#ITSAM 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 #ITSAM to connect with other attendees.

@ITS_America // The ITS Annual Meeting hashtag is #ITSAM.

facebook.com/ITSofAmerica // Post comments about the meeting on ITS America’s Facebook page.

// Connect with ITS America & other ITS industry professionals on LinkedIn.
Welcome

It is our privilege to welcome you and thousands of transportation industry leaders, technology providers, policymakers, researchers and engineers to the Intelligent Transportation Society of America’s (ITS America) 25th Annual Meeting and Exposition.

Pittsburgh is perfectly positioned to host the 2015 ITS Annual Meeting. Long known as a steel town, Pittsburgh and the surrounding region is a growing corridor for high tech businesses and a center for entrepreneurship. With its key position for freight movement and its leading transportation research and academic institutions, Pittsburgh is spearheading some of the most advanced and exciting ITS research and development on the planet including critical infrastructure improvements, greater transportation access for the movement of people and goods, autonomous vehicle technology and more.

The ITS industry is at a critical moment. Collaboration between the private and public sector has never been more important. As technology continues to transform transportation, this meeting is crucial for anyone wanting to have a seat at the table.

The ITS Annual Meeting is also an excellent opportunity to network and learn about the latest technology solutions which are available to help address state and local transportation challenges; and for private sector leaders to showcase their latest ITS products and services in our bustling exhibit hall.

Co-hosted with ITS Pennsylvania, this year’s Annual Meeting program highlights local ITS initiatives in Pittsburgh and explores ITS initiatives across all 50 states. The program features a wide array of topics, including connected and automated vehicles, safety and security, financing and funding, sustainability, shared-use mobility and transit, commercial vehicle and freight logistics, mobile applications, transportation systems operations, and more.

The ITS Annual Meeting is open to ITS America members and non-members alike and we encourage you to consider joining us and the 2,000 expected attendees as we explore bridges to innovation and the critical evolution of our nation’s transportation infrastructure network. We hope you enjoy this dynamic preliminary program and we’ll continue to release additional details and make special announcements in the months leading up to the event. We’ll see you in Pittsburgh.

Thomas E. Kern
Interim President and CEO
ITS America

Domenic A. D’Andrea, P.E., PTOE
2015 Organizing Committee Co-Chair
Manager-Operations & Safety Programs
Southwestern Pennsylvania Commission

Daniel G. Corey, P.E.
2015 Organizing Committee Co-Chair
Associate Vice President & Deputy
ITS Practice Leader
AECOM
Annual Meeting & Expo Format

Special Features

■ State Department of Transportation Officials Roundtable
Hear firsthand from State Department of Transportation (DOT) officials as they discuss in an open forum the issues that matter most to the ITS community including deployment strategies and funding priorities to develop and maintain our state and local transportation networks by utilizing technology effectively. This unique roundtable is open to all Annual Meeting attendees. See page 21

■ Emergency Response Day
This year, Emergency Response Day will focus on the Life Cycle of Traffic Incident Management (TIM). We’ll discuss how communications and information technologies can assist TIM and look for applications that can protect the lives of the general public and the emergency responders who serve them. See page 22

Sessions

■ Plenary Sessions
Plenary sessions feature a keynote speaker and in some cases also include a panel discussion of high level ITS industry executives focused on a specific topic. Tuesday’s plenary will feature senior officials from the U.S. Department of Transportation and a discussion around Beyond Traffic: a 30-Year Outlook on the Future of Our Nation’s Infrastructure and the latest developments in federal ITS programs. See page 24

■ Town Hall Sessions
Town Hall sessions function as an open forum, providing a panel of experts and attendees with a highly interactive experience that will host higher profile topics and speakers affecting the high tech transportation industry. See page 27

■ Executive Sessions
Executive sessions provide thought-provoking discussions with high-level industry executives, public officials, and academics as they share their expert global and strategic views on timely ITS issues and challenges. See page 28

■ Special Interest Sessions
Special Interest sessions focus on public and private sector ITS activities including emerging and effective public-private partnerships, the development and deployment of transportation technologies and initiatives, and policies. These sessions are designed as open environment for experts from government, industry, and academia to hold discussions and debates on specific topics. See page 30

■ Technical Sessions
Technical sessions provide attendees an opportunity to learn the details surrounding the latest transportation technologies, test beds and pilots, and research programs happening in the U.S. More than 60 papers and presentations will make up this part of the program where the authors themselves will discuss an extensive portfolio of ITS-related topics. See page 44

■ Training Sessions
In partnership with the U.S. DOT’s Federal Highway Administration (FHWA), ITS America is excited to provide an opportunity for public and private sector ITS and transportation professionals to attend official training courses conducted by U.S. DOT instructors. This is an excellent opportunity for anyone wanting to expand their knowledge base, grow professionally and take back real world information that can help their ITS systems operate more efficiently. All training courses are free to paid registrants. See page 52

■ ITS America Forum Meetings
ITS America invites attendees to participate in the association’s Forum Business Meetings and learn more about the memberships technical communities and the important work being undertaken on the challenges and opportunities surrounding research, deployment and management of advanced ITS technologies and best practices. See page 54
Exhibition

The Exhibition, to be held in Hall B of the David L. Lawrence Convention Center, provides a centralized meeting point for industries and agencies involved in ITS. Attendees can gain exposure to buyers and partners that represent the entire spectrum of ITS technology and transportation services, including regional and national public agencies, the automotive sector, consulting firms, infrastructure equipment manufacturers, telematics and telecommunications providers, and more.

In addition, new for the Annual Meeting this year is an Entrepreneurial Village where transportation, energy and smart cities focused startups and emerging companies will have the ability to showcase their innovative ideas within a dedicated space in the exhibit hall. Xerox, a founding member of the ITS America Leadership Circle, is sponsoring this year’s Entrepreneurial Village to enable startups to continue changing the face of transportation as we know it. See page 66

Technical Tours

The City of Pittsburgh and the surrounding area is leading the way in advancing transportation technologies such as smart sensors for parking, real-time traffic and transit information, advanced automotive safety and robotics technologies, and smart mobility applications. Various technical tours will showcase how investment in ITS research and deployment is revolutionizing Pittsburgh’s transportation network as we know it. See page 62

Ancillary Events, Meetings & Workshops

Ancillary events include special invitation-only sessions typically occurring over breakfast or lunch, as well as a series of evening social events open to all attendees that have been organized to provide unforgettable networking opportunities. ITS America committee or forum meetings and partner organization sponsored workshops also fall into this category. See page 56
Sponsors

On behalf of ITS America and the Organizing Committee for the 2015 ITS Annual Meeting & Expo, we would like to thank the following companies and organizations for their continued contribution and dedication to the high tech transportation industry.*

*As of April 8, 2015
## Schedule at a Glance

<table>
<thead>
<tr>
<th>Time</th>
<th>Sunday May 31</th>
<th>Monday June 1</th>
<th>Tuesday June 2</th>
<th>Wednesday June 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00AM</td>
<td>Registration</td>
<td>New Member Reception</td>
<td>ITS America Business Meeting &amp; Awards Breakfast</td>
<td>ITSAmerica25th Anniversary Reception</td>
</tr>
<tr>
<td>7:30AM</td>
<td>AASHTO Transportation Systems Management and Operations (STSMO) Meeting</td>
<td>Legislative Breakfast</td>
<td>General Sessions</td>
<td>Technical Tours</td>
</tr>
<tr>
<td>8:00AM</td>
<td>Legislative Breakfast</td>
<td>Opening Plenary</td>
<td>Techniques Sessions</td>
<td>General Sessions</td>
</tr>
<tr>
<td>8:30AM</td>
<td>FHWA Training Sessions</td>
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<td>Technical Sessions</td>
<td>General Sessions</td>
</tr>
<tr>
<td>9:00AM</td>
<td>Legislative Breakfast</td>
<td>FHWA Training Sessions</td>
<td>Break</td>
<td>Technical Sessions</td>
</tr>
<tr>
<td>9:30AM</td>
<td>U.S. DOT PCB Training Course: Connected Vehicle 102</td>
<td>Technical Sessions</td>
<td>General Sessions</td>
<td>Break</td>
</tr>
<tr>
<td>10:00AM</td>
<td>U.S. DOT PCB Training Course: Connected Vehicle 102</td>
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<tr>
<td>12:00PM</td>
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</table>

www.lTSAnnualMeeting.org // #ITSAM
# Session Tracks

*Please note that not all Annual Meeting sessions are listed within the Session Tracks.*

## Commercial Vehicle and Freight Mobility
- **SIS01**: ITS for Freight Efficiency
- **SIS07**: Commercial Vehicle and Freight Mobility
- **TH01**: The Future of Freight Mobility: What are the Impacts of Automated Vehicles / Connected Vehicles?
- **TR01**: ITS Solutions to Truck Parking Problems
- **TS01**: Commercial Vehicle Performance

## Connected and Automated Vehicles
- **SIS02**: Should Automated Vehicles be Connected Vehicles?
- **SIS16**: The Privacy, Security, Liability and Acceptance of Connected and Autonomous Vehicles
- **SIS23**: Getting Ready for Automated and Connected Vehicles: What Should States Do
- **TS02**: Connected Vehicle Innovations
- **TS08**: Assessing Automated Vehicles

## Mobile Technology
- **SIS14**: Transforming Mobility Through Mobile Technology
- **TS03**: Mobile Technology Applications

## New and Emerging Topics
- **SIS03**: What Should I Do to Assure My Cyber Stuff is Safe in a Connected World?
- **SIS08**: Reauthorization: Bringing Innovation Policy to Transportation
- **SIS09**: The Intelligent Pitch: High-Tech Transportation Startups
- **SIS10**: The Wild West of Urban Mobility
- **SIS13**: Rebuilding Today’s Infrastructure To Use Tomorrow’s Technology
- **SIS17**: Next Steps for Big Data and Transportation
- **SIS21**: Role of Charitable Foundations in Developing and Deploying Intelligent Transportation Solutions
- **SIS24**: Innovative Technology Solutions for Accessible Transportation

## Safety
- **SIS15**: Opportunities and Challenges Facing Safe and Connected Automation
- **SIS18**: Using ITS to Improve Pedestrian and Bicyclist Safety
- **TS05**: Evaluating Safety Operations
- **TS09**: Collision and Wrong Way Driving Warning Systems
- **TS10**: ITS Safety Applications

## Shared Use Mobility and Transit
- **SIS06**: On the Cutting Edge: Latest Trends in Shared Mobility
- **SIS11**: Automated Transit Systems: From Morgantown to CityMobil
- **SIS27**: ITS and the Revolution in Urban Mobility
- **TS04**: The Intersection of Transit and Data
Sustainability

- **SIS05**: Transportation Funding and Financing
- **SIS12**: The Role of Infrastructure in Reducing Energy Consumption
- **SIS19**: Road Usage Charging: Is a Mileage-Based Tax the Answer to Financial Sustainability?
- **SIS20**: Emissions Reduction Strategies Using ITS

Transportation Systems Operations

- **SIS04**: ITS Bridge Applications: Operations, Safety, and Maintenance
- **SIS22**: Transportation Systems Operations
- **SIS25**: The Future of Integrated Corridor Management
- **SIS26**: TMC Operator Certification
- **TH02**: MAP-21 Performance Measures
- **TR02**: Implementing ITS Road Weather Strategies
- **TR03**: Implementing ITS Work Zone Strategies
- **TR04**: Development and Implementation of Integrated Corridor Management (ICM) Strategies
- **TS06**: Signal System Operations and Control Technologies
- **TS07**: Advancements in Transportation System Operations
- **TS11**: Enhancing Traveler Information
- **TS12**: Integrated Corridor Management
- **TS13**: Advances in Traffic Management
- **TS14**: Alternative Approaches for Transportation System Operations
General Information

Travel and Transportation Information

The following information can also be found online at www.ITSAnnualMeeting.org/travel

**U B E R**

Uber, the Official Transportation Option of the ITS America Annual Meeting & Expo, is offering new users a free ride up to a $20 value. **Sign up here:** http://get.uber.com/go/ITSAmerica.

**Uber**

UberX and UberXL are both available in the Pittsburgh region. Visit www.uber.com/cities/pittsburgh to learn more. Service is available by downloading the Uber app from the Apple App Store, Google Play or Windows Store.

**Taxi**

Yellow Cab is the local taxi service in Pittsburgh. Taxis wait outside of Door #4 (past the SuperShuttle counter) at the Pittsburgh International Airport. Passengers can simply go out to the curb and hail a cab. For a return trip, both hotels can arrange a pickup and often taxis are conveniently waiting in a queue out front.

**Approximate Rate:** $40.00 one way

**SuperShuttle®**

This ride sharing van service provides attendees a more cost efficient ground travel option. Upon arriving at the Pittsburgh International Airport, attendees should collect their luggage and proceed to the SuperShuttle ticket counter located in the Ground Transportation/Car Rental area in the center of the Baggage Claim level. Check in with a representative or a ticketing kiosk to receive a boarding pass before proceeding outside to the curb boarding zone located by door #4. Advance reservations are required for a return trip; recommended at least 24 hours in advance.

**Rate:** $24.00 one way, per person

**Reservations:** A $4.00 roundtrip discount applies to reservations made online, in advance, using Group Discount Code VYBE7 (valid from 5/25-6/7/15).

**Book online at:** http://groups.supershuttle.com/itsamerica.html

**Sedan and Limousine**

Upon arriving at Pittsburgh International Airport, the sedan or limousine driver will be waiting for you at the bottom of the escalator leading to the baggage claim, holding a sign with your name on it. Several sedan and limousine services are available including:

- **ExecuCar**
  A luxury private sedan that can accommodate up to 3 passengers.
  **Rate:** $63.00 one way
  **Reservations:** A reduced price of $60.00 one-way applies to reservations made online, in advance, using Group Discount Code VYBE7 (valid from 5/25-6/7/15).
  **Book online at:** http://groups.supershuttle.com/itsamerica.html

- **All Star Limousines**
  www.allstarlimos.com or 888.546.6161

- **CareyPittsburgh/Allegheny Limousines, Inc.**
  www.carey-alleghenylimo.com or 800.660.8671

- **Elite Coach Limousine, Inc.**
  www.elite-corporation.com or 800.488.7775

- **Regency Transportation Group, Ltd.**
  www.regencytransportation.com or 800.397.0071

**Parking**

Provide by Alco Parking Corporation, a 700-car parking garage with an 8’ clearance is available in the David L. Lawrence Convention Center. The entrances and exits are located on 10th Street and 11st Street on the eastside of the Center. A map of the parking garage can be found at www.alcoparking.com/downtown/convention-center-garage. Visa, MasterCard, American Express, and Discover are accepted at all pay stations, as well as exit gates.

**Daily Rates**

- 0 - 2 hours: $6.00
- 2 - 6 hours: $10.00
- 6 - 8 hours: $12.00
- 8 - 15 hours: $14.00
- 15 - 24 hours: $25.00

**Night Rates**

- After 4:00 p.m. parking is a flat fee of $5.00.

For additional parking options within a 15-minute walk of the David L. Lawrence Convention Center and real-time parking availability visit: www.ParkPGH.org.
Accommodation Information

The following information can also be found online at www.itsannualmeeting.org/travel/hotel-reservations

Room Reservations
The Omni William Penn Hotel is the official headquarters hotel for the 2015 ITS America Annual Meeting & Expo.

Registrants are responsible for making their own hotel reservations. Contact the hotel and identify yourself as an ITS America Annual Meeting attendee to ensure proper handling of your reservations and to receive the negotiated rate. Both hotels will send room confirmations directly to registrants. A limited number of rooms at the government rate are available on a first-come, first served basis and require Annual Meeting attendees to present a valid government identification card upon arrival. Registrants should consult with their hotel for special needs, check-in and check-out times, and cancellation policies. Do not submit hotel deposits with Annual Meeting registration fees.

---

Omni William Penn Hotel
530 William Penn Place // Pittsburgh, PA 15219

- **Reservations:** 1-800-THE-OMNI or 412.281.7100
- **Single/Double Room Rate:** $185 plus tax
- **Government Room Rate Single/Double:** $128 plus tax

---

DoubleTree by Hilton Hotel & Suites Pittsburgh Downtown
One Bigelow Square // Pittsburgh, PA 15219

- **Reservations:** 412.281.5800 or 1-800-222-TREE (8733)
- **Single/Double Room Rate:** $159 plus tax

---

Westin Convention Center Pittsburgh
1000 Penn Avenue // Pittsburgh, PA, 15222

- **Reservations:** 888.627.7053 or 412.281.3700
- **Single/Double Room Rate:** $209 plus tax
- **Government Room Rate:** Not Available

---

Reservation Cut-Off Date
Thursday, May 7, 2015 is the last day to reserve a room at both the Omni and Westin hotels. Attendees are strongly encouraged to make their reservations early. Each year hotels sell out weeks before the cut-off date. ITS America’s room blocks will only be held until Thursday, May 7, 2015.

---

HOURS OF OPERATION

Attendee Registration
The registration desk will be located in the David L. Lawrence Convention Center.

<table>
<thead>
<tr>
<th>Date</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sunday, May 31</td>
<td>8:00 a.m. – 4:30 p.m.</td>
</tr>
<tr>
<td>Monday, June 1</td>
<td>7:00 a.m. – 6:30 p.m.</td>
</tr>
<tr>
<td>Tuesday, June 2</td>
<td>7:00 a.m. – 6:00 p.m.</td>
</tr>
<tr>
<td>Wednesday, June 3</td>
<td>7:30 a.m. – 1:00 p.m.</td>
</tr>
</tbody>
</table>

Exhibitor Registration
Registration for exhibit booth personnel will be located in the David L. Lawrence Convention Center. Individuals must have a badge at all times to gain admission to the exhibit hall.

<table>
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<tr>
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</tr>
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<tr>
<td>Sunday, May 31</td>
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<td>Monday, June 1</td>
<td>10:30 a.m. – 6:30 p.m.</td>
</tr>
<tr>
<td>Tuesday, June 2</td>
<td>9:30 a.m. – 4:00 p.m.</td>
</tr>
</tbody>
</table>

Exhibit Hall
Lunch will be provided and refreshment breaks will be provided Monday and Tuesday in Exhibit Hall B.

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Exhibitor Move-In
Saturday, May 30: 8:00 a.m. – 4:30 p.m.
Sunday, May 31: 8:00 a.m. – 4:30 p.m.

Exhibit Hall Hours
Monday, June 1: 10:30 a.m. – 6:30 p.m.
Tuesday, June 2: 9:30 a.m. – 4:00 p.m.

Exhibitor Move Out
Tuesday, June 2: 4:00 p.m. – 8:00 p.m.
Wednesday, June 3: 8:00 a.m. – Noon

Press Room
The Press Room will be located in the David L. Lawrence Convention Center and available to credentialed media at the following times.

<table>
<thead>
<tr>
<th>Date</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
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</tr>
<tr>
<td>Wednesday, June 3</td>
<td>8:00 a.m. – 11:00 a.m.</td>
</tr>
</tbody>
</table>

Speaker Ready Room
Speakers and moderators may utilize the Speaker Ready Room onsite in the David L. Lawrence Convention Center throughout the ITS America Annual Meeting.

<table>
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<tr>
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</tr>
</thead>
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Registration Packages

All ITS Annual Meeting speakers and moderators must register for a full package or one day package to participate in the program. Name badges are required for admission to all sessions, events and the exhibit hall.

If you would like to make changes to your online registration, please log back into your record using your e-mail address and confirmation ID number. If you registered via fax or by mail, you will need to contact Experient directly at +1 866.299.2386 (toll free) or +1 301.694.5243 (international), or itsa@experient-inc.com.

Full Registration
This four day package for attendees, speakers and moderators includes admittance to Sunday’s State DOT CEO Roundtable, all sessions listed on the schedule, the exhibit hall, the exhibitors welcome reception, networking events, and Annual Meeting proceedings online. This package also includes a lunch voucher for Monday and Tuesday of the Annual Meeting.

One Day Registration
This package option for attendees, speakers and moderators includes admittance to all events listed on the schedule for one chosen day (unless otherwise noted), the exhibit hall and meal functions on that day only. Please note the exhibit hall is only open Monday, June 1 and Tuesday, June 2.

Exhibit Booth Personnel
This registration package includes admittance to the exhibit hall, and lunch in the exhibit hall Monday, June 1 and Tuesday, June 2 and the State DOT CEO Roundtable on Sunday evening and the opening and closing plenaries.

Expo Only
The Expo Only registration package includes admittance to the exhibit hall for one day only (Monday or Tuesday).

Full-Time Student
A special rate has been set for full-time college students to experience the ITS Annual Meeting. Students may not be employed full-time. A letter from your university documenting your enrollment as a full-time student must accompany the registration form and payment. This package includes admittance to all sessions and the exhibit hall. A lunch ticket is also included for each day (Monday and Tuesday).

One Day Student
A special one-day rate has been set for full-time college students to experience the ITS Annual Meeting. A letter from your university documenting your enrollment as a full-time student must accompany the registration form and payment. The One Day Student registration package includes the Annual Meeting attendee bag, admittance to all sessions on that particular day, the exhibit hall, and a lunch ticket.

Press
Registration for the 2015 ITS America Annual Meeting & Expo is free to all credentialed trade, business, and consumer reporters and industry analysts who work in the transportation, technology or business fields. Press badges permit entry into the exhibit hall and all program sessions.

Elected Officials, Legislators and Staff
This registration package includes admittance to all sessions, the exhibit hall, and lunch tickets for both Monday and Tuesday. This package requires valid identification when picking up credentials.

Accompanying Persons
The Accompanying Person registration package is intended for spouses, companions, and other non-participating persons. Colleagues and peers are not considered accompanying persons and must purchase a different registration package. Accompanying persons are permitted admittance to the opening and closing plenaries and the exhibit hall.

All of the following information is available online. Attendees can register online at www.ITSAnnualMeeting.org/register, or on-site beginning Sunday, May 31.

Registration continues on next page >
<table>
<thead>
<tr>
<th>Registration Type</th>
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</table>
Additional Registration Information

Meal Tickets
Tickets are required for all meal functions and are included in an attendee’s registration packet. Extra tickets for the Tuesday Networking Reception are sold on a first-come, first-served basis and are non-transferable and non-refundable. Tickets may be purchased at the registration desk until noon on the day of the event.

Special Dietary Requirements
Attendees with special dietary requirements can complete a special dietary requirement form at the registration desk until noon one day prior to the meal function. ITS America will make every attempt to accommodate your needs. Please remind your server that you have ordered a special meal and the specific requirements requested.

Transportation for Technical Tours
Buses board at the 10th Street cutout at the East Lobby, on the first floor of the David L. Lawrence Convention Center. Attendees need to arrive 15 minutes prior to the time listed on the schedule.

Technical Tours and Pre Event Workshops
Tickets for technical tours and pre event workshops will be included in registration packets.

Smoking
The David L. Lawrence Convention Center is a non-smoking facility.

Attire
The attire for the 2015 ITS America Annual Meeting and Exposition is business casual.

Age Policy
No one under the age of 18 will be admitted onto the exhibit hall floor.

Confirmations
All registrants will receive confirmations via e-mail within two weeks of receiving your completed form and payment.

Badges
All badges must be picked up on site. Please bring your printed confirmation letter with you to the David L. Lawrence Convention Center. It will have a bar code printed on it. All registration fees must be paid before badges can be picked up. Contact Experient Customer Services at +1 866.299.2386 (toll free) 301.694.5243 (international), or itsa@experient-inc.com if you have any questions.

Professional Development Hours
Attendance at the 2015 ITS America Annual Meeting entitles you to earn up to 25.5 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, executive, special interest, and plenary sessions you can attend at the Annual Meeting. For questions regarding PDH’s, contact Morgan Ouellette at mouellette@itsa.org.

Cancellation Policy
ITS Annual Meeting registration cancellations and refund request must be submitted in writing to itsa@experient-inc.com. If payment is by credit card, a refund will be issued to that card. A full refund, less $175 process fee, one day registrations full refund less a $75 processing fee will be issued for cancellation requests received by Tuesday, March 31, 2015. Requests received from April 1 through May 1 are subject to a 50% refund of your to registration fee. Exhibitor booth personnel registration cancellations are subject to a $75 processing fee. No refunds will be honored after Friday, May 1, 2015. Tour cancellation requests for Annual Meeting received by Friday, May 1 will receive a full refund without penalty. After that date, refunds will not be issued. The processing fee covers obligations incurred by ITS America and does not entitle the registrant to conference materials. All refunds will be issued after the event.

Substitution Policy
Substitution within the same organization for the same registration fee may be made by email, fax or mail through Friday, May 1, 2015. After that date all changes must be made on site.
To attend the 2015 ITS America Annual Meeting & Exposition, please complete parts 1 - 4 of this registration form and return it with full payment. Full payment must accompany all registrations or cannot be processed. Registration opens February 17, 2015 at Noon ET. Early registration rates are only available from February 17, 2015 through March 31, 2015. Each delegate must fill out a separate form. This form may be duplicated for additional registrants. Do not mail this form if you are registering online or by fax. Please type or print clearly. Online registration is now open at www.ITSAnnualMeeting.org/register.

Please note: In order to participate in the ITS America Annual Meeting & Expo, all official speakers and moderators must register for a full package or a one day package. All registrants will receive confirmations via e-mail within two weeks of receiving your completed form and payment.

Obtaining Registration Credentials
All registrants will need to check in at the ITS America Annual Meeting & Expo registration desk at the David L. Lawrence Convention Center to receive your badge and additional meeting materials. Please bring your confirmation letter with you to the David L. Lawrence Convention Center. All registration fees must be paid before badges can be picked up.

International Registrants
All International travelers planning to attend the 25th ITS America Annual Meeting & Expo will likely require a nonimmigrant visa for temporary stay in the U.S. International registrants should apply for their visa at least three months before they plan to begin their trip to the U.S. If you need a visa letter, please contact Patty Fusaro at 202.484.4847 or pfusaro@itsa.org for assistance.

How to Register:
Online: www.ITSAnnualMeeting.org/register

Questions: Contact Experient Customer Service at 800.310.7554 (toll free), 240.439.2554 (international) or ITSA@experient-inc.com.

Cancellation Policy
Cancellation requests must be submitted in writing to itsa@experient-inc.com. Please note that all refunds will be issued in the same format as payment was received. All cancellations will be processed and refunds distributed within 30 days of the close of the 25th ITS America Annual Meeting & Expo.

Requests received by March 31, 2015 are subject to a full refund, less a $175 processing fee, one day registrations full refund less a $75 processing fee. Requests received between April 1 and May 1, 2015 are subject to a 50% refund of your total registration fee. No refunds will be honored after May 1, 2015. Cancellation requests received by May 1, 2015 for technical tours, guest tours, workshops and special events will receive a full refund. Requests made after May 1, 2015 will not receive a refund.

PART I: Contact Information (please print)

☐ Mr. ☐ Ms. ☐ Dr. First Name __________________________________________

Last Name __________________________________________________________

Preferred name for Badge ____________________________ Job Title ____________________________

Organization Name __________________________________________________________

Organization Mailing Address ____________________________________________

City ____________________________________________ State/Province ____________________________________________

ZIP Code ____________________________________________ Country ____________________________________________

Telephone ____________________________ Fax ____________________________ E-Mail ____________________________

Full Name of accompanying person/guest (if attending) ☐ Mr. ☐ Ms. ☐ Dr.

Is this your first time attending an ITS America Annual Meeting & Expo? ☐ Yes ☐ No

In compliance with the Americans with Disabilities Act, I require specific aids or service at the event location. ☐ Audio ☐ Visual ☐ Mobile

Please indicate type of need(s). If yes, please attach a separate written description.

Do you have special dietary needs? ☐ Yes ☐ No If yes: ____________________________________________
### Part II: Registration Packages

<table>
<thead>
<tr>
<th>Registration Type</th>
<th>Standard April 1 – May 30</th>
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Part III: Technical Tours

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<thead>
<tr>
<th>Tour Name</th>
<th>Time</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>Downtown Pittsburgh Bike Tour</td>
<td>Sunday, May 31, 1:00 – 3:00 p.m.</td>
<td>$20.00</td>
</tr>
<tr>
<td>East Busway-East Liberty Connected Vehicle Test bed</td>
<td>Monday, June 1, 1:00 – 3:30 p.m.</td>
<td>$30.00</td>
</tr>
<tr>
<td>Western Regional Transportation Management Center</td>
<td>Tuesday, June 2, 1:00 – 4:00 p.m.</td>
<td>$30.00</td>
</tr>
<tr>
<td>Gateway Clipper Tour — Connected Waterways</td>
<td>Tuesday, June 2, 6:00 – 9:00 p.m.</td>
<td>$90.00</td>
</tr>
<tr>
<td>Carnegie Mellon University Autonomous Vehicle Demonstration</td>
<td>Wednesday, June 3, 8:00 – 10:30 a.m.</td>
<td>$30.00</td>
</tr>
</tbody>
</table>

Part IV: Ancillary Events, Meetings & Workshops

<table>
<thead>
<tr>
<th>Event Name</th>
<th>Time</th>
<th>Number of Tickets</th>
<th>Price</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S. DOT PBC Training Course: Connected Vehicle 102</td>
<td>Sunday, May 31, 10:00 a.m. – 2:30 p.m.</td>
<td></td>
<td>Gratis</td>
</tr>
<tr>
<td>ITS America State Chapters Strengthening Workshop</td>
<td>Sunday, May 31, 11:30 a.m. – 3:00 p.m.</td>
<td></td>
<td>$20.00</td>
</tr>
<tr>
<td>State Chapters Networking Reception</td>
<td>Sunday, May 31, 6:00 – 8:00 p.m.</td>
<td></td>
<td>$25.00</td>
</tr>
<tr>
<td>ITS America’s 25th Anniversary Reception</td>
<td>Tuesday, June 2, 5:30 – 7:00 p.m.</td>
<td></td>
<td>$50.00*</td>
</tr>
</tbody>
</table>

(*Already included in a full registration packet and Tuesday packet)

Part V: Payment

Registration cannot be processed without full payment. All fees are payable in U.S. dollars only by check, bank transfer or credit card. If payment is made from outside the U.S., the registrant must bear all bank charges. Registration forms received without payment will be returned.

| Part II: Registration Package | $ ______________ |
| Part III: Technical Tours     | $ ______________ |
| Part IV: Ancillary Events, Meetings & Workshops | $ ______________ |
| TOTAL FEES                    | $ ______________ |

Method of Payment

☐ Check (payable to “ITS America”) ☐ Bank Transfer ☐ VISA ☐ American Express ☐ MasterCard

Card Number ___________________________ Exp. Date ___________________________
Name as it appears on the card ___________________________
City ___________________________ State/Province ___________________________ Zip/Postal Code ___________________________ Country ___________________________
Signature (required for processing) ___________________________ Date ___________________________

☐ I understand that my credit card will be charged as soon as this registration form is processed. This is to certify that I hereby accept your registration policies.

Bank Transfer Instructions Please remit payment to:

Bank: Capital One Bank
Bank Address: 1100 New Jersey Avenue, Washington, D.C. 20003
Account Name: Intelligent Transportation Society of America
Account Number: 1360001322
Routing Number: 255071981
SWIFT: HIBKUS44

Information Disclosure: ITS America and the other ITS America Annual Meeting & Expo organizers may use the information that you provide on this registration form to inform you about future ITS America Annual Meeting & Expo events that we feel may be of interest to you. Information provided on this form may be used to contact you again via email, regular mail or telephone. You may choose to opt out of information collection by checking the following box.

☐ No, I do not wish to receive information about future ITS America Annual Meeting & Expo events.

Online registration is now open at www.ITSAnnualMeeting.org/register
The Intelligent Transportation Society of America (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 system through innovative ITS solutions.

For more information about the ITS America Leadership Circle, visit TSA.org/leadershipcircle or contact Sabrina Sussman at 202.721.4226.

2015 Priorities

- Evolving Opportunities in Transportation through Big Data Analytics
- Advance Vehicle-to-Infrastructure Deployment
- Promote the Safe, Efficient, and Smart Movement of Goods
- Smart Use of Assets and Capacity: Utilize Existing Technologies and Infrastructure
- Elevate our Impact: Outreach at the Federal, State, and Local Levels
- Next Transport: Understanding Thresholds of Possibility for Connected, Autonomous, and Electric Vehicles

Learn more: www.ITSAnnualMeeting.org/Roundtable
Special Features

State DOT Officials Roundtable

Sunday, May 31, 4:00 – 6:00 p.m.

Join us Sunday evening before we officially kick-off the 2015 ITS Annual Meeting to hear firsthand from State Department of Transportation (DOT) officials as they discuss, in an open forum, the issues that matter most to the ITS community including deployment strategies and funding priorities to develop and maintain our state and local transportation networks by utilizing technology effectively. Now a regular feature of the ITS Annual Meeting, this unique roundtable is open to all attendees.

Co-hosted by

Moderator
Bud Wright, Executive Director, AASHTO

Speakers
Malcolm Dougherty, Director, California DOT (Caltrans)
Paul Trombino III, Director, Iowa DOT
Kirk Steudle, Director, Michigan DOT
Leslie S. Richards, Acting Secretary, Pennsylvania DOT
Carlos Braceras, Executive Director, Utah DOT
John Cox, Director, Wyoming DOT
Additional Speakers to be Announced

Learn more: www.ITSAnnualMeeting.org/Roundtable

The Omni William Penn Hotel
Emergency Response Day

Tuesday, June 2, 9:00 a.m. – 5:00 p.m.

Emergency Response (ER) Day has been an ITS Annual Meeting tradition since 2011 and continuing to engage emergency responders is an integral part of ITS America’s vision to save lives through the deployment of Intelligent Transportation Systems. Each year the ITS Annual Meeting brings together emergency responders and transportation industry professionals to highlight specific technology solutions that protect travelers and the public safety personnel who serve them.

Emergency Response Day 2015 will kick off with regional emergency response professionals demonstrating the Life Cycle of Traffic Incident Management (TIM) and engage students and young professionals on how application development can solve communications and information problems in the world of TIM from planning to debriefing, followed by a ‘speed dating’ session where first responders will help form the student teams for the afternoon Data Jam session around different emergency response modes.

After lunch, the Data Jam will commence where responders, college students and ITS professionals will work together to develop application ideas to solve major data, communications and safety issues in the world of Traffic Incident Management (TIM) and emergency response. At the end of the day, the teams of students will be evaluated and the winning team will be invited to the Emergency Response Symposium, held by ITS New York and The Transportation Safety Advancement Group in September 2015 to present their application idea to industry leaders.

All ITS Annual Meeting attendees are welcome to participate in the Emergency Response Day activities and sessions. Registration is free for emergency responders who attend in uniform and students who are ONLY participating in ER Day activities taking place, Tuesday, June 2.

Learn more: www.ITSAnnualMeeting.org/ERday
## Emergency Response Day Schedule at a Glance

<table>
<thead>
<tr>
<th>Time</th>
<th>Tuesday, June 2</th>
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<tbody>
<tr>
<td>9:00AM</td>
<td><strong>Welcome</strong> An overview of the day’s events will be provided to first responders, students and other participants and outline the Data Jam process.</td>
</tr>
<tr>
<td>9:30AM</td>
<td><strong>Traffic Incident Management (TIM) in Action</strong> Emergency responders will demonstrate the Life Cycle of Traffic Incident Management (TIM) process from planning, the incident occurring, to the debrief, with a focus on where data and new applications could assist first responders.</td>
</tr>
<tr>
<td>10:00AM</td>
<td><strong>Meet &amp; Greet First Responders</strong> Speed date your way through the emergency response world by interacting with first responders from all disciplines.</td>
</tr>
<tr>
<td>10:30AM</td>
<td><strong>Choose Your Response Mode</strong> Students and Annual Meeting participants taking an active role in the Data Jam will choose the response mode where their interested party is located and get aquatinted with the group.</td>
</tr>
<tr>
<td>11:00AM</td>
<td>Lunch Served</td>
</tr>
<tr>
<td>11:30AM</td>
<td><strong>Brainstorming Session of TIM and ER Application Ideas</strong></td>
</tr>
<tr>
<td>12:00PM</td>
<td>Lunch Served</td>
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<tr>
<td>1:00PM</td>
<td><strong>1st Pitch</strong>: Each team will pitch 3 - 5 ideas. Expert panel to select focus area.</td>
</tr>
<tr>
<td>2:00PM</td>
<td><strong>Development of Chosen TIM or ER Application Idea</strong></td>
</tr>
<tr>
<td>3:00PM</td>
<td><strong>Final Presentations</strong></td>
</tr>
<tr>
<td>4:00PM</td>
<td><strong>Announcement of Winning Application Idea and Closing Remarks</strong></td>
</tr>
</tbody>
</table>
Plenary Sessions

Opening Plenary: Exploring Bridges to Innovation

Monday, June 1, 9:00 – 10:30 a.m.

The Opening Plenary of the 2015 ITS Annual Meeting will be held Monday morning in the Spirit of Pittsburgh Ballroom of the David L. Lawrence Convention Center. Join us as we welcome attendees to Pittsburgh and set out to explore the bridges to innovation. Google’s Director of Self-Driving Cars, Chris Urmson, will provide a keynote speech on “Realizing Self-Driving Vehicles.”

The Opening Plenary will also feature welcoming remarks from our organizing committee chairman, elected officials and other transportation leaders. ITS America’s Best of Intelligent Transportation Systems (ITS) awards ceremony will also take place recognizing the most innovative projects and influential achievements over the past year in the high-tech transportation community.

Keynote Speaker
Chris Urmson
Director, Self-Driving Cars, Google[x]

Speakers
Daniel G. Corey, P.E., Chairman, Pittsburgh Organizing Committee
ITS America President and CEO
Kirk Steudle, Director, Michigan DOT and Chairman, ITS America Board of Directors
Federal, State and Local Officials
Additional Speakers to be Announced

Realizing Self-Driving Vehicles

Keynote Speaker
Chris Urmson
Director, Self-Driving Cars, Google[x]

Chris Urmson leads Google’s self-driving car program where the team’s vehicles have driven over three quarters of a million miles. Prior to joining Google, Chris was on the faculty of the Robotics Institute at Carnegie Mellon University where his research focused on motion planning and perception for robotic vehicles. During his time at Carnegie Mellon, he worked with house size trucks, drove robots around in deserts, and served as the Director of Technology for the team that won the 2007 DARPA Urban Challenge. He earned his PhD in 2005 from Carnegie Mellon and his B.Sc. in Computer Engineering from the University of Manitoba in 1998.
U.S. Department of Transportation Plenary

Tuesday, June 2, 2:00 – 3:15 p.m.

This special plenary session will feature senior officials from the U.S. Department of Transportation and include a discussion around Beyond Traffic: a 30-Year Outlook on the Future of Our Nation's Infrastructure and the latest developments in federal ITS programs.

**Speakers**

Victor Mendez, Deputy Secretary of Transportation, U.S. DOT

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

Mark R. Rosekind, Administrator, National Highway Traffic Safety Administration, U.S. DOT (Invited)

Gregory G. Nadeau, Acting Administrator, Federal Highway Administration, U.S. DOT (Invited)

Therese McMillan, Acting Administrator, Federal Transit Administration, U.S. DOT (Invited)

Scott Darling, Acting Administrator, Federal Motor Carrier Safety Administration, U.S. DOT (Invited)

Paul N. Jaenichen, Administrator, Maritime Administration, U.S. DOT (Invited)

Richard McKinney, Chief Information Officer, Office of the Secretary, U.S. DOT (Invited)

Plenary Sessions continues on next page >
Plenary Sessions

Closing Plenary: The Value of Partnerships for Innovation

Wednesday, June 3, 11:00 a.m. – 12:15 p.m.

The Closing Plenary of the 2015 ITS Annual Meeting will feature Uber’s Senior Vice President of Policy and Strategy David Plouffe as the keynote speaker followed by a panel discussion on the importance of partnership for innovation. Leaders from the private, public and academic sectors will come together to discuss the future of transportation innovation, and the challenges and opportunities that lie ahead. With a particular focus on the Pittsburgh region, this session will highlight exciting projects and partnership that embody the spirit of advancement. Join us as we celebrate the successful conclusion of the 25th Annual Meeting, and look ahead to future bridges of innovation.

Keynote Speaker

David Plouffe
Senior Vice President of Policy and Strategy, Uber

David Plouffe is widely referred to as the “architect” of President Obama’s two presidential campaign victories. After serving as the campaign manager in the 2008 presidential election, Plouffe was an outside advisor to the President since his first day in office. He served inside the White House as Senior Advisor to the President from 2011-2013.

Plouffe has managed campaigns at all levels of politics, served as an award-winning producer of television advertisements, served as a consultant to leading Fortune 500 companies and has been a ubiquitous presence on national news shows.

In September 2014, Plouffe joined Uber as Senior Vice President of Policy and Strategy. Plouffe has won plaudits for the use of technology and pioneering new applications, his message development and discipline, his management skills and his focus and competitiveness.

The Obama-Biden presidential campaign and Plouffe were awarded the Titanium and Integrated Grand Prix Awards from the Cannes International Advertising Festival (2009). The campaign won for the effort’s digital savvy, its success in community building and its willingness to allow the Obama brand to be created by consumers rather than top-down communications mandates.

In 2010, Plouffe was number 4 on Newsweek’s list of “New Thought Leaders,” and The Daily Beast named him as one of the “25 Smartest People of the Decade.” GQ named Plouffe in 2012 the third most powerful person in Washington.

Plouffe is the author of The New York Times best seller, The Audacity to Win: The Inside Story and Lessons of Barack Obama’s Historic Victory and has been a Contributor for ABC News and Bloomberg Television. In 2013 he was inducted into The American Association of Political Consultants’ Hall of Fame.

Moderator
To be Announced

Speakers
Trish Plonski, Senior Vice President
Business Development, Strategy
and M&A, Xerox

John Bares, Uber Technologies, Inc.

Audrey Russo, President and CEO,
Pittsburgh Technology Council

Dr. Subra Suresh, President,
Carnegie Mellon University (Invited)
TH01 – The Future of Freight Mobility: What are the Impacts of Automated Vehicles/Connected Vehicles?

Monday, June 1, 11:00 a.m. – 12:15 p.m.

Session Track: ■ Commercial Vehicle and Freight Mobility

The AASHTO Subcommittee on Transportation Systems Operations and Management (STSMO) Technical Working Group on Systems Operations Strategies and ITS America are cosponsoring a town hall session on the future of freight mobility, including impacts from the implementation of automated and autonomous vehicles and connected vehicles. Speakers will include both public sector and industry representatives.

Co-hosted by

AASHTO

ITS America

Speakers
Karen Rasmussen, President & CEO, HELP Inc.
Malcolm Dougherty, Director, California DOT (Caltrans)
Randell H. Iwasaki, P.E., Executive Director, Contra Costa Transportation Authority
John Nisbet, Director and State Traffic Engineer, Traffic Operations Division, Washington DOT
Gary Euler, Senior Engineering Manager, Parsons Brinckerhoff

TH02 – MAP-21 Performance Measures

Monday, June 1, 2:00 – 3:15 p.m.

Session Track: ■ Transportation Systems Operations

The AASHTO Subcommittee on Transportation Systems Operations and Management (STSMO) Technical Working Group on Performance Measures and ITS America are cosponsoring a town hall session on MAP-21 Performance Measures as pertinent to Transportation Systems operations and management. Speakers will include both public sector and industry representatives.

Co-hosted by

AASHTO

ITS America

Speakers
Paul Trombino III, Director, Iowa DOT
John Barton, Deputy Executive Director and Chief Engineer, Texas DOT
Jeffrey Lindley, Associate Administrator for Operations, Federal Highway Administration, U.S. DOT
Phil Silver, Director, Business Development, Urban Insights Associates
Tony Kratofil, Metro Region Engineer, Michigan DOT
Eric-Mark Huitema, Global Manager Smarter Transportation, IBM (Invited)
ES01 – The National Operations Center of Excellence and the Future of TSM&O Research

Tuesday, June 2, 8:00 – 9:15 a.m.

The National Operations Center of Excellence (NOCoE), a one-stop shop for transportation systems management and operations (TSM&O), launched in January of 2015. Under the leadership of Executive Director, Dennis Motiani, the Center provides needed support and information to the growing community of professionals at all levels, from policy makers and mid-level managers to emergency responders, all of whom are working to make travel times for more reliable, reduce overall congestion, and, ultimately, improve the experience of the traveling public. Learn more by attending this session, and visit the website — www.transportationops.org — includes case studies, a knowledge center, links to key sites, discussion forums, and a comprehensive calendar. The website was developed through the second Strategic Highway Research Program (SHRP2). The NOCoE is a collaboration of the American Association of State Highway and Transportation Officials (AASHTO), the Institute of Transportation Engineers (ITE), and the Intelligent Transportation Society of America (ITS America) with support from the Federal Highway Administration (FHWA).

Sponsored by

Moderator
King Gee, Director of Engineering and Technical Services, AASHTO (Invited)

Speakers
Dennis Motiani, Executive Director, National Operations Center of Excellence
John Halikowski, Director, Arizona DOT
Galen McGill, ITS Manager, Oregon DOT
Harry Voccola, Corporate Transportation Consultant, HERE
Jeffrey Lindley, Associate Administrator for Operations, Federal Highway Administration, U.S. DOT

ES02 – Legacy Cities

Tuesday, June 2, 3:45 – 5:00 p.m.

Across the United States, Legacy Cities are undergoing dramatic revitalization to face the challenges of population loss, industrial decline and aging infrastructure, all while improving quality of life for their residents. Pittsburgh, like many other cities, is working to reinvent itself using smarter infrastructure investments, technology solutions and private investment. Panelists will discuss how Legacy Cities are working to utilize existing infrastructure and technologies while preparing for the future, and how they can learn from each other to strengthen their ability to manage change.

Sponsored by

Moderator
K.K. Saxena, Principal and Senior Vice President, Kimley-Horn & Associates

Speakers
Dave Roger, President, Hillman Foundation
Cherie Fuzzell, CEO, Parkmobile
Speaker from Verizon
Barry Pelletteri, Chief Information Officer and Head of Advanced Traffic Management Program, New Jersey Turnpike Authority
ES03 – The Role of Transportation in Smart and Connected Cities

Wednesday, June 3, 8:00 – 9:15 a.m.

Population growth, aging infrastructure, and rising costs are placing pressure on city governments to innovate in order to offer the services that residents demand. The proliferation of Internet-enabled devices and sensors provides an opportunity for cities to leverage advances in information and communications technologies to meet these strategic challenges. In the future, the transportation infrastructure will play a significant role in making cities smarter and more efficient, as well as safer and more navigable. This session will discuss the roles of data analytics, data sharing, and other technological advancements that can serve as conduits for smart cities to address the long-term challenges they face. Panelists will focus on how intelligent transportation systems are contributing to the overall livability, workability, and sustainability of a city.

Moderator
Dean Garfield, President and CEO, Information Technology Industry Council (ITI) (Invited)

Speakers
Larry Yermack, Strategic Advisor, Cubic Transportation Systems
Alice Tornquist, Vice President, Qualcomm
Marc Alexander, Director – Transportation Solutions Division, Intel Corporation (Invited)
Andrew Moore, Dean, School of Computer Science, Carnegie Mellon University

ES04 – The Future of Connected Vehicles

Wednesday, June 3, 9:30 – 10:45 a.m.

Over the past decade, significant public and private investment has been made in connected vehicle technology research and development. These technologies and related applications offer promising solutions for transportation safety, mobility, and the environment. Yet, significant institutional and technical challenges continue to pose barriers to widespread deployment, and the risk of technological disruption increases with time. New vehicles now offer Wi-Fi, 4G, and LTE connectivity options, along with sensors and autonomous features that support safety, mobility and driver convenience. The role of Dedicated Short Range Communications (DSRC) and future communications options in providing connected vehicle solutions will be explored during this session. The panelists will discuss their vision of the future of connected vehicles and how scalable implementation can be achieved to realize the safety, mobility, and environmental benefits of vehicle connectivity.

Moderator
Jim Barbaresso, Vice President and National Practice Leader, Intelligent Transportation Systems, HNTB Corporation

Speakers
Rich Biter, Assistant Secretary, Florida DOT
Gary Smyth, Director, Powertrain Systems Research Lab, General Motors Corporation
Peter Sweatman, Director, University of Michigan Transportation Research Institute
Drue Freeman, Senior Vice President for Global Automotive Sales & Marketing, NXP Semiconductors
SIS01 – Improving the Nation’s Freight System through Technology

Monday, June 1, 12:30 – 1:45 p.m.

Session Track: ■ Commercial Vehicle and Freight Mobility

The United States economy is centrally dependent on the efficient movement of goods across the nation’s transportation infrastructure. While throughput has steadily increased over the past decades—pushing the capacity of the system—public investment necessary for proper maintenance and improvement, has lagged. This session will investigate how technology is being applied to increase freight movement efficiency given these constraints. Cases from large ports, inland waterways, and the City of Pittsburgh will be discussed.

Organizer
Sean Murphy, Technical Program Specialist, ITS America

Moderator
To be Announced

Speakers
Jonathan Kessler, Co-Founder and CEO, Cargomatic
Gary Carlin, Director, Business Development, Public Sector, INRIX
Speaker from Pittsburgh
Speaker from the American Association of Port Authorities

SIS02 – Should Automated Vehicles be Connected Vehicles?

Monday, June 1, 12:30 – 1:45 p.m.

Session Track: ■ Connected and Automated Vehicles

We can all envision a breadth of possible automated vehicle deployment paths, some of which evolve from current advanced driver assistance systems and others which leverage Connected Vehicles. Does the form of a deployable automated vehicle depend on personal mobility and/or societal needs? Maybe the driving issue is the capability and widespread availability of certain technologies? Is there one right answer? This session’s expert panel will present their viewpoints to inform and perhaps change our ideas of how automated vehicles might be deployed on our nation’s roads.

Organizer & Moderator
Jim Misener, Director of Technical Standards, Qualcomm Technologies, Inc.

Speakers
Wei-Bin Zhang, Research Engineer and Program Manager, California PATH, UC Berkeley
Osman D. Altan, Research Transportation Specialist, Office of Operations R&D, Federal Highway Administration, U.S. DOT
Chris Borroni-Bird, Vice President, Qualcomm Technologies, Inc.
Speaker to be Announced
SIS03 – What Should I Do to Assure My Cyber Stuff is Safe in a Connected World?

Monday, June 1, 12:30 – 1:45 p.m.

Session Track: ■ New and Emerging Topics

Cyber crimes, cyber mischief, and cyber attacks are real threats to our critical ITS transportation infrastructure in a connected world. We are experiencing more breaches of our computer systems, data bases, networks, and end points (cameras, smart devices, signals, etc.). Examples include recent headlines about government and corporate attacks that compromised personal customer information, defaced military social media sites, released proprietary and embarrassing emails, potential hacks to control connected vehicles, and electronic message signs rewritten with humorous or obscene communications for motorists. These incidents and headlines erode the public’s confidence in our intelligently connected transportation systems. This session will look at guidance for transportation operators and ways to make their systems more secure and raise the public’s confidence in the security of the our connected systems.

Organizer & Moderator
C. Douglass Couto, Independent Consultant

Speakers
James Cebula, Manager, Cyber Risk and Resilience Team, Carnegie Mellon University Software Engineering Institute (SEI)
Ray Resendes, Executive Director, National Capitol Region at Virginia Tech Transportation Institute
Ryan Williams, Senior Systems Engineer, Parsons Brinckerhoff
FHWA Speaker to be Announced

SIS04 – ITS Bridge Applications: Operations, Safety, and Maintenance

Monday, June 1, 12:30 – 1:45 p.m.

Session Track: ■ Transportation Systems Operations

The aging infrastructure of our nation continues to be a major concern. With funding constraints, we look for opportunities to improve traffic operations and safety without the need for capacity improving bridge replacement projects. ITS solutions on or near bridges can be utilized to maximize the efficiency of traffic operations, reduce the cost of routine maintenance, and improve inclement weather response. This increased efficiency allows for improved system operations within fiscally constrained budgets. This session focuses on the challenges and opportunities of achieving these goals as related specifically to ITS bridge applications.

Organizer & Moderator
Andy Rebovich, Traffic Engineer, Michael Baker International

Speakers
Dennis Plitt, Senior Project Manager/Assistant Program Manager, Michael Baker International
Rakesh Sharma, Project Manager, HNTB Corporation
David Hernandez, Senior Business Development Manager, Kapsch TrafficCom
Jeffrey Purdy, Associate Vice President, Pennoni Associates Inc.
SIS05 – Transportation Funding and Financing

Monday, June 1, 12:30 – 1:45 p.m.

Session Track: ■ Sustainability

As Congress and the Obama Administration work to avert another fiscal cliff for the Highway Trust Fund, policymakers are tasked with coming up with a long-term, sustainable funding source for the nation’s transportation future while leveraging private sector investment and encouraging innovative financing alternatives. This session will explore traditional and innovative funding mechanisms including public private partnerships, tolling, credit and grant programs, and policies and regulations that impact infrastructure development and operation.

Organizer
Paul Feenstra, Senior Vice President for Government and External Affairs, ITS America

Moderator
To be Announced

Speakers
Speakers to be Announced

SIS06 – On the Cutting Edge: Latest Trends in Shared Mobility

Monday, June 1, 12:30 – 1:45 p.m.

Session Track: ■ Shared Use Mobility and Transit

Get a front row seat to a discussion with industry leaders on the shared-use mobility trends to watch this coming year, including point-to-point carsharing, on-demand private shuttle services, integrated mobile apps and more. Don’t miss this chance to hear leading innovators give their perspectives on the latest mobility developments, the evolution of the transportation industry and the challenges that still remain, including integration with transit, effective use of street space and blending service with paratransit.

Organizer & Moderator
Sharon Feigon, Executive Director, Shared Use Mobility Center (SUMC)

Speakers
Kaye Ceille, President, Zipcar
Joseph Kopser, CEO/Founder, RideScout
Ryan Rzepecki, CEO/Founder, Social Bicycles
Jennifer Krusius, Pittsburgh General Manager, Uber Technologies, Inc.
SIS07 – The Benefits are Real: Safety Technology and Commercial Vehicles

Monday, June 1, 3:45 – 5:00 p.m.

Session Track: ■ Commercial Vehicle and Freight Mobility
Traffic accidents featuring commercial vehicles are likely the most dangerous and expensive types of incidents encountered on the nation’s surface transportation infrastructure. Growing adoption of certain safety technologies among carriers may help to alleviate these costly and, in some cases, deadly accidents. This session will explore how technologies such as forward collision warning and blind spot detection can help improve safety outcomes on commercial vehicles and an appropriate policy environment to encourage their deployment.

Organizer
Sean Murphy, Transportation Program Specialist, ITS America

Moderator
To be Announced

Speakers
Alan Korn, Director, Advanced Brake Systems Integration, Meritor WABCO
Richard Easley, President and CEO, E-Squared Engineering
John Woodroffe, Research Scientist and Director, Commercial Vehicle Research and Policy Program, Head, Vehicle Safety Analytics, University of Michigan Transportation Research Institute (UMTRI)
Speaker to be Announced

SIS08 – Reauthorization: Bringing Innovation Policy to Transportation

Monday, June 1, 3:45 – 5:00 p.m.

Session Track: ■ New and Emerging Topics
The current federal surface transportation authorization, MAP-21, expires on May 31, 2015, challenging Congress and the Obama Administration to come up with funding to stabilize the Highway Trust Fund and pay for a long-term reauthorization bill that will address today’s needs while creating a safer, smarter, more efficient and sustainable transportation system for the future. Numerous ideas have been put on the table, but finding a politically viable, sustainable and ideally user-based source of funding that does more than offer a short-term patch has remained elusive. Meanwhile, technological advances are not only offering new financing alternatives, but are also helping transportation agencies improve highway safety, manage traffic, improve system performance, and optimize existing capacity even in tight budget environments. This session will address how innovation is modernizing the nation’s transportation future, and what can be done in the next transportation bill to encourage more technology-based solutions.

Organizer
Paul Feenstra, Senior Vice President for Government and External Affairs, ITS America

Moderator
To be Announced

Speakers
Speakers to be Announced
SIS09 – The Intelligent Pitch: High-Tech Transportation Startups

Monday, June 1, 3:45 – 5:00 p.m.

Session Track: ■ New and Emerging Topics

Leading investors from the high-tech transportation industry will hear pitches from five innovative startups that are changing the way we move. Entrepreneurs selected from the Entrepreneurial Village will present their innovations and business plans to the panel of investors, who will then each get the chance to ask questions and provide feedback. The Intelligent Pitch will pit startups against each other to declare one winner.

Organizer & Moderator
Sabrina Sussman, Vice President for Membership and Development, ITS America

Judges
John R. Peracchio, Managing Director, Peracchio & Company
Christopher J. Thomas, Founder and Partner, Fontinalis Partners
David Zipper, Managing Director, 1776 Ventures

SIS10 – The Wild West of Urban Mobility

Monday, June 1, 3:45 – 5:00 p.m.

Session Track: ■ Transportation Systems Operations

In the last five years, Urban Mobility has undergone a series of industry disruptions unlike anything seen since the advent of subways. The combined impact of 1) mobility start-ups, 2) bike sharing/lanes, 3) urbanization led by Millennials, and 4) mobile payments has changed the way we get around. In this largely unregulated market, we have witnessed the occasional skirmishes. How will mobility continue to evolve? Will the future transportation infrastructure be primarily digital? How can local governments create some semblance of order, especially with driverless cars just around the corner? Hear from private and public players on the front lines.

Organizer
David Cummins, Senior Vice President and Managing Director, Xerox

Moderator
Christopher Holmes, Vice President, Palo Alto Research Center

Speakers
Matt George, CEO, Bridj
Emily Castor, Director of Community Relations, Lyft
Adrian Guan, Senior Technical Programs Specialist, ITS America
Larry Stevenson, Director of Licensing, Denver Taxicab Commission
SIS11 – Automated Transit Systems: From Morgantown to CityMobil

**Monday, June 1, 3:45 – 5:00 p.m.**

**Session Track:** ▶ Shared Use Mobility and Transit

35 years ago, the first automated transit system went into operation in Morgantown, West Virginia. Today, there are multiple demonstrations of automated transit systems, including CityMobil2, and concepts under development, including New Jersey Transit’s aTaxi. This special interest session shall explore the lessons learned since the early automated transit systems went into service. Further, it will cover the implications of and impacts resulting from operating automated transit systems.

**Organizer**
Carol Schweiger, Independent Consultant

**Moderator**
Gregg Letts, ITS Project Manager, AECOM

**Speakers**
Alain L. Kornhauser, Professor, Operations Research & Financial Engineering, Director, Transportation Program, Faculty Chair, Princeton Autonomous Vehicle Engineering
J. Sam Lott., Senior Vice President, Kimley-Horn and Associates, Inc.

SIS12 – The Role of Infrastructure in Reducing Energy Consumption

**Tuesday, June 2, 8:00 – 9:15 a.m.**

**Session Track:** ▶ Sustainability

Despite the ever-increasing popularity and performance of alternative fuel vehicles, road vehicles continue to account for a significant portion of the entire amount of energy consumed in the U.S. What roles might infrastructure play in reducing the amount of energy consumed by road vehicles in the U.S. transportation sector? This session will highlight some of the most promising areas of innovation, including connected vehicles, electric vehicle charging infrastructure, wireless charging for public transit vehicles, smartphone apps for improving travel options, and smart parking applications.

**Organizer**
Anthony Shaw, Technical Program Specialist, ITS America

**Moderator**
To be Announced

**Speakers**
Speakers to be Announced
### SIS13 – Rebuilding Today’s Infrastructure To Use Tomorrow’s Technology

**Tuesday, June 2, 8:00 – 9:15 a.m.**

**Session Track:** New and Emerging Topics

In the latest Report Card for Pennsylvania’s Infrastructure, the Commonwealth barely earned a C- G.P.A. with both age and a lack of maintenance causing a wave of clear infrastructure replacement needs. However, the needs behind Pennsylvania’s D+ bridges, D-roads, and D transit are also opportunities to rebuild with an eye to the future. The work to rebuild transportation systems both in Pennsylvania and throughout the country is just beginning, but a key question remains—how will we rebuild stronger, more sustainable and connected transportation systems that can leverage tomorrow’s technology?

**Organizer & Moderator**
Gregory Scott, Senior Project Manager, Buchart Horn, Inc. (ASCE Pittsburgh)

**Speakers**
Jeffrey E. Purdy, Associate Vice President, Pennoni Associates Inc. (ASCE Philadelphia)
Kurtis McBride, CEO and Co-Founder, Miovision

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### SIS14 – Transforming Mobility through Mobile Technology

**Tuesday, June 2, 8:00 – 9:15 a.m.**

**Session Track:** Mobile Technology

Advances in mobile technology and applications are transforming transportation mobility. The focus of this special session is on the opportunities and challenges that technology brings to the transportation industry and users. The latest applications provide new methods for providing information and guidance to all travelers including pedestrians, bicyclists, and transit users. It creates new opportunities to manage and model traffic through social media, mobility analytics and rich data. What are the challenges of mobile transformation to transportation and how can they be addressed?

**Organizer**
Faisal Saleem, ITS Branch Manager & SMARTDrive Program Manager, Maricopa County DOT

**Moderator**
Jennifer Toth, Director & County Engineer, Maricopa County DOT

**Speakers**
Jim Misener, Director Technical Standards, Qualcomm Technologies, Inc.
Larry Head, Director (Interim) Atlas Research Center and Associate Professor, Systems and Industrial Engineering, University of Arizona
Ramayya Krishnan, Dean and Professor of Management Science and Information Systems, Carnegie Mellon University
Doug Gettman, ITS Technology Group Leader, Kimley-Horn and Associates, Inc.
SIS15 – Designing Safe, Useful, and Trustworthy Automated Vehicles

**Tuesday, June 2, 8:00 – 9:15 a.m.**

**Session Track:** ■ Safety

This session will present key insight from leading industry and academic members on the opportunities and challenges facing connected and automated vehicles. The session will cover human factor issues regarding operator trust in automation, the user needs of connected automation, a critical review of the promise for increased mobility, and an overview of recent activity in the commercialization of connected and automated vehicle technology.

**Organizer & Moderator**
Gregory M. Fitch, Research Scientist, User Experience Group Leader, Center for Automated Vehicle Systems, Virginia Tech Transportation Institute

**Speakers**
Aaron Steinfeld, Associate Research Professor, Robotics Institute, Carnegie Mellon University
Christopher Andrews, Leader of Emerging Technologies, Visteon Corporation
Steve Boyd, Co-Founder & VP External Affairs, Peloton Technology
Mohammad Poorsartep, Project Manager, Connected Transportation Initiative, Texas A&M Transportation Institute
Fernando Mujica, Director, Autonomous Vehicles Lab, Kilby Labs, Texas Instruments

SIS16 – The Privacy, Security, Liability and Acceptance of Connected and Autonomous Vehicles

**Tuesday, June 2, 3:45 – 5:00 p.m.**

**Session Track:** ■ Connected and Automated Vehicles

Automobile manufacturers claim that technology associated with self-driving vehicles will be ready within the next five years. Yet, as on-road deployment of driverless cars draws near, many questions remain unanswered regarding the privacy, security, and liability of these vehicles. Who owns the data produced by the vehicle? What happens if a car is hacked? Who is liable in the case of a collision? In this session, we will address the security implications and other public concerns about connected and automated vehicles in an effort to better understand the regulations needed prior to wide-scale deployment.

**Organizer**
James Little, Director of Program Performance, Federal and Civil Business Unit, TASC, Inc. & Ron Maree, Senior Program Manager, TASC, Inc.

**Moderator**
Carlos A. Ortiz, Vice President of Intelligent Transportation Systems/Traffic Engineering/Public Works, RBF Consulting, a Company of Michael Baker International

**Speakers**
Edward Seymour, Associate Agency Director, Texas A&M Transportation Institute
Steve Bayless, Senior Director, Telecommunications and Telematics, ITS America
SIS17 – Next Steps for Big Data and Transportation

**Tuesday, June 2, 3:45 – 5:00 p.m.**

**Session Track:** ■ New and Emerging Topics

Connected Vehicles and the Internet of Things (IoT) are set to bring enormous amounts of data into an already crowded environment of commercial/transactional big data. Powerful analytics promise the deepest of insights into a system’s performance while real-time operational analytics systems promise more efficient and safer mobility, culminating smart cities interconnected by smart roads and other smart transportation infrastructure. While there are many challenges ahead for transportation agencies and their partners to harness the power of big data for transportation, the business community is focused on making the data more accessible to non-data centric users. The group will dive in to the waters of big data accessibility and state-of-the-art predictive analytics for transportation.

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

**Speakers**
Bob McQueen, CEO, The Cash Company
Peeter Kivestu, Director, Travel Industry Solutions, Teradata
Rick Schuman, Vice President and General Manager, Public Sector, INRIX
Phil Silver, Captian USN (Retired), Director, Business Development, Urban Insights Associates
Tom McCullion, CIO, Florida DOT
Chandra Salem, Senior Enterprise Architect - Big Data, Rackspace

SIS18 – Using ITS to Improve Pedestrian and Bicyclist Safety

**Tuesday, June 2, 3:45 – 5:00 p.m.**

**Session Track:** ■ Safety

Emerging ITS technology has the potential to improve pedestrian and bicyclist safety by developing connectivity and communication among non-motorized and motorized road users and the surrounding infrastructure. Technologies such as camera systems; detection and warning applications for drivers, pedestrians, and cyclists; intelligent intersections; and ITS safety systems could improve safety by increasing awareness of a potential conflict between drivers and vulnerable road users. This session brings together experts in the fields of intelligent transportation and pedestrian and bicyclist safety to discuss the current state of the art and future directions for ITS in vulnerable road user safety.

**Organizer**
Justin Owens, Center for Vulnerable Road User Safety, Virginia Tech Transportation Institute

**Moderator**
Zac Doerzaph, Director, Center for Advanced Automotive Safety, Virginia Tech Transportation Institute

**Speakers**
Ben Englander, Vice President of Engineering, Rosco, Inc.
Susan Bai, Senior Engineer, Honda R&D ATR Division
John Tipaldo Ph.D, P.E., Director, System Engineering, New York City DOT
SIS19 – Road Usage Charging: Is a Mileage-Based Tax the Answer to Financial Sustainability?

Tuesday, June 2, 3:45 – 5:00 p.m.

**Session Track:** Sustainability

Pay-at-the-pump fuel taxes have not kept up with transportation funding needs and this funding gap can only be expected to grow as the average fuel economy of the vehicle fleet improves, including an increase in the number of electric and plug-in hybrid vehicles that pay minimal tax for using the roadways. Several states are looking at a mileage-based Road Usage Charge (RUC) to supplement or replace the fuel tax. This session will include representatives from some of these states and will include discussions on their potential RUC solutions in terms of technology, management, privacy, and other potential issues.

**Organizer & Moderator**
Lou Neudorff, Principal Technologist - ITS, CH2M Hill

**Speakers**
Mark Reichert, Assistant Executive Director, Florida Transportation Commission

SIS20 – Emissions Reduction Strategies Using ITS

Wednesday, June 3, 2015, 8:00 – 9:15 a.m.

**Session Track:** Sustainability

One of the major focus areas of sustainable transportation is to identify and quantify the ability of ITS technologies and operational strategies to help mitigate the environmental impact and adapt to the changing climate. To maximize the efficiency of these technologies and strategies in reducing fuel consumption and emissions, transportation management agencies need to progress from individual systems and services to an integrated and coordinated platform, in particular on a regional basis. There are many examples of such deployments: witnessing contribution of ITS to efficiently operate surface transportation networks, provide tools to travelers to make green travel choices, and reduce the environmental impacts of transportation-related emissions and fuel consumption. This session will present selected examples of these best practices and deployed ITS strategies.

**Organizer & Moderator**
Carlos Alban, Technical Programs Specialist, ITS America

**Speakers**
Farhad Pooran, Vice President of Engineering, Schneider Electric
Marcia Pincus, Program Manager, Intelligent Transportation Systems Joint Program Office, U.S. DOT
Dr. Mohammed Hadi, Associate Professor, Florida International University
J.D. Schneeberger, Lead, Noblis
SIS21 – Philanthropic and Community Funding
Leveraging the Deployment of ITS Solutions:
The Case of Carnegie Mellon University’s Traffic21 Initiative

**Wednesday, June 3, 2015, 8:00 – 9:15 a.m.**

**Session Track:** ■ New and Emerging Topics
The Traffic21 Initiative was created at Carnegie Mellon University in 2009 with seed funding from The Henry L. Hillman Foundation. Its goal was to research, develop, deploy and evaluate information and communications technology based solutions to address the problems facing the transportation system of the Pittsburgh region and the nation. By leveraging public and private partnerships, the Foundation’s funding has made possible an array of ITS projects and deployments. Traffic21 is now an Institute at CMU continuing this work.

**Organizer & Moderator**
Rick Stafford, Distinguished Service Professor of Public Policy, Director of Metro21 Initiative, Carnegie Mellon University

**Speakers**
David Roger, President, Hillman Family Foundations
Debra Lam, Chief of Innovation and Performance Officer, City of Pittsburgh
Allen Biehler, Distinguished Service Professor of Transportation Systems and Policy, Executive Director of University Transportation Center, Carnegie Mellon University
Tom McGough, Jr., Executive Vice President and Chief Legal Officer, University of Pittsburgh Medical Center

SIS22 – Transportation Systems Operations

**Wednesday, June 3, 8:00 – 9:15 a.m.**

**Session Track:** ■ Transportation Systems Operations
Latest Developments in Managed Lanes: This session will cover an overview of U.S. projects with a focus on incident management, dynamic pricing, new technologies, and how connected vehicles might impact current and future projects.

**Organizer & Moderator**
Bob Murphy, Senior Project Manager, AECOM

**Speakers**
Joseph Snyder, TMC Manager FL DOT District 6, AECOM
Robert Kerns, Pricing and Development Manager, Transurban USA Inc.
Bob Taylor, Manager of Traffic Operations, Pennsylvania Turnpike Commission
Speaker to be Announced
SIS23 – Getting Ready for Automated and Connected Vehicles: What Should States Do?

Wednesday, June 3, 8:00 – 9:15 a.m.

Session Track: Connected and Automated Vehicles

The incremental deployment of both automated and connected vehicle systems over time presents to state and local transportation agencies both important opportunities and tough challenges. The opportunities include capitalizing on the potential of automation and connection for safety, mobility and environmental benefits—requiring meeting the challenges of the deployment of infrastructure, advanced traffic controls, back office systems and analytics, as well as expanded TSM&O activities involving new TMC roles, aggressive traveler information dissemination. In the longer term, significant penetration of automation may substantially impact the roadway network planning and design—in particular the roadway capacity and design features, the substitution of in-vehicle controls and information for roadside appurtenances as well as other indirect parting and urban design features. What are the key short and long run issues regarding institutional “readiness”? What policies need to be evolved? How can new systems operations and information be accommodated in agency program structure and funding? What kind of Organizational framework and technical capabilities need to be evolved? How can new forms of partnership be developed? What re the short vs. long term priorities?

Organizer
Stephen C. Lockwood, Sr. Vice President, Parsons Brinckerhoff

Moderator
Mike Lukuc, Program Manager, Connected and Automated Vehicles, Texas A&M Transportation Institute

Speakers
Stephen C. Lockwood, Sr. Vice President, Parsons Brinckerhoff
Ginger Goodin, Director, Transportation Policy Research Center, Texas A&M Transportation Institute
Jeffrey Lindley, Associate Administrator for operations, Federal Highway Administration, U.S. DOT
Ananth Prasad, Senior Vice President, HNTB Corporation
### SIS24 – Innovative Technology Solutions for Accessible Transportation

**Wednesday, June 3, 9:30 – 10:45 a.m.**

**Session Track:** Innovative Technology Solutions for Accessible Transportation

This session will discuss innovative technological solutions for accessible transportation. This session will include an overview of recent accessible research initiatives around the nation that provide better transportation choices to travelers with disabilities and older adults and research to access the impact of introducing emerging technology solutions for all users of the transportation system. It will explore the opportunities associated with advances in state of practice and innovative technologies in the areas of wayfinding and navigation, assistive technologies, automation and robotics, data integration, and enhanced human service transportation. This session will bring different experts, technologists, perspectives from the USDOT and other agencies, academia and private sector to further discuss and to look for ways to collaboratively work to further this research.

**Organizer & Moderator**
Mohammed Yousuf, Office of Operations R&D, Turner-Fairbank Highway Research Center, Federal Highway Administration, U.S. DOT

**Speakers**
- Aaron Steinfeld, Associate Research Professor, Robotics Institute, Carnegie Mellon University
- YingLi Tian, Ph.D., Professor, Department of Electrical Engineering, The City College of New York
- Chieko Asakawa, IBM Fellow, IBM Research - Tokyo
- David Bruemmer, CEO & CTO, 5D Robotics, Inc.
- Todd Allen, Director of Government & Community Relations, RouteMatch Software
- Kunik Lee, Research Transportation Specialist Turner-Fairbank Highway Research Center, Federal Highway Administration, U.S. DOT

### SIS25 – The Future of Integrated Corridor Management

**Wednesday, June 3, 9:30 – 10:45 a.m.**

**Session Track:** Transportation Systems Operations

Generally, transportation networks are operated by independent agencies, and efforts to reduce congestion have focused on the optimization of individual networks. Integrated Corridor Management (ICM) seeks to optimize the use of existing infrastructure assets and leverage unused capacity along our nation’s urban corridors through a “system of systems” approach to the management of multiple, independently-operated transportation networks and modes along a corridor. This session will review the latest developments in the application of ICM approaches in the U.S. Topics covered may include, but are not limited to, interagency coordination strategies that can help overcome the institutional barriers to ICM implementations, the latest advancements in decision support systems, and lessons learned from ICM implementations across the country. This session will also feature a regional perspective on multi-jurisdictional traffic management from Pennsylvania DOT’s NextGen ATMS project.

**Organizer**
Jennifer Carter, Vice President for Technical Programs, ITS America

**Moderator**
To be Announced

**Speakers**
- Daniel G. Corey, Associate Vice President / Deputy ITS Practice Leader, AECOM
SIS26 – TMC Operator Certification

Wednesday, June 3, 9:30 – 10:45 a.m.

**Session Track:** Transportation Systems Operations

There is an industry need for certification of knowledge and skills for Transportation Management Center Operators. The International Municipal Signal Association (IMSA) is the preeminent organization certifying technicians and operators. This session will present the results of the IMSA certification program development effort that addresses day to day operations and management of Intelligent Transportation Systems (ITS) including ATMS, ICM, System Software, ATM, traffic signals, DMS, CCTV, ramp meters, malfunctions, freeways and incident management. The certification program is expected to be available in late 2015.

**Organizer**
Martha Morecock Eddy, Senior ITS Consultant, Infrastructure Division, Timmons Group

**Moderator**
To be Announced

**Speakers**
Joseph Strauss, Project Manager, TeknoTraffic
Patrick Son, Senior Technical Programs Specialist, ITS America

SIS27 – ITS and the Revolution in Urban Mobility

Wednesday, June 3, 9:30 – 10:45 a.m.

**Session Track:** Shared Use Mobility and Transit

The last few years have seen a burst of new forms of urban mobility. These range from shared cars and shared bikes to private firms including Uber, Lyft, RideScout, Bridj and many others. These provide new ways to move people and are bringing about a de facto deregulation of urban transportation. Technology plays a key role in most of these new entities, including GPS, real-time traffic and navigation, telecommunications, and smart phone apps. This session will explore likely future directions for new urban mobility and the technology required to support it.

**Organizer & Moderator**
Richard Mudge, President, Compass Transportation and Technology

**Speakers**
Joseph Kopser, CEO & Co-Founder, RideScout
Additional speakers to be announced
Technical Sessions

TS01: Commercial Vehicle Performance

Tuesday, June 2, 9:30 a.m. - 10:45 a.m.

Session Track: Commercial Vehicle and Freight Mobility
Moderator: Richard Easley, President, E-Squared Engineering

14586  FMCSA's SmartPark — Phase II
Quon Kwan, Program Manager, Federal Motor Carrier Safety Administration, U.S. DOT

14620  Evaluation and Testing of Driver Assistive Truck Platooning: Phase One Results
Richard Bishop, Principal, Bishop Consulting

14668  Road Intersection Monitoring From Video With 3D Reconstruction
Yuting Yang Research Assistant, GRASP Laboratory, University of Pennsylvania

14669  Development of a Real-Time Web-Based Dashboard for Interstate Performance Monitoring
Margaret McNamara, Purdue University

14724  Evaluation of Traffic Flow Effects of Driver Assistive Truck Platooning
Mikhail Gordon, Graduate Research Assistant, Auburn University

14728  Adapting Traffic Detection Technology for a Real-Time Truck Parking Information & Management System
Luke Biernbaum, ITS Engineer, Michigan DOT

TS02: Connected Vehicle Innovations

Tuesday, June 2, 9:30 a.m. - 10:45 a.m.

Session Track: Connected and Automated Vehicles
Moderator: Stan Caldwell, Executive Director, Traffic21 Institute, Carnegie Mellon University

14576  M-proximity an IP Proximity Proposal for Mobile IP Terminals on 4g Networks
Dr. Gianraffaele Percannella Sr., TPM, Telecom Italia, Italy

14596  Preparing TMCs for Connected Vehicles
Robert Edelstein, Senior Vice President of ITS in North America, AECOM

14610  The New York City Drive Smart Pilot
Raymundo Martinez, Senior Project Manager, TransCore

14637  Establishing a Regional Connected Vehicle Environment
Matthew Smith, ITS Program Manager, Michigan DOT

14670  Low-Cost and Energy-Saving Wireless Sensor Network (WSN) for Real-Time Urban Mobility Monitoring System
Joyoung Lee, Assistant Professor, New Jersey Institute of Technology

14727  The Connected Vehicle Reference Implementation Architecture: Supporting Systems Engineering Analysis
Clifford Heise, Vice President, Federal and Research, Iteris, Inc.
## TS03: Mobile Technology Applications

**Tuesday, June 2, 9:30 a.m. - 10:45 a.m.**

**Session Track:** Mobile Technology

**Moderator:** C. Douglass Couto, Independent Consultant

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<td>Utah DOT Real-Time Lane Closure Reporting Initiative</td>
<td>Lisa Miller, Traveler Information Manager, Utah DOT</td>
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<td>14607</td>
<td>Smartphone and Vehicle Cybersecurity</td>
<td>Hirofumi Onishi, Specialist, Alpine Electronics</td>
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<td>14653</td>
<td>511PA Case Study — The Transition to a Mobile Focused Service</td>
<td>Mary Farrell, President, Information Logistics</td>
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<td>Major Efforts Underway to Create North American Toll Interoperability</td>
<td>Martin Stone, General Manager, Egis Projects, Inc.</td>
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<td>14685</td>
<td>Evolution of Mobile App Integration in Pennsylvania Turnpike Operations</td>
<td>William Capone, Chief of Communications and Public Relations, Pennsylvania Turnpike Commission</td>
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<td>14709</td>
<td>A Thousand Points of Insight: Making Use of Public Reports in Traveler Information Systems</td>
<td>Peter Davies, CEO, Castle Rock Associates</td>
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## TS04: The Intersection of Transit and Data

**Tuesday, June 2, 9:30 a.m. - 10:45 a.m.**

**Session Track:** Shared Use Mobility & Transit

**Moderator:** Courtney Ehrlichman, Program Manager, Carnegie Mellon’s U.S. DOT National University Transportation Center for Safety

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<td>Mobile Apps for Bus and Rail Operations</td>
<td>Robert James, Director, Passenger Communication Technology, New Jersey Transit</td>
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<td>14597</td>
<td>Application of Social Media Data in Traffic Incident Detection and Management</td>
<td>Rakesh Nune, Systems Engineer, District DOT</td>
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<td>14600</td>
<td>Interactive Space-Time Diagram for Public Transit</td>
<td>Ion Ho, Research Engineer, PARC, Inc.</td>
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<td>14627</td>
<td>Crowdsourced Transportation Data: Review of Methods and Proposed Taxonomy</td>
<td>Eric Paul Dennis, Transportation Systems Analyst, Center for Automotive Research</td>
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<td>14650</td>
<td>Case Study: Implementation of Real-Time System Management Information Program (RTSMIP) for the State of Connecticut</td>
<td>James Sorensen, Associate, IBI Group</td>
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<td>14688</td>
<td>Evolution of New York City’s Central Transit Signal Priority: Architecture, Deployment and Operations</td>
<td>Lihua Zhang, Transportation Engineer, TransCore</td>
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TS05: Evaluating Safety Operations

**Tuesday, June 2, 9:30 a.m. - 10:45 a.m.**

**Session Track:** Safety

**Moderator:** John Funny, President & CEO, Grice Consulting Group

14588 Dynamic Real-time Lane Modeling
Purser Sturgeon II, Senior Research Analyst, Southwest Research Institute (SwRI)

14657 Assessing Driver Behavior in Fog Using RWIS Visibility Data
Katie McCann, Graduate Research Assistant, University of Virginia

14704 Connected Vehicle Applications and Integration with Advanced Traffic Management Software
Josh Johnson, Manager Transportation Systems Section, Southwest Research Institute (SwRI)

14705 Active Traffic Management: Texas Variable Speed Limit Pilot Project
Tucker Brown, Senior Research Engineer, Intelligent Systems, Automation & Data Systems, Southwest Research Institute (SwRI)

14711 Evaluating a Variable Speed Limit Control Strategy in a Work Zone
Yang He, New Jersey Institute of Technology

14715 A System for Rail-Infrastructure Monitoring Using the Vibrations Collected by a Passing Train
George Lederman, Ph.D. Candidate, Carnegie Mellon University

TS06: Signal System Operations and Control Technologies

**Tuesday, June 2, 9:30 a.m. - 10:45 a.m.**

**Session Track:** Transportation Systems Operations

**Moderator:** Meredith Cebelak, Graduate Research Assistant, University of Texas at Austin

14562 Evaluation of the Impact of Railroad Preemption on Average Vehicle Speeds Using Anonymous Wireless Address Matching (AWAM) Techniques
Tony Voigt, Program Manager, Texas A&M Transportation Institute

14606 Adaptive Signal Control Technologies (ASCT) and Agency Participation in Evaluating Their Benefits
Jeffrey Kupko, Traffic Engineer, University of Pittsburgh

14636 Signal Operational Strategies Address The City Of Arcadia’s Transportation Challenges
Chuck Dankocsik, Senior Associate, TransCore ITS, LLC

14563 It takes an Ecosystem… for Safe, Efficient, and Intelligent Low Voltage DC LED Signal Lamps with the New Advanced Transportation Controller Cabinet
James Frey, Global Market Development Manager, Schneider Electric

14659 A Study on the Platoon Signal Traffic Control System — With the Qianhai-Xuefu Intersection as an example
Shaopeng Yang, Shenzhen Nanshan Traffic Police Brigade, China

14682 The Impact of Pedestrian Activities in Adaptive Traffic Signal Control System Operations
Yuan Hu, University of Pittsburgh

14719 Lessons Learned from 10-Years of Operating Transit Signal Priority on Howard Street, in Baltimore, Maryland: It’s Not Just About the Technology
TS07: Advancements in Transportation System Operations

**Tuesday, June 2, 9:30 a.m. - 10:45 a.m.**

**Session Track:** Transportation Systems Operations

**Moderator:** Allison Slizofski, Principal, Drive Engineering Corp.

14587 The Port Authority Intelligent Transportation Systems Strategic Plan
Jennifer Bates, Principal Engineer, Port Authority of New York and New Jersey

14629 The Port Authority Agency Operations Center Concept of Operations
Theodore Bobowsky, Staff Services Engineer, Port Authority of New York and New Jersey

14633 A Framework for the Deployment of Intelligent Transportation Systems in a Multi-agency Urban Environment
Arthur T. O’Connor, Senior ITS/Operations Engineer/Downstate, Federal Highway Administration, U.S. DOT

14643 Intelligent Transportation Projects Built on a Foundation of Systems Engineering: 14 Case Studies
Kevin Fehon, Principal, ITS Group, DKS Associates

14721 Changing the DOT Culture: The Colorado DOT Story
Ryan Rice, Director, Division of TSM&O, Colorado DOT

14652 Improving Service and Delivery through the Reconfiguration of the Maryland State Highway Administration’s Statewide Operations Center
Jeffrey Randall, ITS Project Manager, Jacobs Engineering Group

TS08: Assessing Automated Vehicles

**Tuesday, June 2, 11:00 a.m. — 12:15 p.m.**

**Session Track:** Connected and Automated Vehicles

**Moderator:** Steven Dellenback, Director R&D, Southwest Research Institute (SwRI)

14648 Borrowing from the Banks: What the Financial Sector Can Teach Automakers about Vehicle Cyber Security
Denis Cosgrove, Senior Associate, Booz Allen Hamilton

14664 Connected and Automated Vehicles as Generators of Useful Data
Qiang Hong, Senior Research Scientist, Center for Automotive Research

14679 MDOT DUAP Project
Collin Castle, P.E., Connected Vehicle Technical Manager, Michigan DOT

14687 Bounding the Potential Increases in Vehicles Miles Traveled for the Non-Driving and Elderly Populations and People with Travel-Restrictive Medical Conditions in an Automated Vehicle Environment
Corey Harper, Research Assistant, Carnegie Mellon University

14718 Assessing the Energy Impact of Traffic Management and Vehicle Electrification
Vadim Sokolov, Engineer, Argonne National Laboratory

14729 Modernizing Driver Evaluation to Encompass Intelligent Vehicle Technology
Nahom Beyene, University of Pittsburgh
TS09: Collision and Wrong Way Driving Warning Systems

Tuesday, June 2, 11:00 a.m. — 12:15 p.m.

Session Track: Safety

Moderator: Dick Schnacke, Vice President, TransCore

14561 Reducing Wrong-Way Driver Incidents by Focusing on the Right-Way Driver: A Different Approach
David Jones, ITS Group Leader, Jacobs Engineering Group

14582 Bicycle Detection — Achieving “Vision Zero” Success
Adam Lyons, Director of Marketing, Iteris, Inc.

14624 Truck Rollover Warning System (TROWS)
Ray Starr, Assistant State Traffic Engineer-ITS, Minnesota DOT

14655 Florida's Turnpike Safety Pilot for Wrong Way Driving (WWD)
Ryan Brown, Jacobs Engineering

14662 Directed Audio Warning System for Reduction of Bus-Pedestrian Collisions
Marcus Pan, University of Pennsylvania

14674 Wrong-Way Driving Detection and Prevention System: A Pilot Deployment
Corey Quinn, Director of Expressway Operations, Central Florida Expressway Authority

TS10: ITS Safety Applications

Tuesday, June 2, 11:00 a.m. — 12:15 p.m.

Session Track: Safety

Moderator: James Sayer, Program Manager, Safety Pilot Test Conductor & Associate Research Scientist, University of Michigan Transportation Research Institute (UMTRI)

14612 Safety Benefits of Oregon DOT’S Integrated DOT-911-Police Dispatch System
Shaun Quayle, Senior Engineer, Kittelson & Associates, Inc.

14647 Exploring Friction Modification to Improve Safety of Horizontal Curve Roadways
Seri Park, Assistant Professor, Villanova University

14656 Toward an Intelligent and Safe Port Operation: Smart Camera and Cell Elevator
Seri Park, Assistant Professor, Villanova University

14663 Roadway Monitoring and Driver Warning Systems for Wildlife-Vehicle Collision Avoidance
Abir Mukherjee, A.U.G. Signals Ltd., Canada

14693 Validation Study on Evaluation of Traffic Safety Installations Using fNIRS Proving Ground Edition
Kouji Yamamoto, Director, Central Nippon Expressway Co., Ltd, Japan

14698 Selection of Operation Parameters of Service Patrol Programs
Steve Corbin, Vice President, Schneider Electric
TS11: Enhancing Traveler Information

Tuesday, June 2, 11:00 a.m. — 12:15 p.m.

Session Track: Transportation Systems Operations
Moderator: Michael McGurrin, Senior Fellow, Transportation Systems, Noblis

14564 Using Crowdsourced Data from Social Media to Support TMC Operations
Jeffrey Adler, Director of Business Development, Open Roads Consulting

14598 An Extended Kalman Filter Approach for Traffic Speed Estimation with Delayed Measurements
Jason Tao, Senior ITS Engineer, District DOT

14628 Balancing Transportation Systems Data Collection and Privacy Rights in the United States
Eric Paul Dennis, Transportation Systems Analyst, Center for Automotive Research

14683 Development of Tools for Integrated Corridor Management Planning
Kevin Miller, Practice Lead, Schneider Electric

14692 The Evolution of PennDOT District 6-0’s Travel Time Program
Brian DePan, Project Manager - ITS Design and Construction, Jacobs Engineering Group, Inc.

14714 Exploratory and Causal Analysis of Driver Acceptance of Graphical Route Information Panels (GRIPs): A Case Study in Austin, Texas
Jia Li, Postdoctoral Fellow, The University of Texas at Austin

TS12: Integrated Corridor Management

Tuesday, June 2, 11:00 a.m. — 12:15 p.m.

Session Track: Transportation Systems Operations
Moderator: Bob McQueen, CEO, The 0Cash Company

14572 MDOT Metro Region Integrated Corridor Management Projects
Michele Mueller, Metro Region Sr. Project Manager, Michigan DOT

14591 Advances in Strategies for Implementing Integrated Corridor Management
Kevin Miller, Practice Lead, Schneider Electric

14599 Using Real-Time Data to Automate Variable Speeds and Traveler Information
Carl Olson, Transportation Engineering Associate, DKS Associates, Inc.

14608 From Integrated Corridor Management to Integrated Regional Management — Dallas Experience
Ahmad Sadegh, Regional Vice President, Schneider Electric

14697 A Data-Driven Approach to Corridor Planning
Joel Ticatch, Manager, Consultant Services, Schneider Electric

14725 I-70 Mountain Corridor: Mother Nature Vs. TSM&O
Ryan Rice, Director, Division of TSM&O, Colorado DOT
TS13: Advances in Traffic Management

**Tuesday, June 2, 11:00 a.m. — 12:15 p.m.**

**Session Track:** Transportation Systems Operations

**Moderator:** Daniel Farley, Manager, Traffic Signals and Operational Analysis, PennDOT

**14710 Scalable Systems for Transportation Analytics**
Jane Macfarlane, Head of Research, HERE

**14616 Traffic Lights Waiting Time to Decrease Travel Time for Intelligent Vehicles in a Double Lane Road**
Ricardo Reghelin, Professor, Federal Institute of Science and Technology, Brazil

**14671 Small Quadcopter Drone for Traffic Surveillance and Roadway Incident Monitoring**
Zijia Zhong, Graduate Research Assistant, New Jersey Institute of Technology

**14701 Strategic Identification and Assessment of Emerging Transportation Technology Portfolio in Texas**
Jia Li, Postdoctoral Fellow, The University of Texas at Austin

**14707 Active Traffic Management and Adaptive Traffic Signal Control — The New York City Experience & Approach**
Mohamad Talas, Deputy Director, New York City DOT

**14726 Data Analytics Using a Real-time Big-Data Management Architecture for Adaptive Traffic Signal Control**
Wuping Xin, Chief Technology Officer, KLD Engineering, P.C.

**14731 The Relation between Urban Statistics, Congestion Metrics, and Intelligent Transportation Solutions in the United States**
Meredith Cebelak, Graduate Research Assistant, University of Texas at Austin

TS14: Alternative Approaches for Transportation System Operations

**Tuesday, June 2, 11:00 a.m. — 12:15 p.m.**

**Session Track:** Transportation Systems Operations

**Moderator:** Frank Deasy, Sr. Project Manager, Schneider Electric

**14570 Optimizing Performance Objectives for Congestion Pricing Parking Projects**
Peer Ghent, Senior Management Analyst, Los Angeles DOT

**14579 Vehicle Travel Time Collection Technology in Seattle**
Adiam Emery, Transportation Operations Center Manager, Seattle DOT

**14623 Evaluation of Dynamic Mobility Applications (DMA) and Active Transportation and Demand Management (ATDM) Strategies Using Simulation Environment**
Balaji Yelchuru, Senior Associate, Booz Allen Hamilton

**14672 Evaluating the Impact of Dynamic Shoulder Lane for Freeway Work Zone Congestion Mitigation**
Bo Du, Graduate Research Assistant, New Jersey Institute of Technology

**14686 Evaluation of Temporary Construction Point Traffic Detectors for Construction Zone Traffic Monitoring**
Michelle Mekker, Graduate Research Assistant, Purdue University

**14712 Managing Enhanced ITS Communications Systems**
Meredith McDiarmid, State Systems Operations Engineer, North Carolina DOT
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Better use of space
Training Sessions

TR01 – ITS Solutions to Truck Parking Problems

**Tuesday, June 2, 9:00 – 10:30 a.m.**

**Session Track:** Commercial Vehicle and Freight Mobility

Truck parking shortages are a national safety and operations concern. Studies have identified severe truck parking shortages and a lack of adequate information for truck drivers regarding capacity at existing facilities. Under MAP-21, ITS-based solutions designed to improve truck drivers’ awareness of parking facility locations and space availability are eligible to be programmed with Federal-aid highway funding. Additionally, a number of ITS-based projects that received funding under the SAFETEA-LU Truck Parking Pilot Program are in progress or have been recently completed. This session will include a discussion on the nature and scope of truck parking shortages and discuss the application of ITS-based solutions. Federal and State sponsors of ITS-based projects will share their insights on the advantages that these solutions generate and discuss the challenges in developing, delivering and sustaining these services.

**Moderator**
Tom Kearney, Freight Operations Program, Office of Freight Management & Operations, FHWA

**Trainers**
Matt Hanson, Research & Technology, Goods Movement Research, Caltrans
Dr. Nikolaos Papanikolopoulos, Distinguished McKnight University Professor, IEEE Fellow, University of Minnesota
Brian Taylor, Director of Sales, ITS, Intelligent Imagining Systems
Rick Warner, Chief Operating Officer, Truck Smart Parking

TR02 – Implementing ITS Road Weather Strategies

**Tuesday, June 2, 10:30 a.m. – Noon**

**Session Track:** Transportation Systems Operations

By completing this training session, State DOT managers will be informed about connected vehicle solutions and advanced Road Weather Management strategies that can be implemented to better manage their systems under adverse weather conditions. In addition, private sector service providers will be provided with key tools and other solutions that can be incorporated into their product lines. The session will discuss the following topics:

- Accessing and using road weather observation data for research and operational purposes, including an overview of the Weather Data Environment;
- The Pikalert® Vehicle Data Translator, and how to incorporate it into road weather applications;
- Road Weather Applications such as the Enhanced Maintenance Decision Support System — what it is and how to implement it;
- Managing traffic by utilizing Weather Responsive Traffic Management (WRTM) strategies and applications such as the motorist advisories and warnings; and
- Specifying and procuring on-board vehicle systems into public fleets.

**Trainer**
Gabriel Guevara, P.E., Road Weather Management Team, Office of Transportation Operations, FHWA
TR03 – Implementing ITS Work Zone Strategies

Wednesday, June 3, 7:30 – 9:00 a.m.

Session Track: Transportation Systems Operations

The purpose of this session is to provide training on the implementation of ITS in work zones. The target audience includes public agencies, design and construction firms, and industry, including developers, manufacturers, distributors, packagers, and providers of devices, systems, and programs. Work zone ITS is one possible operational strategy of many potential solutions that an agency can include in a transportation management plan (TMP). This session will summarize key steps for successfully implementing ITS in work zones, using a systematic approach to provide a technical solution that accomplishes a specific set of clearly defined objectives. It will illustrate how a systems engineering process should be applied to determine the feasibility and design of work zone ITS for a given application, regardless of its scale, by walking through the key phases, from project concept through operation. These steps include assessment of needs; concept development and feasibility; detailed system planning and design; procurement; system deployment; and system operation, maintenance, and evaluation.

Trainer
Todd Peterson, P.E., PTOE, Work Zone Management Team, Office of Transportation Operations, FHWA

TR04 – Development and Implementation of Integrated Corridor Management (ICM) Strategies

Wednesday, June 3, 1:30 – 5:30 p.m.

Session Track: Transportation Systems Operations

This session will provide an introduction to the concept of Integrated Corridor Management (ICM), an overview of the U.S. Department of Transportation’s ICM Initiative and the U.S. DOT developed ICM Implementation Guide. Lessons learned from sites that are currently implementing ICM strategies will be showcased and an audience discussion will center on the opportunities and challenges in implementing ICM and the exploration of steps for promoting further deployment.

Trainer
Neil C. Spiller, Systems Management Team, Office of Transportation Management, FHWA
ITS America Forum Meetings

DOTs and the Changing Relationships with Apps and Big Data Analytics

**Monday, June 1, 11:00 a.m. – 12:15 p.m.**

This meeting will feature an informal discussion with Elizabeth Birriel, the Deputy State Traffic Engineer and ITS Manager for Florida DOT and a speaker from Waze — the world’s largest community based traffic and navigation app — highlighting their unique and collaborative relationship to manage the transportation network. This meeting will also highlight the recent accomplishments of ITS America’s Technical Forums (Safety, Transportation Management, Commercial Vehicle and Freight Mobility, Sustainability, and Emerging Technologies) that provide a collaborative environment for the experts in the intelligent transportation industry.

**Organizer**
Patrick Son, Senior Technical Programs Specialist, ITS America

Safety Forum

**Monday, June 1, 12:30 – 1:45 p.m.**

Led by Safety Forum Chair Myra Blanco of the Virginia Tech Transportation Institute and Vice Chair Paul Avery of the Southwest Research Institute (SwRI), the ITS America Safety Forum promotes the research and deployment of safety-related Intelligent Transportation Systems (ITS) applications and provides stakeholder guidance on the development of national policies and safety standards. At this business meeting, forum members will review the forum activities across the past year as well as plan for the year ahead. Both ITS America members and non-members are welcome.

**Organizer**
Adrian Guan, Senior Technical Programs Specialist, ITS America

Commercial Vehicle and Freight Mobility Forum

**Monday, June 1, 2:00 – 3:15 p.m.**

Currently led by Forum Vice Chair John Woodroofe of the University of Michigan Transportation Research Institute, ITS America’s Commercial Vehicle and Freight Mobility (CVFM) Forum’s mission 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 (ITS). Join us for our annual face-to-face meeting during the ITS Annual Meeting and learn more about the forum’s activities and how to get involved.

**Organizer**
Sean Murphy, Technical Programs Specialist, ITS America
Sustainability Forum

**Monday, June 1, 3:45 – 5:00 p.m.**

Led by Chair Lou Neudorff of CH2M Hill and Vice Chair John Lower of Iteris, Inc., ITS America’s Sustainability Forum 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 reduce fuel consumption. This meeting will be a great opportunity to learn about the work that is currently being done in the area of Sustainability, and how to get more involved in the activities of the forum.

**Organizer**
Carlos Alban, Technical Programs Specialist, ITS America
Ancillary Events, Meetings & Workshops

U.S. DOT Professional Capacity Building Training Course:
Connected Vehicle 102

**May 31, 10:00 a.m. – 2:30 p.m.**

This U.S. DOT Professional Capacity Building training course will provide additional details about future Vehicle-to-Vehicle and Vehicle-to-Infrastructure applications. The workshop will describe initial considerations for deploying the enabling technology such as: identifying regional and local transportation challenges; developing deployment concepts; integrating your Connected Vehicle project into ongoing operations; determining the kinds of data to collect and share; establishing communication and physical security needs through a prototype Security Credential Management System (SCMS); and determining the number of roadside installations, mobile devices, or vehicles necessary for operational deployments of Connected Vehicle applications.

**Cost**
Included as a part of the Annual Meeting registration

ITS America State Chapters Strengthening Workshop

**Sunday, May 31, 11:30 a.m. – 3:00 p.m.**

*Each State Chapter receives one delegate registration at no charge*

Delegates representing ITS America’s 27 state and regional chapters from around the country will arrive in Pittsburgh ahead of the 2015 ITS Annual Meeting to attend the annual State Chapter Strengthening Workshop. This year’s workshop will feature expert presentations and discussions on important topics such as advocating for ITS at the state level, how to effectively engage local universities and young professionals in chapter activities, innovative fundraising and scholarship ideas, and best practices for providing regional training and education sessions to members. Attendees will be a mix of public and private sector ITS professionals. The workshop is open to ITS America Members attending the Annual Meeting and Exposition. Lunch will be provided to all workshop attendees.

**Cost**
$20.00

**Meals Provided**
Lunch
ITS America State Chapters Networking Reception

Sunday, May 31, 6:00 – 8:00 p.m.

*Limited occupancy to 150 people

The ITS America State Chapters Council is excited to host the 4th Annual State Chapters Networking Reception at the Senator John Heinz History Center, located in the historic Strip District, just a few blocks walk from the David L. Lawrence Convention Center. Join us for an evening of networking and discovery while you partake in a scavenger hunt of some of the center’s most coveted exhibits and learn about the innovation that Pittsburgh and its region has had on peoples’ lives through a special exhibit, Pittsburgh: A Tradition of Innovation. Attendees will also be able to visit the Western Pennsylvania Sports Museum at the History Center to relive the moments that made Pittsburgh sports great.

All reception registrants may tour available exhibits on the 1st and 5th floors at no additional charge between the hours of 10:00 a.m. and 5:00 p.m. on Sunday, May 31st. The Heinz History Center is located at 1212 Smallman Street, Pittsburgh, PA 15222.

New Member Welcome Reception

Monday, June 1, 7:00 – 7:45 a.m.

ITS America welcomes its newest members with this intimate reception taking place before the Legislative Breakfast. The Society’s newest members will have the opportunity to meet with ITS America’s Board of Directors, Leadership Circle, and current members, plus ITS America staff.

Cost

$25.00 per person

Meals Provided

Beverages will be served

Ancillary Events continues on next page >
Legislative Breakfast

Monday, June 1, 7:45 – 9:00 a.m.

The Legislative Breakfast provides industry leaders with the opportunity to hear from and engage with key elected officials who have jurisdiction over transportation, technology and related policy issues. Congress and the Administration have been working to pass a new surface transportation bill to replace the expiring MAP-21, and to find a long-term sustainable funding source for the nation’s transportation system. In addition, policymakers are continuing to support the research and deployment of Intelligent Transportation Systems (ITS) that are revolutionizing safety and mobility and helping achieve greater performance from our existing transportation systems and infrastructure. The Legislative Breakfast will provide an opportunity to hear directly from Member of Congress who will share their views on the most effective solutions for funding transportation and advancing the research and deployment of ITS technologies to create a safer, smarter, more efficient and sustainable transportation future.

Sponsored by

Michael Baker INTERNATIONAL

Cost
Invitation Only
Meals Provided
Breakfast

VIP Luncheon

Monday, June 1, Noon – 1:00 p.m.

Booz Allen Hamilton, a Fortune 500 company, has been at the forefront of strategy and technology consulting for more than 100 years, applying their expertise in such areas as systems development, cybersecurity, advanced engineering, and innovation to design, develop and implement solutions. The VIP luncheon will feature remarks from Booz Allen’s senior leadership on the shifting transportation industry landscape and how we can thrive within it.

Sponsored by

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Cost
Invitation Only
Meals Provided
Lunch

NXP Lunch Panel

Monday, June 1, 12:30 – 2:00 p.m.

At this year’s ITS Annual Meeting in Pittsburgh, NXP will kick-start a dialogue about the challenges ahead over a special lunch panel. We gathered thought leaders, industry insiders, and experts to discuss how the human experience connects with the technical world in the area of smart mobility. The world around us is changing quickly—and so are our lives. We drive cars that automatically brake because the vehicle ahead of it has warned of an accident. We use smartphones for everything from counting calories to online banking. The face of our cities is changing through interconnected traffic control, intelligent transport systems and smart power grids. In short, technological innovations have become an intrinsic part of our daily lives. As the world around us is getting smarter, important questions arise:

• How can we trust the technology that we rely on every day?
• How can we defend our digital selves?
• What is needed to take advantage of technological innovations?
### Exhibitors Welcome Reception

**Monday, June 1, 5:00 – 6:00 p.m.**

This important networking opportunity takes place in the David L. Lawrence Convention Center’s Exhibit Hall B. Join the exhibitors as they provide attendees an opportunity to visit, learn and engage with one another in a relaxed atmosphere. All ITS Annual Meeting attendees are invited to attend this special event.

- **Exhibit Hall B**
- **Cost** Included as a part of the Annual Meeting registration
- **Meals Provided** Cocktails and hors d’oeuvres will be served

### ITS America Business Meeting & Awards Presentation

**Tuesday, June 2, 7:00 – 8:00 a.m.**

ITS America will offer its annual remarks on the state of Intelligent Transportation Systems Industry and on current matters of interest at ITS America. The presentation of ITS America’s ITS Hall of Fame Awards, the winners of the Student Essay Competition sponsored by the Southwest Research Institute, and the Outstanding ITS America State Chapter Awards. All are welcome to attend to celebrate the latest happenings in the field of ITS and those that are helping to lead the way.

- **Cost** Included as a part of the Annual Meeting registration
- **Meals Provided** Beverages and a continental breakfast will be served

### ITS America 25th Anniversary Reception

**Tuesday, June 2, 5:30 – 7:00 p.m.**

Join ITS America for a very special event to celebrate our 25th anniversary. Just a short walk from the convention center, the celebration will take place at our host hotel the Omni William Penn and provide attendees the opportunity to connect with colleagues and enjoy live musical entertainment while taking a look back on how far we’ve come as an association and industry. All ITS Annual Meeting attendees are invited to attend this special event.

- **The Omni William Penn Hotel**
- **Sponsored by** **UBER**
- **Cost** Included as a part of the Annual Meeting registration. Full conference attendees receive a free drink ticket.
- **Meals Provided** Cocktails and hors d’oeuvres will be served
The American Association of State Highway and Transportation Officials (AASHTO) 
Subcommittee on Transportation Systems 
Management and Operations (STSMO) Meeting

STSMO Plenary Roundtable

Sunday, May 31, 8:00 – 10:00 a.m.

The Plenary Roundtable will open with a welcome from the Pennsylvania Department of Transportation, AASHTO, and STSMO. The Plenary will include an overview of 2014 STSMO accomplishments and will give insight to future STSMO activities in 2015. Following these updates, the AASHTO panelists will discuss the importance of Transportation Systems Management and Operations (TSM&O) to promote innovation as it relates to state DOT and industry practices as well as other future technologies and STSMO’s role in the National Operations Center of Excellence (NOCoE). An overview of the 2015 STSMO Strategic Plan will also be provided.

Moderator
STSMO Chair

Speakers
John Barton, Deputy Executive Director and Chief Engineer, Texas DOT
Malcolm Dougherty, Director, Caltrans
John Halikowski, Director, Arizona DOT
Jeff Lindley, Associate Administrator for Operations, FHWA
Leslie S. Richards, Acting Secretary, Pennsylvania DOT
Paul Trombino, Director, Iowa DOT

STSMO Technical Working Group Breakout Session 1, 2, 3 & 4

Sunday, May 31, 10:30 a.m. – 2:30 p.m.

The STSMO Technical Working Group on Systems Operations Strategies will meet to provide an update on their activities in the past year, discuss their planned activities for the next year, and any proposed STSMO resolutions.

- Session 1: Systems Operations Strategies
- Session 2: Performance Measures
- Session 3: TSM&O Research
- Session 4: Traffic Incident Management

Speakers
To be announced
STSMO Day 1 Closing Session

**Sunday, May 31, 3:00 – 3:30 p.m.**

The Chairs of the Technical Working Groups on Systems Operations Strategies, Performance Measures, and TSM&O Research will report on the discussions during their breakout sessions and the Chair of STSMO will address the STSMO members.

**Speakers**  
To be announced

STSMO Business Meeting

**Tuesday, June 2, 3:45 – 5:00 p.m.**

The STSMO Business Meeting will be used to discuss proposed AASHTO resolutions sponsored by STSMO and any other business related to STSMO.

**Speakers**  
To be announced

STSMO - ITS America Joint Sessions

The AASHTO Subcommittee on Transportation Systems Management and Operations has collaborated with ITS America to develop two **Town Hall sessions** on **Freight Mobility**, and **MAP 21 and Performance Measures** as well as an **Executive session** on **Operations Research Road Map and Updates**. More information on these sessions can be found on page 27 and page 28, respectively.
Technical Tours

Downtown Pittsburgh Bike Tour

Sunday, May 31, 1:00 – 3:00 p.m.

Sponsored by Iteris in association with Carnegie Mellon University, Bicycle downtown Pittsburgh—the heart of Pittsburgh’s livability—where bicycling has increased 440% over the past 20 years. Come with Iteris on a guided 5-mile bicycle ride (starting and ending at the David L. Lawrence Convention Center), and see how the city is making bicycling safer with Iteris SmartCycle to detect and differentiate bicycles at traffic signals. Also see:

- Point State Park, where the Ohio River forms
- Rivers Casino, Heinz Field (home of NFL Steelers) and PNC Park (home of MLB Pirates)
- Andy Warhol Center
- Rachael Carson Bridge

Route:

- 10TH St. south to William Penn Place
- William Penn Place south to 1ST Ave.
- First Ave west trail
- Trail west to Point State Park
- Point State Park north on trail across river, then west on trail to Rivers Casino
- East on Casino Drive to Heinz Field, PNC Park, Andy Warhol Center
- Rachael Carson Bridge south to the Convention Center

Sponsored by Iteris

Tour Length
5 Miles; Two hours maximum

Cost
$20 per person
East Busway-East Liberty Connected Vehicle Testbed

Monday, June 1, 1:00 – 3:30 p.m.

*Limited occupancy to 50 people

Explore the Port Authority of Allegheny County’s Martin Luther King Jr. East Busway, a two-lane dedicated bus-only roadway serving the City of Pittsburgh and its eastern suburbs. Experience the Port Authority’s real-time bus information advancements as you discover the benefits of the regional ConnectCard, an interoperable transit fare card that can be used on multiple transit systems within southwestern Pennsylvania. See how the latest in transit-oriented development and technology are being used to revitalize the East Liberty neighborhood of Pittsburgh. Highlights include a short walking tour of East Liberty to observe Carnegie Mellon’s Scalable Urban Traffic Control (SURTRAC) adaptive traffic signal project in action and to see where Pittsburgh’s connected vehicle testbed is being implemented.

Travel time to and from convention center
1/2 hour

Tour length
2 hours

Cost
$30 per person

Western Regional Transportation Management Center Tour

Tuesday, June 2, 1:00 – 4:00 p.m.

*Limited occupancy to 30 people (Additional tours may be provided)

Tour the Pennsylvania Department of Transportation’s (PennDOT) Western Regional Transportation Management Center (RTMC) located in Bridgeville, Pennsylvania. The Western RTMC operates 24/7, 365 days per year. The staff monitors conditions throughout the 18 counties in Western Pennsylvania in order to provide the safest and most efficient transportation system possible.

With real time video, electronic traffic sensors, and an integrated media room, the RTMC staff can identify and relay information regarding incidents and other events quickly. Using PennDOT’s Dynamic Message Signs (DMS), Highway Advisory Radios and 511, the staff can instantly provide traveler information to motorists on the roadway as well as those planning their trip. The RTMC also monitors automated reversible High Occupancy Vehicle (HOV) Lanes. In addition, the RTMC coordinates with Pennsylvania State Police, local police departments, and county 911 service and maintenance staffs to respond to highway incidents and dispatch the Freeway Service Patrols to assist travelers in their time of need. This tour will consist of a presentation highlighting all aspects of the RTMC and a walk through of the RTMC operations room.

Travel time to and from convention center
1 hour

Tour length
2 hours

Cost
$30 per person
Gateway Clipper Tour-Connected Waterways

Tuesday, June 2, 6:00 – 9:00 p.m.

*Limited occupancy to 230 people

Take a Gateway Clipper riverboat tour of Pittsburgh’s historic rivers on board the Three Rivers Queen. Enjoy an evening on the water aboard a riverboat that is styled after the steamboats of a bygone era. The Three Rivers Queen features two enclosed decks, flat screen TV’s and large beautiful windows.

Come see the Queen and learn about ITS applications applied on bridges above the water and on the waterways themselves. Explore the potential of using sensor-equipped vehicles to monitor the structural health of bridges. Also learn about the Port of Pittsburgh’s vision for a safe, secure, multi-layered broadband network to provide enhanced and protected communications along the entire inland waterways system. The tour will consist of a relaxing boat cruise, buffet dinner, cash bar and presentations on the above topics.

Carnegie Mellon University Autonomous Vehicle Demonstration

Wednesday, June 3, 8:00 – 10:30 a.m.

*Limited occupancy to 40 people

General Motors (GM) and Carnegie Mellon are working hard to make the car of the future the car of today. Due in large part to the success of Carnegie Mellon’s Tartan Racing team at the 2007 DARPA Urban Challenge, General Motors donated $5 million to establish the Autonomous Driving Collaborative Research Laboratory. Boss, an autonomous Chevy Tahoe, took first place in the Urban Challenge, beating entrants from some of nation’s top universities. With help from designers at GM, the Tartan Racing team was able to produce a driverless vehicle capable of completing the 55-mile course while sharing the road with other vehicles and negotiating traffic patterns.

Carnegie Mellon’s current autonomous vehicle is a 2011 Cadillac SRX which in 2014 was showcased in Washington, D.C. where Members of Congress experienced autonomous driving both on the highway and congested streets of Capitol Hill. This tour will include a demonstration of this autonomous vehicle and meeting the researchers behind the technology.
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Exhibit at the ITS America Annual Meeting & Expo

Exhibiting allows your company to gain exposure to buyers and partners that represent the entire spectrum of ITS technology and transportation services, including regional and national public agencies, the automotive sector, consulting firms, infrastructure providers, original equipment manufacturers, telematics and telecommunications providers, mobile phone transportation applications and more.

Booth Sales & Exhibitor Information
To reserve a booth contact Carly DiVito at Corcoran Expositions, Inc. at 312.541.0567 or carly@corcexpo.com.

Become a Member and Save
Learn more about ITS America and the benefits to membership by contacting, Jennifer Harrison at 202.721.4203 or jharrison@itsa.org.

Reserve Online Now at www.itsannualmeeting.org/exhibit

Exhibition Opening Dates and Times

Exhibit Hall Ribbon Cutting
Monday, June 1
10:30 a.m.

Exhibition Hall Hours of Operation

Monday, June 1
10:30 a.m. – 6:30 p.m.
Tuesday, June 2
9:30 a.m. – 4:00 p.m.

2015 ITS Annual Meeting Exhibitors*

Activu Corporation
Adaptive Micro Systems Inc.
AEGOM
All Traffic Solutions
Alpha Technologies Ltd.
American Signal Company
AVISEC
Axis Communications Inc.
Blue Earth Energy Power Solutions
Caliper Corporation
CITILEG, Inc.
CohuHD
COMNET Communications Networks
Control Corp
Consensus Systems Technologies Corp.
Core Tec Communications LLC
Cubic Transportation Systems
Daktronics, Inc.
Eberle Design Inc.
Econolite Group, Inc.
Environmental Systems Research Institute, Inc. (ESRI)
GEWI Europe GmbH & Co.
Germany KG
GRIDSMART Technologies, Inc.
Harbrick
Image Sensing Systems
IMSA International Municipal Signal Association
Information Display Company
Information Logistics Inc.
Inrix
Inteltigent
Intellipower Inc.
Intercomp
Iteris, Inc.
International Road Dynamics
ITS Canada
ITS International
Kapsch TrafficCom USA
Kimley-Horn and Associates, Inc.
Kistler Instrument Corporation
Kyland Corporation America
Laser Technology, Inc.
Luft USA, Inc.
Lumenera Corporation
MG Squared Lowering Systems
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MetroTech Net, Inc.
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Mitsubishi Electric Visual and Imaging Systems
Mobile Mark, Inc.
Moxa, Inc.
Multilink, Inc.
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Pennsylvania Department of Transportation
Pennsylvania Turnpike Commission
Phoenix Contact
PTV Group
QvisionTechnology
Rosco Vision Systems
Rugged Science
Scheidt & Bachmann USA, Inc.
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Sensys Networks, Inc.
SES America
Siemens
Siemens Ruggedcom
Skyline Products, Inc.
Skyline Technology Solutions
Smart Micro
Solar Technology, Inc.
Southwest Research Institute
Swarco AG
Thales Transport and Security
Thinking Highways
TKH Security Solutions - USA
Traffic 21 Institute Carnegie Mellon University
Traffic Technology International
TrafficCast International, Inc.
TrafficVision
Trafficware, Ltd.
TransCore
Transportation Research Board
Transportation Management & Engineering
TSS - Transport Simulation Systems
Uber Technologies, Inc.
Unified Intelligence, LLC
Vaisala
Vector CANtech, Inc.
Ver-Mac
Versalis Inc.
Virginia Tech Transportation Institute
Wanco Inc.
Wavetronix, LLC
Wireless Technology / WTI
Xerox

*= ITS America members

2015 ITS America Annual Meeting & Expo
ITSAmerica’s 25th ITS Annual Meeting and Expo would not be possible without the support and dedication of our Organizing Committee and subcommittee volunteers. Thank you for all you have done and continue to do.

**Communications Subcommittee Co-Chairs**

- **Amber Reimnitz**, ITS Engineering Project Manager, Pennsylvania Turnpike Commission, President, ITS Pennsylvania
- **Chuck Yorks**, Incident Management & Emergency Management Specialist, Gannett Fleming, Inc.
- **Exhibitor Advisory Subcommittee Co-Chairs**
  - **Kevin Francis**, Sales Manager, M.H. Corbin
  - **Jason Previte**, ITS Specialist & Traffic Operations Division Manager, Gibson-Thomas Engineering Company
- **Strategic Partnerships Subcommittee Co-Chairs**
  - **Bob Taylor**, PTOE, Manager of Traffic Operations, Pennsylvania Turnpike Commission

**Laurie Matkowski**
Manager, Office of Transportation Operations Management, Delaware Valley Regional Planning Commission

**Government Relations Subcommittee Chair**

- **Douglas Tomlinson**, P.E., Chief, Traffic Operations, Pennsylvania DOT

**Local Arrangements Subcommittee Co-Chairs**

- **Anthony Castellone**, Division Manager, Pennoni Associates Inc.
- **Keith Johnson**, Traffic / Planning Director, URS Corporation
- **Doug Smith**, Transportation Planning Director, Southwestern Pennsylvania Commission

**State Chapters Subcommittee Co-Chairs**

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- **Daniel G. Corey**, P.E., Associate Vice President / Deputy ITS Practice Leader, AECOM

**Emergency Response Day Subcommittee**

- **AECOM**, Gannett Fleming, Inc., Southwestern Pennsylvania Commission

**Finance Subcommittee Co-Chairs**

- **Vijay Varadarajan**, Deputy Program Manager, Michael Baker International
- **Kevin Conahan**, Project Manager, McMahon Associates, Inc.
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