especially three major solutions: urban transport solutions utilizing battery-driven LRT or electric bus, highway solutions and transport-related energy solutions are highlighted.

Toyota Motor Corporation

Booth: 2018

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Tokyo,112-8701, Japan
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Traffic Technologies Ltd

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www.trafficltd.com.au

Traffic Technologies Ltd is Australia's premier traffic company in providing innovative and cost effective solutions to the traffic industry. Established in 2004 and listed on the Australian Stock Exchange, Traffic Technologies has gained a strong reputation in a demanding industry through its Technical Products Division, Traffic Controller Operations and Signage Division.

Traffic Technology International

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www.traffictechnologytoday.com

Traffic Technology International, launched in 1994, is the leading magazine in the advanced traffic management field. Renowned for its peerless editorial quality and stunning design, Traffic Technology International won the prestigious Periodical Publishers Association's 'International Business-to-Business Magazine of the Year' award in May 2000.

TrafficCast International, Inc.

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www.trafficcast.com

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TrafficVision™

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Email: AddyBabalola@trafficware.com
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TransCore

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Transportation Management & Engineering

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Trapeze Group

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Traveller Information Services Association (TISA) ASBL

Booth: 2015

c/o ERTICO, Avenue Louise 326
Brussels, 1050, Belgium
Phone: +32-2-400-07-28
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TISA (Traveller Information Services Association) is a market-driven membership organization with worldwide scope, established as a not-for-profit company focused on proactive implementation of traffic and travel information services and products based on existing standards, including primarily RDS-TMC and TPEG technologies. TISA membership consists of 104 members.

TSS - Transport Simulation Systems, Inc.

Booth: 921

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TSS-Transport Simulation Systems develops, markets and supports Aimsun traffic modeling software: microscopic, mesoscopic and hybrid modeling plus travel demand modeling and macroscopic functionalities, all within a single application. Aimsun Online is the market's only simulation-based decision support system for real-time traffic management.

U.S. Department of Transportation (USDOT)

Booth: 1201

1200 New Jersey Ave SE,
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www.its.dot.gov

The U.S. Department of Transportation's (USDOT) ITS research program focuses on intelligent vehicles, intelligent infrastructure and the creation of an intelligent transportation system. USDOT's Connected Vehicle research it involves wireless communication between vehicles, infrastructure and personal devices for safety, mobility and environmental benefits.

Utimaco Inc.

Booth: 1023

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UTMS Society of Japan

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The UTMS (Universal Traffic Management Systems) are the systems that realize safe, comfortable, and environmentally-friendly traffic society through the applications of constantly-evolving technology such as information communication technologies. The UTMS Socirty of Japan investigates, researches and develops the UTMS and disseminates the results to the public.

Vaisala

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Vector CANtech, Inc.

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Vehicle Information and Communication System Center (VICS Center)

Booth: 1601

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Email: okochi@vics.or.jp
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Vehicle Information and Communication System Center (VICS Center) provides traffic information for the car navigation system. VICS center also processes and edits the traffic information like congestion or regulation which is collected through prefectural police headquarters and road administrators to change into the text information or graphic form or map overlay.

Vendeka Information Technologies

Booth: 313

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Verizon

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Ver-Mac

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Versilis Inc

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Vicomtech – IK4

Booth: 3008

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Vicomtech-IK4 is an Application-Oriented research organization. We are focused on the development of advanced computer vision based ITS tailored solutions for the industry: ADAS, SLAM, Automatic Traffic Control, 3D simulation and semantics. Our role in the market is to supply society with technology by transfer of primary research to industry.

Virginia Tech Transportation Institute (VTTI)

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Visteon Corporation

Booth: 801

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Visteon Electronics, a division of Visteon Corporation, is a leading supplier of automotive cockpit electronics that delivers innovative in-vehicle user experiences through solutions in user interfaces, connectivity and open architectures. Visteon Electronics is supported by a global network of 16 manufacturing facilities, four technical centers and 11 customer centers.

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VIVOTEK

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Vizzion

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Vzglyad LLC

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YAHAM was founded in 2002, headquarters in Shenzhen, dedicated to develop professional LED traffic guidance. The engineers focus on global led traffic development, specialize in led traffic research and development. Based on good reputation, high quality products and professional service, we have been a partner of Siemens, Hongkong Metro, etc for many years.

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