

23rd Annual Conference

Connecting Mobility & Safety



Dear ITS Arizona Members:

We welcome you to Arizona's leading transportation technology conference. We are at an exciting point of time where education and networking are critical as our industry transforms with new enabling technologies such as connected and autonomous vehicles. We want our agency members to be the leading problem solvers using technology to reduce congestion, enhance multi-modal mobility and roadway safety. ITS Arizona is unique in that it has members from public agencies, private companies, and academia. Coordination between these groups is important as we face new opportunities and challenges. Complex technology challenges require new levels of partnership that reduce risk and enhance value to all stakeholders.

Our program this year features sessions on ITS projects both local and national. Our Day 1 workshop brings industry leaders including Jonathan Walker with Federal Highway Administration from across the country together to showcase connected vehicle projects. Thanks to Jeff Jeng and Faisal Saleem for leading and organizing our Connected Vehicle workshop. We are also lucky to have a collaborative V2X technology demonstration with GRIDSMART and Denso showcasing enhanced intersection safety through technology. A special thanks to City of Mesa's Avery Rhodes and Mike Fisher for helping to make the demonstration possible. On Day 2, we have a full program starting with our keynote speaker, Jim Windsor followed by an engaging panel discussion on self-driving car policies. We are THANKFUL for our sponsors, exhibitors, volunteers, and speakers that make this conference possible.

This annual conference is our largest chapter event and you as a member are able to participate in our other activities throughout the year. These events would not be possible without the dedication and leadership of my fellow ITS Arizona Board Members and volunteers. Our current President, Jamie Blakeman has brought more service events to the community. Sanjay Paul has held technical meetings at our state universities (UA, ASU, NAU) to inspire our next generation of transportation professionals. Mike Sutton led our technical workshops. Yung Koprowski and Michelle Beckley led our Engineer's Week outreach to K-12 students. David Lucas is keeping us informed through website updates featuring the latest ITS news and information. Srini Goundla produced our newsletter featuring our activities. Kim Carroll has kept us organized to stay focused on achieving our goals. Ratna Korepella has maintained our financial records with a high level of integrity. Scott Miller prints and produces all our conference materials keeping our conference affordable to public agencies. Lastly, this conference would not happen without Karla Hunt's organization and attention to the details.

I am honored for this opportunity to serve as this year's Conference Chairman and Vice President.

Scott Clark

Scott Clark

Scott Clark- Vice-President and Conference Chairman, ITS Arizona

CONFERENCE CHAIR MESSAGE

Day 1—September 28, 2016

10:30A – 5:00P REGISTRATION OPEN

- 11:30A 12:00P LUNCH (MESA ROOM)
- 12:00P 1:00P WORKSHOP—PART I (MESA ROOM)
 - Workshop Introduction
 - Jamie Blakeman, ITS AZ President
 - Jennifer Brown, Federal Highway Administration
 - Jennifer Toth, Maricopa County Department of Transportation
 - ♦ Jeff Jeng, OZ Engineering
 - Connected Vehicle National Pilot Deployment Overview
 - ♦ Jonathan Walker, Federal Highway Administration
 - V2I Deployment Coalition
 - ♦ Faisal Saleem, Maricopa County Department of Transportation
- 1:00P 1:15P BREAK

1:15P – 2:45P WORKSHOP—PART II (MESA ROOM)

- New York City Connected Vehicle Deployment
 - ♦ David Benevelli, TransCore
- Tampa Florida and State of Wyoming Connected Vehicle Deployment
 - ♦ Jonathan Walker, Federal Highway Administration
- Arizona Connected Vehicle Deployment Experience (Maricopa County Anthem Test Bed)
 - Reza Karimvand, Arizona Department of Transportation
 - ♦ Larry Head, University of Arizona

2:45P - 3:00P BREAK

2:45P - 6:00P WORKSHOP PART III-CONNECTED VEHICLE DEMONSTRATION (V2I WITH DSRC)

Presented by Gridsmart / Denso ٠

3:00P – 7:00P VENDOR SHOWCASE OPEN AND SOCIAL NETWORKING

DEMONSTRATION

Don't miss the vehicle to infrastructure demonstration showing how Denso's 5.9 DSRC radio and GRIDSMART's GS2 can work together to not only help move traffic more efficiently through an intersection but also prevent the deaths of pedestrians and bicyclists. Participants will experience the demonstration first hand while riding on an air conditioned bus.





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Day 1

Lunch

Day 2

Breakfast

GRIDSMART

DENSO



Day 2

Breakfast



Day 1 Social Hour





Day 2 Lunch









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3:15P-4:45P BREAKOUT SESSIONS—#3 (DAY 2—SEPTEMBER 29, 2016)

SESSION 3A—FUNDING PANEL (CRISMON / SIRRINE ROOM)

Moderator – Wulf Grote, Valley Metro

- Current and Future Funding and Policy for Transportation Technology
- Karla Petty, Federal Highway Administration, Sarath Joshua, Maricopa Association of Governments, and Ray Dovalina, City of Phoenix

SESSION 3B—SAFETY (POMEROY ROOM)

Moderator – Kerry Wilcoxon, ADOT

- Detecting Impacts of Communication Loss on Signal Performance Using **Event-Based Data** – Chengchuan An, University of Arizona
- Implementation of AASHTOWare Safety Analyst™ by ADOT Pradeep Tiwari, Arizona Department of Transportation, Jothan Samuelson and Joe Brever, Works Consulting
- Total Cabling Infrastructure Protection that Reduces Time Incident Management and Saves Cost – Jeffery Dominique, FNT

SESSION 3C—TECHNOLOGY II (ROBSON ROOM)

Moderator – Luke Albert, City of Goodyear

- Data Collection/Performance Measures & ITS Safety Robert Morelli, and Steve O'Connor, Summit Traffic Solutions
- Active Traffic Management (ATM) System on I-66 Randy Dittberner, Lee Engineering, LLC
- Deployment of Shared Autonomous Vehicles in California Arya Rohani, Stantec Consulting

LEADERSHIP ITS AZ Board

Jamie Blakeman, President Scott Clark, Vice-President Kim Carroll, Secretary Ratna Korepella, Treasurer Khamchanh Ratsavong, Past President Jeff Jeng, Member-at-Large David Lucas, Member-at-Large Scott Miller, Member-at-Large Mike Sutton, Member-at-Large Michelle Beckley, Alternate Member-at-Large Sanjay Paul, Alternate Member-at-Large & Student Liaison



Day 2—September 29, 2016

7:30A – 8:30A REGISTRATION, BREAKFAST, AND VENDOR SHOWCASE

- Opening Remarks: Jamie Blakeman, ITS AZ President
- Arizona Self Driving Vehicle Oversight Committee Panel
 - ♦ Moderator Lisa Burgess, Kimley-Horn
 - ♦ Kevin Biesty, Arizona Department of Transportation
 - Hestin Silburt, Arizona Department of Public Safety
 - Brian Townsend, Arizona Governor's Office

10:00A – 10:30A VENDOR SHOWCASE

10:30A - 11:45A BREAKOUT SESSIONS (SEE PAGE 4)

11:45A – 1:00P LUNCH

- Past Presidents' Awards Ceremony
 - Scott Miller, ITS AZ Board Member
 - Jamie Blakeman, ITS AZ President
- AZTech—20 Years of Innovation
 - Jennifer Toth, Maricopa County Department of Transportation
 - Dallas Hammit, Arizona Department of Transportation



AZTech is a regional traffic management partnership in the Phoenix Metropolitan Area. All of the major governmental transportation agencies along with some public safety agencies in the region are members. The partnership, led by the Maricopa County Department of Transportation (MCDOT) and the Arizona Department of Transportation (ADOT), works through several collaborating committees to guide the application of ITS technologies for managing regional traffic.

As one of the four regions selected as part of the Federally-sponsored Intelligent Transportation Systems Model Deployment Initiatives (MDI) in 1996, AZTech has become a mechanism for regional collaboration and integration. It has developed and assimilated the latest in innovative transportation technology, demonstrating the distinct and measurable advantages of a multi-agency regional traffic management operating coalition.

1:00P – 1:30P VENDOR SHOWCASE

1:30P – 2:45P BREAKOUT SESSIONS (SEE PAGE 5)

2:45P – 3:15P VENDOR SHOWCASE

- 3:15P 4:45P BREAKOUT SESSIONS (SEE PAGE 6)
- 4:45P 5:00P CLOSING SESSION
 - ITS AZ Election and Bylaws Amendment Results: Jamie Blakeman, ITS AZ President
 - ITS AZ Prize Raffle: ITS AZ President Elect

8:30A – 10:00A OPENING REMARKS, KEYNOTE SPEAKER, & PANEL DISCUSSION (MAIN HALL)

Keynote: Jim Windsor, Deputy State Engineer of Arizona Department of Transportation



10:30A—11:45A BREAKOUT SESSIONS—#1 (DAY 2—SEPTEMBER 29, 2016)

• SESSION 1A—TRAVELER INFORMATION SYSTEMS (CRISMON / SIRRINE ROOM)

Moderator - Steve Ramsey, Arizona Department of Transportation

- Multimodal Real-time Traveler Information System for Connected Mobility – Sanjay Paul, Lee Engineering, LLC
- Multi-resolution Approach in Investigating the Impacts of Pre-planned Road Capacity Reduction – Xianbiao Hu, Metropia, Inc., Yi-Chang Chiu, University of Arizona
- V2I"f": Cars to Infrastructure on the Cheap Matt Ginsberg, Connected Signals Inc.

SESSION 1B—PERFORMANCE MEASURES (POMEROY ROOM)

Moderator – Sarath Joshua, Maricopa Association of Governments

- MCDOT Traffic Signal Management, Operations, and Maintenance **Program** – April Wire, Maricopa Department of Transportation and Sarah Simpson, United Civil Group
- Outfitting Next Generation Hi-Resolution Signal Performance Measures in Portland, Oregon – Shaun Quayle and Felipe Ladron De Guevara, Kittleson & Associates, Inc.
- Applications of Event Based (High Resolution) Traffic Signal Data -Yao-Jan Wu and Chengchuan An, University of Arizona

SESSION 1C—TECHNOLOGY I (ROBSON ROOM)

Moderator – Faisal Saleem, Maricopa Department of Transportation

- Pavement Data Collection: What Bikes Could Tell Us Miranda Aakre and Cristian Tafoya, Northern Arizona University
- The Connected Responder: Demonstrating How V2V and V2I Will Drastically Improve Responder Safety and Efficiency - Adam Hopps, Toxcel and Patrick Son, National Operations Center of Excellence
- Improving Emergency Vehicle Response Times with Traffic Signal **Preemption on the Las Vegas Strip** - Mike Lemon, Global Traffic Technologies

LEARNING

What is the ITS Professional Capacity Building Program?

The ITS Professional Capacity Building Program (PCB) provides the ITS workforce with flexible, accessible ITS learning through training, technical assistance and educational resources. The program assists transportation professionals in developing their knowledge, skills, and abilities to build technical proficiency while furthering their career paths. In addition to providing learning opportunities, the PCB Program oversees technology-transfer activities that are designed to inform public agencies about the status of new ITS technologies research being conducted by the USDOT.

ACHIEVEMENTS Past Presidents' Awards

The annual awards ceremony, held after the lunch keynote speaker, will highlight some of the outstanding statewide ITS projects completed during the last year. Awards will be given in the categories of "Best ITS Planning Project," "Best ITS Implementation Project" and "Best New or Updated ITS Industry Product." In addition, the ITS Arizona Member of the Year will be honored at this event.

1:30P—2:45P BREAKOUT SESSIONS—#2 (DAY 2—SEPTEMBER 29, 2016)

SESSION 2A—SMART CITIES (CRISMON / SIRRINE ROOM)

Moderator – Debbie Albert, City of Glendale

- Transportation Nerve Centers Bob Edelstein, AECOM
- Smart Cities, the Next Wave of Transportation Technology Innovation
- Scott Clark, Clark Transportation Solutions
- Impacts of Traffic Controls on Distributed Traffic Monitoring Li Peiheng, Arizona State University

 SESSION 2B—MOBILITY\TRANSIT (POMEROY ROOM) Moderator – Ratna Korepella, City of Scottsdale - Autonomous Transit Vehicles: Past, Present, and Future – Scott Miller,

- HDR, Inc.
- Bike Counting Methods for Public Transportation Systems Rebecca Santiago, HDR, Inc. (ITS AZ Sponsored Intern)
- Development and Deployment of a Pedestrian Priority Algorithm -Edward Smaglik, Northern Arizona University

SESSION 2C—DETECTION (ROBSON ROOM) Moderator – Avery Rhodes, City of Mesa

- Optical Based Loop Detection – Jeffery Dominique, FNT - Acyclica Freeway and Arterial Data – Zac Ward, AM Signal Inc. - Wrong Way Detection - Matt Zinn, Reno A&E

