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A Conduit to the Future















CONFERENCE CHAIR MESSAGE

Dear ITS Arizona Members:

As this year's Conference Chairman, it is my pleasure to welcome you to the 22nd ITS Arizona Annual Conference.

The ITS Arizona Board of Directors and I are very excited to bring to you a conference program packed with sessions from leading agencies, consultants, educators, and vendors both locally and nationally, dedicated to advancing research, development and deployment of Intelligent Transportation Systems. The power of our conference lies in the contribution of participants: sharing new technologies and advancements, best practices and lessons learned, and networking. This collaboration is the foundation for taking our industry to the next level, allowing us to raise the quality of life, increase safety, and enhancing mobility for all users. THANK YOU! This conference could not have been possible without the support of sponsors, exhibitors, speakers, volunteers, and most importantly YOU the attendees.

I would especially like to thank the ITS Arizona Officers and Board of Directors. I am privileged to be working alongside these amazing individuals who dedicate countless hours above and beyond their work and personal commitments to pull together this amazing event. They are passionate about this organization and bringing value to our membership. Along with our Annual Conference and all the details that go into putting together a successful event, these individuals have made a commitment to expand our outreach efforts beyond the technical workshops (led by Mike Sutton), Joint ITE/ITS meetings and events (led by Yung Koprowski), and quarterly newsletters (led by Scott Clark), new to this year included the following:

PARTNERING WITH ITS AMERICA — This year we made a commitment to send not just the President (Khamchanh Ratsavong), but also the Treasurer (Kim Carroll) to the ITS America conference held in Pittsburg, Pennsylvania.

COMMUNICATION IS KEY — With the dedication and commitment of Scott Clark, we have sent out regular newsletters to our membership sharing past events and announcing upcoming events. Our website is constantly being updated with current ITS advancements, articles, and job postings thanks to David Lucas!

HAVING FUN WITH OUR MEMBERSHIP — This year we have had two social events for our membership. The first held earlier in the year and offered FREE spring training tickets and food for members and their families. The second event offered our members an opportunity to enjoy TopGolf. Kiran Guntupalli and Khamchanh Ratsavong both led the efforts in organizing these events.

INVESTING IN STUDENTS – Student outreach is a key emphasis area. Along with the Womens' Transportation Seminar (WTS) we have partnered with Lee Engineering and Valley Metro to provide two (2) paid student internships. Currently Michelle Beckley is an ITS Arizona intern at Lee Engineering, and Valley Metro is actively seeking to fill the second ITS Arizona intern position. Sanjay Paul is serving as the Board's student liaison and is planning meetings/lunches with each of the three local universities: University of Arizona, Northern Arizona University and Arizona State University. As always, we are active participants with the Future Cities Competition where this year Scott Miller, Kim Carroll and Ratna Korepella served as judges. Additionally, we are looking to increase our support of eWeek (Engineer's Week). This year Kim Carroll and I attended the eWeek (Engineer's Week) Gala Event held at the Tempe Center for the Arts.

SERVING THE COMMUNITY - This year the Officers and Board wanted to find ways to "give back" and "reach out." During the month of August, we served at both Feed My Starving Children and the Ronald McDonald House. We packed enough meals to feed 36 children in the Philippines for an entire year at Feed My Starving Children. At the Ronald McDonald House, led by Yung Koprowski and Kim Carroll, we spent hours making a hot home cooked meal for families with children receiving treatment. ITS Arizona also made a financial contribution to both organizations thanks to all of YOU!

And last, but certainly not least, this year's conference is extra special as it is dedicated to our very own Pete Yingling. He served our industry for many years and remained active with ITS Arizona. All of us on the Board vividly recall the day Pete announced that he will do his best to continue to serve on the Board while he was facing health concerns. He continued to actively participate in Board meetings and organized Technical Sessions through 2014. Pete, thank you from the bottom of our hearts for all you have done, you will be greatly missed!

Thank you for allowing me to serve as this year's Conference Chairman and Vice President. I truly look forward to the year ahead!

Mahalo and Aloha.

Jamie Blakeman

Jamie Ann K. Blakeman— Vice-President and Conference Chairman, ITS Arizona

September 30 — October 1, 2015 | Mesa, Arizona | Mesa Convention Center

Day 1—September 30, 2015

11:00A - 5:00P REGISTRATION OPEN

11:30A – 12:00P LUNCH AND WELCOMING REMARKS (MESA ROOM)

• Kelly LaRosa, Transportation Specialist, Federal Highway Administration

12:00P - 2:00P USDOT PCB COURSE - IMPROVING SAFETY WITH ITS (MESA ROOM)

- Sean Murphy, Transportation Specialist, ITS America
- Greg Hatcher, Senior Transportation Engineer, Noblis
- Cheryl Lowrance, Principal ITS Engineer, Noblis

2:00P - 2:15P BREAK

2:15P – 4:00P USDOT PCB COURSE - IMPROVING SAFETY WITH ITS CONTINUED (MESA ROOM)

4:00P – 7:00P VENDOR SHOWCASE OPEN AND SOCIAL HOUR



Greg Hatcher is a project manager and senior transportation engineer for Noblis in Washington, DC, with 24 years of ITS experience. Mr. Hatcher currently provides technical and management services to the USDOT ITS program on tasks including the Evaluation Program, Professional Capacity Building, and Integrated Corridor Management (ICM), and manages the team of analysts responsible for providing contents for and improving the ITS Benefits, Costs, and Lessons Learned Knowledge Resources for the ITS Joint Program Office. Mr. Hatcher managed the Noblis team in executing the U.S. DOT Longitudinal Study of ITS Implementation project that identified the key factors for adopting or

expanding ITS implementations. He recently prepared a synthesis of available benefits information for V2I safety applications. He received his Bachelor and Master of Science degrees in Civil Engineering from the University of Texas at Austin.



Cheryl Lowrance is a Principal ITS Engineer for Noblis. Ms. Lowrance has 31 years of experience in traffic engineering and transportation management including project management, design, implementation, and operations of traffic signals, traffic signal systems, traffic information systems, traffic incident management systems, and freeway surveillance systems. She is currently supporting the USDOT Intelligent Transportation Systems Joint Program Office (ITS JPO). She currently supports the ITS Professional Capacity Building Program (PCB), the ITS Evaluation Program, the development of the MMITSS Research Plan through the V2I Communications for Safety Technical Support Program. Ms.

Lowrance holds a Bachelors of Civil Engineering from Tennessee Technological University. She holds a Professional Engineers License in Virginia and a Professional Traffic Operations Engineer certification.

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's ITS Program.



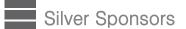


Expect More. Experience Better.



































Day 1 Lunch

Day 1 Social Hour

Day 2 Breakfast

Day 2 Lunch

Attendee Gift



Lanyard



Newsletter /

Website



Student &

Print Media





Raffle

Prize



Student

Student

3:30P-5:00P BREAKOUT SESSIONS—#3 (DAY 2)

• SESSION 3A (CRISMON / SIRRINE ROOM)

Moderator – Brent Cain, Arizona Department of Transportation

- The Next Generation of Freeway Management is Coming to Arizona Spine Near Term Improvements Farzana Yasmin, ADOT TTG and John Kissinger, Kimley-Horn
- AZTech's Big Data Vision in Support of Future Regional Transportation
 Initiatives Faisal Saleem, MCDOT and Jeff Jenq, OZ Engineering
- Development of Integrated Corridor Management Strategies using Advanced Simulation Modeling Results Eric Nava, MAG

• SESSION 3B (POMEROY ROOM)

Moderator – Steve Ramsey, City of Scottsdale

- Statistical Validations for Evaluation of Bluetooth/Wi-Fi Technology on Urban Freeway Applications – Sanjay Paul, Lee Engineering and Andy Murray, ADOT TTG
- ARID Technology Verification on Arterials and AZ-MX Ports of Entry Yung Koprowski and Michelle Beckley, Lee Engineering
- Arterial Performance Measurement using Multi-Source ITS Data Yao-Jan Wu, University of Arizona

• SESSION 3C (ROBSON ROOM)

Moderator – Trevor Ebersole, City of Glendale

- Enhancing Traveler Information on the Arterial Network to the Media and Public through the Arizona 511 system — Kavya Sambana, Iteris and Jothan Samuelson, Wilson & Company
- Are Intelligent Street Lights in our future? Lenny Hulme, City of Mesa and Scott Clark, Clark Electric Sales
- Improving TIM with ITS Barbara Hauser, Maricopa County REACT

LEADERSHIP

ITS AZ Board

Khamchanh Ratsavong, President
Jamie Blakeman, Vice-President
Scott Clark, Secretary
Kim Carroll, Treasurer
Jeff Jenq, Immediate Past President
Yung Koprowski, Member-at-Large

David Lucas, Member-at-Large
Sanjay Paul, Member-at-Large
Mike Sutton, Member-at-Large
Kiran Guntupalli, Alternate Member-at-Large
Ratna Korepella, Alternate Member-at-Large
Scott Miller, Alternate Member-at-Large



Day 2—October 1, 2015

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

8:30A - 9:30A OPENING REMARKS

- Khamchanh Ratsavong, ITS AZ President, City of Scottsdale
- Karla Petty, Arizona Division Director, Federal Highway Administration



Karla Petty is Federal Highway Administration's Division Administrator for Arizona. She has held this position since January 2011. As the Division Administrator she leads an office of professionals that deliver the Federal-aid Highway Program in Arizona. She and her staff provide leadership, program assistance, oversight and guidance to the Arizona Department of Transportation, Metropolitan Planning Organizations, local and tribal governments.

Maricopa County Special Demonstration

9:30A - 10:00A VENDOR SHOWCASE

10:00A - 11:30A BREAKOUT SESSIONS (SEE PAGE 4)

11:30A - 1:00P LUNCH



Patrick Ibarra is an entrepreneur of ideas and architect of innovation, who seeks to challenge the status quo thinking of "we've always done it that way" and replace it with a progressive approach to continuous improvement. With experience as a city manager, human resource director and consultant in a Fortune 500 company, he advises government leaders and high achievers from around the world, helping them clarify their direction, focus their efforts and execute to achieve sustainable change and improved performance.

Patrick is co-founder and partner of the Mejorando Group, a change and organizational effectiveness consulting firm based in Glendale that brings fresh thinking, innovation, and next practices to help governments succeed in the 21st century. Mejorando is a Spanish word meaning "getting better all the time" and it reflects Patrick and his firm's approach with clients who seek to improve the performance of their organizations and the individuals within them.

- ITS AZ Election Results Khamchanh Ratsavong, ITS AZ President, City of Scottsdale
- Past Presidents' Awards Ceremony Scott Miller, ITS AZ Board Member and Jeff Jenq, ITS AZ Past President
- Student Paper Contest Results Jamie Blakeman, Conference Chair, J2 Engineering

1:00P - 1:30P VENDOR SHOWCASE

1:30P - 3:00P BREAKOUT SESSIONS (SEE PAGE 5)

3:00P - 3:30P VENDOR SHOWCASE

3:30P – 5:00P BREAKOUT SESSIONS (SEE PAGE 6)

5:00P - 5:15P CLOSING SESSION

• ITS AZ Prize Raffle – ITS AZ President Elect

10:00A—11:30A BREAKOUT SESSIONS—#1 (DAY 2)

• SESSION 1A (CRISMON / SIRRINE ROOM)

Moderator – Bruce Littleton, City of Phoenix

- Road Map of the AZTech Regional Information System (ARIS) Faisal Saleem, MCDOT, Jeff Jeng, OZ Engineering
- Efficiency and Safety of Dynamic Advance Detection Steve O'Connor, Summit Traffic Solutions
- Mesa Adaptive Control Update Tricia Boyer, City of Mesa
- Emergency Vehicle Pre-emption Best Practices, Findings, &
 Recommendations Micah Henry, MAG

• SESSION 1B (POMEROY ROOM)

Moderator – Luke Albert, City of Goodyear

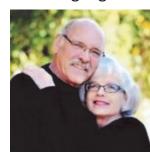
- Intersection Performance and Safety Analytics Chris Flores, Sensys Networks
- Bike Detection Using Inductive Loops Matt Zinn, Reno A&E
- Bicycle Detection with Smartphones Stewart Allen, Kimley-Horn

• SESSION 1C—STUDENT PAPER SESSIONS (ROBSON ROOM)

Moderator – Arthur Dock, City of Mesa

- A city with fully coordinated vehicle sharing system: finding optimal solutions for vehicle routing problem with pickup and delivery services with time windows - Monirehalsadat Mahmoudi
- A distributed framework for network-wide traffic monitoring and platoon information aggregation using v2v communications - Peiheng Li
- Estimating freeway travel times using general motors model Shu Yang

HONORINGPete Yingling



Mr. Paul L. Yingling "Pete," passed away on Tuesday, Nov. 18, 2014 in Glendale, Arizona. Pete is survived by his loving wife Debbie Godfrey Yingling of 42 years of marriage, sons Keith, wife Jeana and Kevin, wife Stephanie. Also surviving are Pete's grandchildren Hannah and Easton, and Pete welcomed into his family Braydon and Caitlyn Bell. Pete leaves behind his mother Dorothy and 3 sisters. Pete is predeceased by his father Luther Howard Yingling. Pete was born on September 27, 1952 in Carlisle, Pennsylvania. He married Debbie, his high school sweetheart on November 25, 1972 in York, PA. Pete served honorably for four years in the United States Air Force, was honorably discharged, and remained a proud veteran and patriot throughout his life.

Pete was employed with the City of Phoenix, and was well respected by his crews for his dedication, professionalism and integrity of service. Pete was a current ITS Arizona Board member and will be remembered for his service to both ITS Arizona and IMSA. His advocacy and dedication to the intelligent transportation system community will be missed.

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—3:00P BREAKOUT SESSIONS—#2 (DAY 2)

• SESSION 2A (CRISMON / SIRRINE ROOM)

Moderator - Sarath Joshua, Maricopa Association of Governments

- Arizona Connected Vehicle Reza Karimvand, ADOT TTG, Faisal Saleem, MCDOT, and Larry Head, University of Arizona
- Truck Automation: Challenges and Opportunities Mohammad Poorsartep, TTI
- AZ 2 V2I John Lower, Iteris

• SESSION 2B (POMEROY ROOM)

Moderator – Todd Taylor, City of Scottsdale

- Recent IT Transit Innovations in SF Bay Area Wil Buller, AC Transit
- Mobility on Demand: 21st Century Approach to Connecting Veterans with Transportation Services – Melissa Park, Congestion Reduction Dept LA County Metro/LA SAFE and Melissa Hewitt, Kimley-Horn
- -Transit Automatic Passenger Counters: A Tool for Smart Decision Making – Ratna Korepella, City of Scottsdale, Scott Miller, HDR, and Kevin Teng, City of Phoenix Public Transit Department

• SESSION 2C (ROBSON ROOM)

Moderator – Erik Guderian, City of Mesa

- MAG STSP Strategies for Improving Road Safety via Traffic Operations and ITS Solutions Margaret Boone, MAG
- Glendale-Flashing Yellow Arrow Implementation Kiran Guntupalli, City of Glendale and Suzy Chambers, Dibble Engineering
- Detection and Warning System for Wrong-Way Driving Sarah Simpson, United Civil Group and Toni Whitfield, FHWA