





Connecting people and communities

and transforming mobility through data-enabled, equitable and sustainable solutions.









Powering an inclusive recovery today as we build the critical infrastructure of tomorrow.

cisco.com/go/transportation

cisco.com/go/countrydigitization





Dear Conference Attendees.

A warm welcome goes out to all of you attending the ITS California's 26th Annual Conference and Exhibition at the Hilton San Diego Bayfront. We have been offering an industry-best event for more than two decades focused on cutting edge technical content, shared peer-to-peer experiences, and networking opportunities. At our last meeting in 2019, we had over 1100 professionals come together in Los Angeles (45 percent of whom were public sector staff) to learn about technology, share experiences, and network. We hope that you find our 2021 event equally enriching.

You will find a wide range of experiences in this year's program, including:

- Three outstanding keynote speakers that will bring unique perspectives about how technology can improve equity and access to transportation;
- Fourteen technical sessions featuring over 50 speakers;
- Midway Aircraft Carrier tour;
- Qualcomm Smart Cities Tour;
- The ever-popular Vendor Technology Showcase with fun activities and prizes;
- Exhibit Hall with 65 vendors and solution providers;
- Three networking receptions including Petco Park on Tuesday evening.

ITS California is a non-profit organization that relies on volunteers, sponsors and members to continue to provide a positive impact on the growth of our industry. Many thanks go out to the dozens of volunteers who made this year's conference possible and to our sponsors, without whom we would not be able to maintain the high level of quality that we have come to be known for. You can find our sponsors on our website, here in our program, and prominently displayed at the beginning of each session.

Please enjoy the conference and we hope to see you at our future workshops, luncheons, and the 27th Annual Conference and Exhibition in San Francisco in May 2022.



Steven Gota
Executive Officer, Highway Program
LA Metro

ITS California President and Board Chair



Mike McIntee
Vice President, Western Sales
Econolite

ITS California Event Committee Chair



SUNDAY, AUGUST 8, 2021		LOCATION	EXHIBIT HALL
8:00 A.M. – 1:00 P.M.	Golf Tournament	Mission Trails Golf Course	
12:00 P.M. – 7:00 P.M.	Exhibit Hall Setup	Sapphire Ballroom	SET-UP
6:00 P.M. – 8:00 P.M.	Welcome Reception	Sapphire Terrace/Foyer	

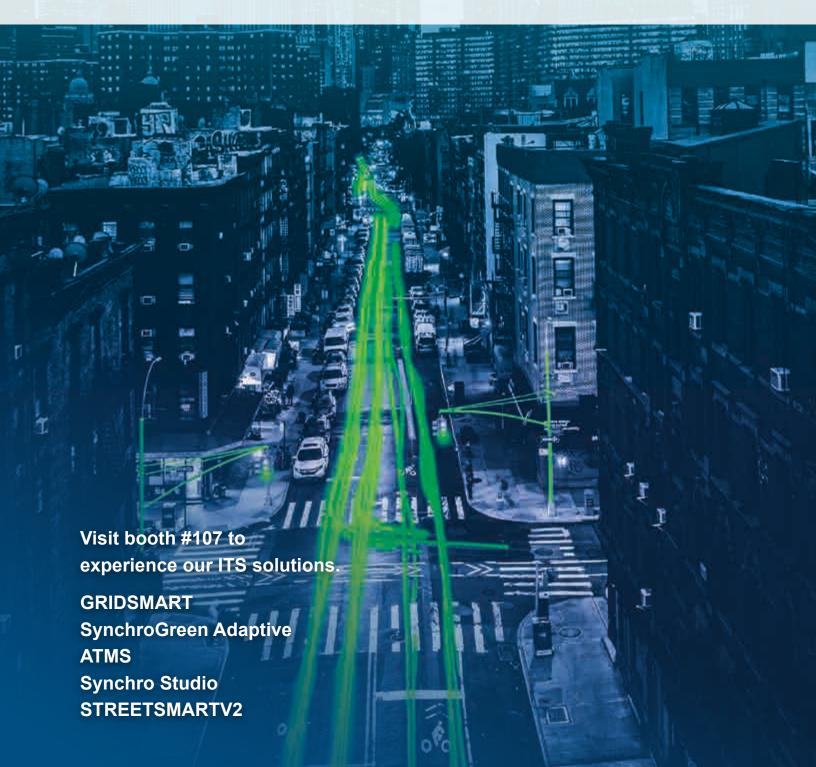
DAY 1 - MOND	AY, AUGUST 9, 2021	LOCATION	EXHIBIT HALL	TOUR	EVENT
8:00 A.M 9:00 A.M.	Breakfast/Registration	Sapphire Terrace/Foyer	CLOSED		
9:00 A.M. – 10:15 A.M.	Session 1 – "Modernization & Mobility: How Transportation is Transforming in the Cloud"	Sapphire DH	CLOSED		
10:15 A.M. – 10:45 A.M.	Break (Refreshments)	Sapphire Ballroom	OPEN		
10:45 A.M. – 12:15 P.M.	Session 2 – "Goods Moving! Technology Accelerating"	Sapphire DH	OPEN		
10:45 A.M. – 12:15 P.M.	Session 3 – "Spotlight on Transit Technology and Data Innovation"	Sapphire LP	OPEN		
12:15 P.M. – 1:45 P.M.	Lunch Keynote Speaker: Hasan Ikhrata – CEO, SANDAG	Indigo ABEF	OPEN		Donation
1:45 P.M. – 3:15 P.M.	Session 4 – "Tackling Transporation Equity Post-COVID"	Sapphire DH	OPEN		Event -
1:45 P.M. – 3:15 P.M.	Session 5 – "The Wheels on the Bus Go Faster! Speeding Up Your Bus Through Traffic Signals"	Sapphire LP	OPEN		- AS YMCA San Diego
3:15 P.M. – 3:30 P.M.	Break (Refreshments)	Indigo ABEF	OPEN		12 P.M. – 8 P.M.
3:30 P.M. – 5:00 P.M.	Vendor Technology Showcase	Indigo ABEF	CLOSED		_ 07.IVI.
5:00 P.M. – 8:00 P.M.	Thank You To Our Exhibitors and Sponsors Reception	Sapphire Ballroom	OPEN		

DAY 2 - TUES	DAY, AUGUST 10, 2021	LOCATION	EXHIBIT HALL	TOUR	EVENT
8:00 A.M. – 9:00 A.M.	Breakfast/Registration	Sapphire Ballroom	OPEN	Qualcomm - Smart Cities	
9:00 A.M. – 10:30 A.M.	Session 6 – "California Dreamin"	Sapphire DH	OPEN	Tour	
10:30 A.M. – 12:00 P.M.	Break/Exhibit Hall Exclusive Access	Sapphire Ballroom	OPEN	8:30 A.M. – 11:30 A.M.	Baradan
12:00 P.M. – 1:30 P.M.	Lunch Keynote Speakers: • Shailen Bhatt – President and CEO, ITS America • Matthew Tucker – CEO, North County Transit District	Indigo ABEF	OPEN		Donation Event - AS YMCA San Diego
1:30 P.M. – 3:00 P.M.	Session 7 – "Reaching a Carbon-Neutral Transportation System"	Sapphire DH	OPEN		8 A.M. –
1:30 P.M. – 3:00 P.M.	Session 8 – "Technology Makes Our Roads Safer! – Applying ITS for Safety"	Sapphire LP	OPEN		3:30 P.M.
3:00 P.M. – 3:15 P.M.	Break (Refreshments)	Sapphire Ballroom	OPEN		
3:15 P.M. – 4:45 P.M.	Session 9 – "Moving from 'Smart Cars and Dumb Roads' to 'Smart Cars and Smart Infrastructure'"	Sapphire DH	OPEN		
3:15 P.M. – 4:45 P.M.	Session 10 – "Not-So-Big Data"	Sapphire LP	OPEN		
3:30 P.M.	Exhibit Hall Closes	Sapphire Ballroom	CLOSED		
6:00 P.M. – 10:00 P.M.	Meet Your Board of Directors Reception	Petco Park	CLOSED		

DAY 3 - WEDNESDAY, AUGUST 11, 2021	LOCATION	EXHIBIT HALL	TOUR	EVENT
8:00 A.M. – 9:00 A.M. Breakfast/Registration	Sapphire Terrace	CLOSED		
9:00 A.M. – 10:30 A.M. 🔯 Session 11 – "The Road to C-V2X"	Sapphire CG	CLOSED	U.S.S.	
9:00 A.M. – 10:30 A.M. 🔯 Session 12 – "MaaS – Mobility Solution for a Post-COVID World?"	Sapphire DH	CLOSED	Midway Tour	
10:30 A.M. – 10:45 A.M. Break (Refreshments)	Sapphire West Foyer	CLOSED	9:30 A.M. –	
10:45 A.M. – 12:00 P.M. 🔯 Session 13 – "A Vision for Vehicles of the Future"	Sapphire CG	CLOSED	12:00 P.M.	
10:45 A.M. – 12:00 P.M. Session 14 – "Cloud and AI - Helping Agencies Solve Traditional Transportation Problems Using Non-Traditional Methods"	Sapphire DH	CLOSED		
12:00 P.M. – 1:00 P.M. Box lunches to be provided for all attendees	Sapphire Foyer	CLOSED		



Adapting to the needs of your roadways and leading the Mobility Movement.



































commsignia





































































































ECONOLITE



340+ Systems Deployed

160,000+ Sensors Deployed Countless+
Cabinets Deployed

120,000+ Controllers Deployed

One-Stop-Shop

Traffic Management Solutions

From system-planning, design, operations, field-support, and consulting services for Connected and Automated Vehicles (CAVs), to our four-pillar products:

Systems, Sensors, Cabinets and Controllers.

Visit Econolite's booth (#105)

Participate in a 10-minute One-Stop-Shop demo and be entered into a drawing to win a Quadcopter 4K drone!*

www.econolite.com



www.itsamericaevents.com

Join us for Transformation by Transportation as we gather to experience how technology is being deployed to transform transportation – using AI to more efficiently operate systems, deploying personal delivery devices to assess infrastructure, creating the nation's first zero emission delivery zone, and so much more to ensure a safer, green, smarter, and more equitable future.









Organized by







Co-Organized by









Monday Reception Sponsor

Kimley»Horn

Bag Sponsor



Wifi



Lanyard



Vendor Showcase



Monday Breakfast Sponsor









Platinum







Gold







FDR



Silver

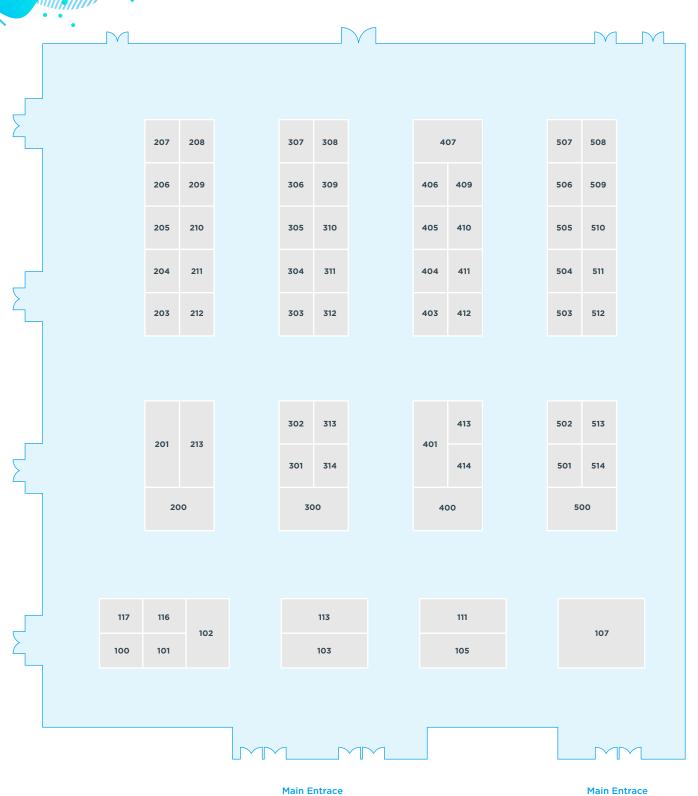


Bronze

















Steven Gota Executive Officer, Highway Program

President and Board Chair



Alyssa Phaneuf Vice President Kimley-Horn and Associates, Inc.

Southern California Section



Jane White Senior Civil Engineer LA County Dept of Public Works -Retired

Board Member



Daniel A. Lukasik Vice President

Membership Committee Chair



James Dreisbach-Towle Director of Business Information and Technology Services SANDAG

Board Member



Jim Misener Senior Director Qualcomm

Awards and Scholarships Chair



Victor H. Koo Project Manager – ITS Program City of Pasadena

Board Member



Katherine Mertz Director of Sales Sensys Networks

Communications Committee Co-Chair



Carol Kuester Director, Electronic Payments

Nominating Committee Co-Chair



Carlos Ortiz Chief Operating Officer ADVANTEC

Partnership Committee Chair



Jesse Bhullar Division Chief of Traffic Operations Caltrans

Board Member



Josh Peterman Principal Fehr & Peers

Website Committee Co-Chair



Kenny Chao Principal **AET & Associates**

Treasurer



Mike McIntee Vice President, Western Sales **Econolite**

Event Committee Chair



Hema Nagarajan Engineer

WSP USA

Northern California Section Co-Chair



Steven Bradley Vice President Iteris, Inc.

Board Member



Aravind Kailas, PhD Advanced Technology Policy Director Volvo Group North America

Communication Committee Co-Chair



Mark Jensen Principal **Cambridge Systematics**

Nominating Committee Co-Chair



Wendy Tao Head of Mobility Solutions Siemens ITS

Diversity, Equity and Inclusion Committee Chair



Antonino Genoese Senior ITS Engineer Jacobs

Board Member



Ben McKeever **CAV Program Manager UC Berkeley PATH**

Board Member

Advanced Mobility Systems: Designing for Tomorrow's Movement

We're facing a new generation of challenges and opportunities in moving people, goods, and services. At Jacobs, we're going beyond the typical solution of building our way out of gridlock and congestion by putting our curious minds to work to create a smarter, more connected world.

We're pushing the limits of what's possible.



WE'RE HIRING!

We are looking for ITS and traffic engineers for our California practice. Contact Brian Burkhard, Global Technology Leader - Advanced Mobility Systems, Brian.Burkhard@Jacobs.com.

Follow us @JacobsConnects | jacobs.com















LA County (Retired)



















AET & Associates



Victor H. Koo City of Pasadena



Volvo Group North America



ADVANTEC







D4 Light-Rail Corridor - The Embarcadero - City of San Francisco, CA

info@4dtraffic.com



1200 Roosevelt.

Irvine, CA 92620

AN SBE/DBE FIRM www.advantec-usa.com



SMART SOLUTIONS FOR SMART CITIES

WHERE INNOVATIONS MEET INTERSECTIONS

McCain offers an extensive portfolio of smart solutions for smart cities. From our industry leading ATC Cabinets and Dynamic Message Signs to our advanced traffic management solutions or our parking guidance and wayfinding solution, OPTIPARK®, McCain has everything you need to get your city moving faster, smarter, and more efficiently.

INTELLIGENT TRANSPORTATION SOLUTIONS

- DYNAMIC MESSAGE SIGNS
- PARKING GUIDANCE& WAYFINDING
- SIGNAL PERFORMANCE MEASURES/ANALYTICS
- INTERSECTION CONTROL SOFTWARE
- ATC CABINETS

#SmartCities #ITS

www.mccain-inc.com/did-you-know



BREAKFAST/REGISTRATION 8:00 A.M. – 9:00 A.M.

Sapphire Terrace/ Foyer

SESSION 1 9:00 A.M. – 10:15 A.M.

Sapphire DH

Title: "Modernization & Mobility: How Transportation is Transforming in the Cloud"

Moderator: Alan Clelland, ITS/CV Leader, DKS Associates

Session Description:

Transportation agencies and other public authorities have relied on, and become accustomed to, a relatively static environment governing security, procurement, grants, and technology. That ground has eroded quickly, and now public agencies have to catch up to commercial and private enterprise to meet customer needs. This session explores how cloud computing has become a means for agencies to have an on-demand delivery of IT resources via the internet and explores how transportation executive leadership have forged a path towards cloud-based services.

Speakers:

- Kome Ajise, Executive Director, Southern California Association of Governments
- Randy Iwasaki, Leader, State and Local Transportation, Amazon Web Services
- Brian Burkhard, Vice President and Global Technology Lead for Advanced Mobility Systems, Jacobs

EXHIBIT HALL OPENS/BREAK 10:15 A.M. – 10:45 A.M.

Sapphire Ballroom

SESSION 210:45 A.M. – 12:15 P.M.

Sapphire DH

Title: "Goods Moving! Technology Accelerating!"

Moderator: Mark Jensen, Principal, Cambridge Systematics

Session Description:

Learn about how advanced information systems, sensors and data analytics are transforming freight mobility. Topics will cover new truck parking technologies, freight predictive analytics, new ways of optimizing freight exchanges at ports, truck V2V platooning, and developing infrastructure to support future advancements in truck automation.

Speakers:

- "DrayFLEX Optimizing Freight Moves in Los Angeles"
 Ed Alegre, Senior Director, LA Metro
- "Predicting Truck Parking Occupancy"
 Hamidreza Tavafoghi, Postdoctoral Fellow, University of California, Berkeley
- "California's Truck Parking ITS and Truck Platooning V2V Programs"
 Matt Hanson, Freight Research Project Manager, Caltrans Division of
 Research, Innovation and System Information
- "Development of a Statewide Freight Network Technologies Plan"
 Casey Wells, Freight Planner, Texas Department of Transportation Freight Planning Branch
- "Introducing Electromobility Solutions into Real-World Trucking"
 Aravind Kailas, PhD, Advanced Technology Policy Director, Volvo Group North America

SESSION 3 10:45 A.M. – 12:15 P.M.

Sapphire LP

Title: "Spotlight on Transit Technology and Data Innovation"

Moderator: Barry Matlack, VP Sales & Customer Success, one.network

Session Description:

Transit agencies and operators are continuously exploring new ways to offer a seamless journey as a strong alternative to private modes of transport. This means improving regional data so that new mobility sources have a common language to work from. New data analysis tools can identify underserved transit markets, and applying artificial intelligence can better predict arrival times. This session provides several case studies to show how the transit community is applying new data sources and tools to a give a better experience for the traveler.

Speakers:

- "One Consolidated GTFS Feed for the Region Challenges & Benefits"
 Nisar Ahmed, Principal Program Coordinator, Metropolitan Transportation
 Commission
- "Using Origin-Destination Commute Data to Identify Underserved Transit Markets"

Josh Pilachowski, Transportation Engineer, DKS Associates

- "Using Multimodal Big Data to Identify, Design and Monitor Safe Streets"
 Teresa Tapia, Director of Customer Success, StreetLight Data
- "The Internet of Traffic Optimizing Public Transport through Artificial Intelligence"

Alexander Wehmeyer, Business Development Manager, HaCon

LUNCHEON KEYNOTE SPEAKER 12:15 P.M. – 1:45 P.M.

Indigo ABEF

Welcome Address: Steven Gota, ITS California Board Chair, LA Metro

Moderator: James Dreisbach-Towle, Director Business Information and Technology Services, SANDAG

Donation
Event
Kickoff:

Tim Ney, Executive Director, Armed Services YMCA San Diego

Speaker: Hasan Ikhrata, CEO, SANDAG

Description:



Considered one of the preeminent transportation planning experts in the nation, Hasan Ikhrata is the Executive Director of the San Diego Association of Governments (SANDAG). SANDAG is the leading research, planning, and transportation agency for the San Diego region. Mr. Ikhrata has more than 30 years of experience in the arena of Transportation Planning in the Southern California Region, in both the private and public sector.

CONTINUED - NEXT PAGE



CONTINUED - FROM PREVIOUS PAGE

As Executive Director of SANDAG, Mr. Ikhrata directs day-to-day operations of the agency and implements policies set by its governing board. In addition, he is the Chief Executive Officer of the SANDAG Service Bureau, the nonprofit public benefit corporation chartered by SANDAG.

Mr. Ikhrata holds a Bachelor's and a Master's Degree in Civil and Industrial Engineering from Zaporozhye University in the former Soviet Union, a Master's Degree in Civil Engineering from UCLA, and a PhD Candidacy in Urban Planning and transportation from the University of Southern California in Los Angeles. Mr. Ikhrata is an adjunct professor in the business school at California State University, Northridge.

Prior to joining SANDAG in 2018, Mr. Ikhrata worked for Southern California Association of Governments (SCAG), Los Angeles County Metropolitan Transportation Authority (MTA) and South Coast Air Quality Management District (SCAQMD).

SESSION 4 1:45 P.M. - 3:15 P.M.

Sapphire DH

Title: "Tackling Transporation Equity Post-COVID"

Darya Shtykalo, Civil Analyst, Kimley-Horn and Associates, Inc. **Moderators:** Jannette Choi, Product Manager, Smarking, Inc.

Session Description:

Transportation equity has been an issue pre-COVID but has become more prevalent during the pandemic. While the industry is moving towards more technological solutions in transportation, how can we promote these changes while keeping equity at the forefront? In this session, public and private sector leaders will come together to discuss the intersection between equity, public safety, and policy in transportation technology in the post-COVID world.

Speakers:

• "The Realities of Anchoring Equity in Policy and Program Delivery in Transportation Technology'

Judis Santos, Program Manager, Metropolitan Transportation Commission, Association of Bay Area Governments

- "Public Streets for the Public Good"
 - Warren Logan, Policy Director of Mobility and Inter Agency Relations, City of Oakland
- "Addressing Equity Through an Infrastructure Project: Can it be Done?" Chadi Chazbek, Regional Vice President, Kimley-Horn and Associates. Inc.
- "Protecting Equity as Social Distancing Motivates Contactless Payment Adoption"

Edward Donovan, Solution Architect, Bytemark



Sapphire LP

"The Wheels on the Bus Go... Faster! Speeding Up Your Title: **Bus Through Traffic Signals**"

Moderator: Josh Peterman, Principal/National ITS Lead, Fehr & Peers

Session Description:

This session will explore technology advancements applied to transit to make service faster, more reliable, and less reliant on aging infrastructure. We will hear a diverse array of input from the public and private sectors, with ample time for A&O

Speakers:

- "Fast-tracking Deployment of Transit Priority" **Dustin Harber**, CTO, LYT
- "Advances in Centralized Preemption and TSP" Marija Ostojic, Product Specialist, Cubic
- "Implementing Next-Gen TSP: Lessons and Perspectives from the Leading

Elliot Hubbard, Regional Manager, Smart Cities and CV, DKS Associates; AJ O'Connor, Director of ITS, TriMet

 "TSP Requirements for a CV Future" Jon Ringler, VP, Systems Integration, Econolite

VENDOR TECHNOLOGY **SHOWCASE**

3:30 P.M. - 5:00 P.M.

Indigo ABEF

Steven Gota, LA Metro; Eva Pan Moon, LA Metro and the ITS **Moderator: CA Young Professionals Group**

Description:

ITS California will once again host the very popular Vendor Technology Showcase! Over 60 exhibitors and sponsors have been invited to present their latest products and services to conference attendees in a noncompetitive, low-pressure, funfilled, and fast-paced environment. For the 2021 Annual Meeting, the Vendor Technology Showcase will involve more raffle and prize giveaways, shorter presentations, and a few special surprises. Since this unique forum to distribute information to conference attendees will occur directly before our Monday Evening Exhibitor/Sponsor Reception, attendees will have the opportunity to engage with our exhibitors or sponsors immediately after the Showcase to follow-up on items of interest presented during the event. Come join us to learn about the latest and greatest in transportation technology and services, enjoy refreshments with colleagues, and share a few laughs as we proudly present the 8th Vendor Technology Showcase!

THANK YOU TO OUR EXHIBITORS AND SPONSORS RECEPTION 5:00 P.M. - 8:00 P.M.

Sapphire Ballroom



Fresh images from the road

Use high quality dash cam images for the road to see fresh imagery of your city and roads and get the actionable, Al-driven insight you need.

Raw Imagery and More



Using Nexar you can see recent, high quality images of relevant points of interest, or use Al-based insights on top of the images. Detections can be anything from free curb space to lane markings and more.

Virtual Camera, Anywhere



To get a large amount of imagery from a certain area, you can use Virtual Camera. Simply indicate its boundaries and instantly monitor crowded areas, key infrastructure, points of interest and more.

Road Work Zones



Using AI, Nexar automatically detects barricades, signs and other elements in work zones. This helps map work zones, optimize for safety and the free flow of traffic, detect unauthorized lane closures and more.

Road Inventory



Nexar automatically detects traffic signs using Artificial Intelligence in our dash cam network. You can also review and get alerted of changes in the state of your assets so you can rapidly fix any missing signs and improve the safety of your roads.





QUALCOMM SMART CITIES TOUR 8:30 A.M. – 11:30 A.M.

Meet at Registration Desk

Description:

Join us for a tour of the Qualcomm Smart Cities Command Center to see how C-V2X technologies and other smart city innovations are making transportation operations smarter. To prepare for this tour, C-V2X was installed on Qualcomm shuttles and multiple roadside units around campus. The tour will be at the Command Center, where visitors can view all shuttles currently in route, as well as their precise location and anticipated time of arrival at each stop. Attendees will see and learn how this use case and other safety and mobility applications can be used and monitored.

In addition, visitors will be able to see how to manage fleets of buses, emergency vehicles, maintenance vehicles and more with use cases based on parking, building energy management, waste management, security and more.



SESSION 6 9:00 A.M. - 10:30 A.M.

Sapphire DH

"California Dreamin" Title:

Daniel A. Lukasik, Vice President, ITS Sector, Parsons Moderator:

Session Description:

California has been the leader in the deployment of smart mobility and intelligent transportation system projects for decades. Whether it is a smart corridor, connected/autonomous vehicle, new-age communications, smart cities or other advanced technology concepts, look no further than California to find projects that are leading the way. This exciting session with focus on some of the more advanced recent ITS technology projects in the state. It will leave you dreamin' for more.

Speakers:

- "CCTA Innovate 680 Program" Virginia Lingham, Senior Lead Consultant, ITS/CAV, WSP
- "Port of Oakland Freight Intelligent Transportation System (FITS)" Derek Pines, Vice President - Western Region, Parsons
- "Advancing Public-Private Partnerships through the Implementation of SANDAG's 2020 ATCMTD project"

Alex Estrella, Technology Planning Manager, SANDAG

"Developing a Regional Communications Network: The Backbone of

Darya Shtykalo, Intelligent Transportation Systems Analyst, Kimley-Horn

BREAK/EXHIBIT HALL EXCLUSIVE ACCESS (REFRESHMENTS) 10:30 A.M. - 12:00 P.M.

Sapphire Ballroom

LUNCHEON KEYNOTE SPEAKER 12:00 P.M. - 1:30 P.M.

Indigo ABEF

Moderator: Steven Gota, ITS California Board Chair, LA Metro

Speaker: Shailen Bhatt, President and CEO, ITS America

Description:



Shailen P. Bhatt is President and CEO of the Intelligent Transportation Society of America (ITS America), where he promotes policies that advance the development and deployment of intelligent transportation technologies throughout the United States. Previously, Bhatt served as Executive Director for the Colorado Department of Transportation (CDOT), where he led the department in planning for and addressing Colorado's transportation needs.

Bhatt oversaw 3,300 employees statewide and an annual budget of approximately \$1.4 billion, guiding an organization committed to becoming the best DOT in the country. During his tenure, CDOT launched the Road X program which is focused on deploying innovative technology solutions such as connected vehicles and teaming with the private sector to shape the future of transportation.

LUNCHEON KEYNOTE SPEAKER 12:00 P.M. - 1:30 P.M.

Indigo ABEF

Moderator: Steven Gota, ITS California Board Chair, LA Metro

Speaker: Matthew Tucker, CEO, North County Transit District

Description:



Mr. Tucker has served as Executive Director/ CEO of NCTD since 2008 where he provides the strategic direction and oversight necessary to deliver transit service within the agency's 1,020 square mile service area. NCTD's family of transit services includes COASTER commuter rail, SPRINTER hybrid rail, BREEZE bus system, FLEX specialized transportation, and LIFT ADA paratransit services. NCTD has operational responsibility and control over the

San Diego Rail Subdivision, from the Orange County line to Downtown San Diego and hosts Amtrak, Metrolink, BNSF, and PAC Sun Railroad operators. NCTD has an operating budget of approximately \$113 million for fiscal year (FY) 2020, and ridership across all modes is projected at approximately 10 million passengers for FY 2020.

Mr. Tucker brings with him the insight of a long career in the public transportation sector. Prior to NCTD, he served as Director of the Virginia Department of Rail and Public Transportation, COO of Santa Clara Valley Transportation Authority, and AGM of the Greater Richmond (VA) Transit Company.



SESSION 7 1:30 P.M. - 3:00 P.M.

Sapphire DH

"Reaching Carbon Neutral Transportation Sector" Title:

Aravind Kailas, PhD, Advanced Technology Policy Director, Moderator: Volvo Group North America

Session Description:

Transport is a key focus and driver for climate protection measures. Realizing Carbonneutral road transport is possible, but will represent a seismic shift, requiring a holistic approach with increasing efforts from all stakeholders. Join us for a fireside chat with experts on lessons learned from recent and ongoing deployments.

Speakers:

- Tyson Eckerle, Deputy Director, Zero Emission Vehicle Market Development, California Governor's Office of Business and Economic Development
- Seungbum Ha, PhD, Program Supervisor, California South Coast Air Quality Management District
- Mike Usen, Electromobility and Resiliency Lead, DKS Associates
- Gary Miskell, Chief Information and Technology Officer, Santa Clara Valley **Transportation Authority**



Sapphire LP

Title: "Technology Makes Our Roads Safer! - Applying ITS for Safety"

Moderator: Katherine Mertz, Director of Sales, Sensys Networks, Inc.

Session Description:

Safety is always the number one priority for our transportation agencies. Despite decreased overall traffic volumes over the last 12+ months, overall fatalities on our US roadways have increased. As active transportation and complete streets concepts continue to be areas of focus for agencies, applying technology to increase bicycle and pedestrian safety is critical for ITS programs. This session will concentrate on emerging technologies, concepts and policies to address this ever-important issue. We can achieve Vision Zero goals if we truly focus.

Speakers:

- "GiveMeGreen! System and Application Architecture and Operations" Sophia Haoui, Software Engineer, Sensys Networks
- "Emerging Applications of Data Science for Local Vision Zero Efforts" Mark Masongsong, CEO & Co-Founder, UrbanLogiq
- "Development of California-specific Safety Performance Functions" Offer Grembek, Co-Director, Safe Transportation Research and Education Center, University of California, Berkeley
- "Build Back Better: Using Cloud Applications for Communicating Road Changes for Safety & Sustainability"

Eliza Shaw, U.S. Partnerships & Business Development, one.network

BREAK (REFRESHMENTS) 3:00 P.M. - 3:15 P.M.

Sapphire Ballroom

EXHIBIT HALL CLOSES 3:30 P.M.

Sapphire Ballroom

SESSION 9 3:15 P.M. – 4:45 P.M.

Sapphire DH

"Moving from 'Smart Cars and Dumb Roads' to 'Smart Title: Cars and Smart Infrastructure"

Carlos Ortiz, PE, TE, PTOE, Chief Operating Officer and **Moderator:** Principal, ADVANTEC Consulting Engineers, Inc.

Session Description:

Our speakers will discuss policies, standards, technologies, applications, and innovations to prepare agencies to plan and build smart transportation infrastructure that supports safety, enhanced mobility, and the integration of connected/automated vehicles.

Speakers:

. "How the Convergence of ACES and Technology are Shaping the Future of Mobility"

Barry Einsig, Principal, CAVita

- "Velodyne LiDAR's Perspective of Smart Communities, Tracking, Recognition and Varying Uses for Smart Infrastructure" Jon Barad, Vice President of Business Development, Velodyne Lidar
- "Connected Intersection Implementation Guide" Ralph Boaz, President, Pillar Consulting, Inc.
- "Crawl Before Walking: Economics of Using Cellular Enabled Connected Vehicles as Virtual Sensors"

Noam Mital, CEO, Waycare

"Advancing Transportation System Management (TSMO) in the San Diego

Alex Estrella, Technology Program Manager, SANDAG



Sapphire LP

Title: "Not-So-Big Data"

Moderator: Alyssa Phaneuf, P.E., Vice President, Kimley-Horn

Session Description:

With the anticipated increase in the volume of information that will come from connected and autonomous vehicles, internet of things, 3rd party data feeds, crowdsourcing and other data sources, the volume of information is ever expanding. This session will explore how this increase of information can be used to improve the way we monitor, measure and manage our transportation systems. This session will provide insight in how you use Big Data to save money, improve operations, and save the world!

Speakers:

· "The Advent of Virtual Infrastructure: How Data is Changing how we **Evaluate Transportation Systems"**

Gary Carlin, Director of Business Development, INRIX, Inc.

"Pricing for Performance with Big Data" Hema Nagarajan, Senior Engineer, WSP

- "Big Data on a Budget: A Joint Subscription to StreetLight Data" Mikaela Hiatt, Transportation Programs Specialist, City/County Association of Governments of San Mateo County (C/CAG)
- "Big Data and Data-Driven Planning" Ray Major, Chief Data and Analytics Officer, SANDAG



MEET YOUR BOARD OF DIRECTORS RECEPTION 6:00 P.M. – 10:00 P.M.

Petco Park

Description:

The Tuesday Night "Meet Your Board of Directors Reception" will be at the luxurious Petco Park, within just a short walking distance to the hotel. The San Diego Padres will be taking on the Miami Marlins, first pitch is at 7:10 p.m. The reception includes admission to the ball game, food, and drinks (soft drinks and beer). The location is the rooftop of the historic Metal Supply Co. Building in left field.

NOTE: LIMITED SEATS AVAILABLE — PRE-REGISTRATION REQUIRED!



System Metrics Group

System Metrics Group, Inc. specializes in managing large and complex transportation strategy projects, including intelligent transportation systems operations projects.

- Assisted in the US 50 Integrated Corridor Management Implementation Plan
- •Assisting Caltrans with the I-210 Connected Corridors pilot project to plan, develop, and implement the Integrated Corridor Management deployment
- •Assisting Alameda County Transportation Commission conduct a comprehensive before and after assessment of the I-80 ICM program
- Assisted Caltrans District 10 to develop its Regional Concept of Transportation Operations (RCTO) and Intelligent Transportation System (ITS)/Operations Improvement Plan
- Assisted Caltrans Division of Traffic Operations to complete a strategic plan to develop and operate managed lanes (ML) in California
- Assisted Metro to develop countywide arterial baseline conditions using the Arterial Performance Measurement (APM) tool developed by SMG



California SBE LA Metro SBE SysMetGroup.com 415.395.7000



CLICK 650 & 656

Our cabinet interface devices utilize SmartSensor's accurate and reliable data to provide the powerful insights you need for intelligent intersection management.

■ WAVETRONIX

San Diego Forward:

The 2021 Regional Plan is a bold new vision for a transportation system that improves quality of life, addresses social equity, and preserves the environment

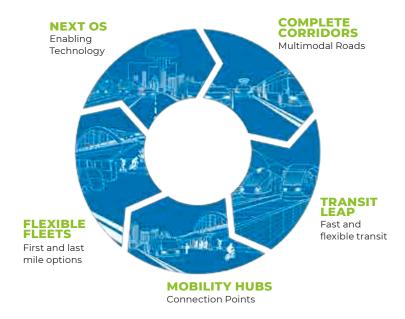


The San Diego Association of Governments (SANDAG) is leading a community effort to develop San Diego Forward: The 2021 Regional Plan, which reimagines personal mobility and how people and goods - wherever they are - can get around guickly, safely, and efficiently. This blueprint combines the big-picture vision for how the San Diego region will grow through 2050 and an implementation plan for a 21st century transportation system that is fast, fair, and clean. SANDAG updates its Regional Plan every four years, and the 2021 Regional Plan is the latest update with adoption anticipated in late 2021.

The 2021 Regional Plan reimagines the region's transportation system using a planning process informed by data and deep knowledge of local communities. For the first time, the 2021 Regional Plan incorporates five transformational strategies known as the 5 Big Moves.

These interdependent strategies are designed to address the region's greatest transportation and mobility challenges: safety and traffic congestion, social inequities, and state and federal requirements to reduce greenhouse gas emissions and air pollution. The 2021 Regional Plan details how policies and investments in the transportation system, including infrastructure investments, technological advances, programs, and services, can work together to enhance the ability to meet the biggest challenges and create a better region for future generations.

INTEGRATED TRANSPORTATION



Our Legacy: Mid-Coast Trolley Extension

Delivering on time and on budget in late 2021, the Mid-Coast extension of the UC San Diego Blue Line Trolley will have a transformative impact on regional transit connectivity. The project will connect the University Community to Downtown San Diego and the U.S.-Mexico Border, extending an additional 11 miles and significantly improving access to major medical, educational, and employment centers. The \$2.1 billion Trolley extension is the largest transportation infrastructure project in the San Diego region's history and a successful example of SANDAG delivering on the current regional plan.











BREAKFAST/REGISTRATION 8:00 A.M. – 9:00 A.M.

Sapphire Foyer

SESSION 11 9:00 A.M. – 10:30 A.M.

Sapphire CG

Title: "The Road to C-V2X"

Moderator: Jim Misener, Senior Director, Product Management, Qualcomm Technologies, Inc.

Session Description:

This session explores the topics of C-V2X deployment as described by California trailblazers in our collective road to C-V2X deployment. The presentations will span a pilot installation, roadside unit and vulnerable road user concepts and a national vision and direction on equipped intersections for red-light running avoidance. The presentations and discussions should give us a map of the V2X world just ahead.

Speakers:

- "C-V2X Pilot Deployment in California"
 - Sam Amen, Traffic System Performance Branch Chief, Caltrans (District 11, Division Chief of Engineering/CAV manager)
- "RSU Deployment Ecosystem"
 Mahsa Nakhjiri, Director, Product Management, Harman International, Inc.
- "C-V2X Application Around Vulnerable Road Users"
 Praveen Singh, Director, Business Development, Qualcomm Technologies, Inc.
- "Connected Intersections An Infrastructure Owner Operator's Perspective"
 John Thai, Principal Traffic Engineer, City of Anaheim

BREAK (REFRESHMENTS) 10:30 A.M. – 10:45 A.M.

Sapphire Foyer



Sapphire DH

Title: "MaaS – Mobility Solution for a Post-COVID World?"

Moderator: Carol Kuester, Director, Electronic Payment Systems,
Metropolitan Transportation Commission

Session Description:

MaaS has been touted as a possible solution giving jurisdictions the ability to embrace private and public mobility service providers to offer augmented public/private trips, especially for first/last mile services. But the deployment of MaaS raises several issues that need resolving: MaaS vs. Mobility on Demand, who should set up the MaaS system, who governs the ecosystem and makes it all inclusive, is it a platform or an app, how can providers ensure equity for all, how can providers promote and move people from private vehicles to use of MaaS, and importantly, in an environment where sharing will be key, do our travelers feel safe, and ready to use shared mobility options and get into close proximity with other travelers? These and other pertinent questions will be answered by our panelists.

Speakers:

- "Delivering MaaS as a Key Component to Solving Congestion"
 Andy Taylor, Senior Director of Global Strategy, Cubic Transportation Systems
- "Deploying Mobility on Demand for Transit Agencies and MPOs" Satinder Bhalla, President and Co-Founder, TransSight
- "MTC: Seamless Mobility as a Strategy in Post-COVID Transit"
 Theresa Romell, Director, Fund Policy and Programs, Metropolitan Transportation Commission
- "How TAPForce is Unlocking Mobility in the LA Region"
 Manish Chaudhari, Director of Special Projects, LA Metro

U.S.S. MIDWAY TOUR 9:30 A.M. – 12:00 P.M.

Meet at Registration Desk

Description:

With more than 30 restored aircraft, and nearly 10 acres of exhibits and displays, the Midway brings you the most complete cross-section of carrier aviation in the world. From high up on the bridge down to the main engine room, taking you on a unique warship journey that engages the sights, sounds, and aromas of this symbol of American freedom.

Inspect restored WWII era aircraft and climb aboard real cockpits! Experience the breathtaking Battle of Midway Theater and interactive displays.

Over 20 Aircraft populate the massive Midway Flight Deck. Take a tour of the Bridge and Captain's and Admirals Cabins. Explore the spaces where the crew lived, worked and played aboard ship. Walk through mess halls, galleys, chapel, laundry services and much more.







Sapphire CG

"A Vision for Vehicles of the Future" Title:

Antonino D. Genoese, P.E., Senior ITS/Traffic Engineer, **Moderator:**

Session Description:

The onset of technological innovations will make the connected vehicle and autonomous driving a reality in the foreseeable future. This technology will make interesting new mobility services possible, while potentially providing efficiency benefits and improving safety. As governments work to provide the required infrastructure and regulatory guidelines, companies from a wide variety of industry sectors – automotive, IT, insurance, logistics, and more – are positioning themselves in this new field. All of these industries hope to see benefits, but to succeed they will need to know what the connected and autonomous vehicles offer to tap into this potential. Join us in this session to find out more!

- "Connected Vehicle Program to Analyze Signal and Corridor Optimization" Jon Ringler, VP, Systems Integration, Econolite
- "Deployment Lessons Learned" Steve Sprouffske, National Practice Lead, Connected Vehicle Services, Kapsch TrafficCom
- "'My Car Almost Killed Me' Can We Trust Autonomous Vehicles?" Leo Lee, CEO, ADVANTEC Consulting Engineers, Inc.
- "Realizing the Potential of the Cloud and Connected Vehicles" Alan Clelland, ITS/CV Leader, DKS Associates
- "Overview of Connected Vehicle Projects Underway in California" Jessie Glazer, ITS Engineer, FHWA - California



Sapphire DH

"Cloud and AI - Helping Agencies Solve Traditional Title: Transportation Problems using Non-Traditional Methods"

Benjamin McKeever, CAV Program Manager, University of **Moderator:** California, Berkeley

Session Description:

Over the past decade, there have been great scientific advances in Artificial Intelligence (AI), machine learning, cloud computing and other innovative technologies. These advances have typically been applied to new concepts and applications such as robotics, driverless cars, package delivery by drones and social media. In this session, we will explore how these state-of-the-art technologies are also being applied to more "old school" transportation problems such as traffic and transit management, safety analysis and intersection design.

 "Machine-Learning Based Anomaly Detection in Active Transportation Management"

Ning Yang, Project Manager, Parsons

• "Applying Artificial Intelligence to Predict Crash Risk and Achieve Goals of Vision Zero"

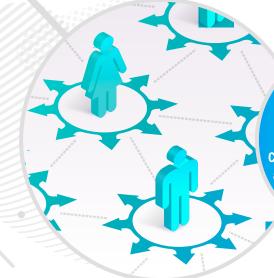
Juan Moreno, Software Engineer, Kapsch TrafficCom North America

- "How Cloud-Based Technology Will Bring Riders Back" Siena Guerrazzi, Account Executive, Swiftly
- "Computer Vision and Artificial Intelligence Team Up to Guide Intersection Safety Improvements"

Kendra Rowley P.E., Senior Engineer, Fehr & Peers

LUNCHES TO BE PROVIDED FOR **ALL ATTENDEES** 12:00 P.M. - 1:00 P.M.

Sapphire Fover



During our meeting, we will be observing all current State of California guidance as it relates to COVID-19. We want to provide an educational, fun and safe meeting for everyone.

Are loops destroying your roads? Or are roads destroying your loops?

Yes.





FlexMag is a better way to detect

Loops are 7x more likely to fail within 5 years

Wireless FlexMag sensors don't require sawcutting huge sections of your pavement or trenching for leads. This means your roads, and your traffic detection, last longer.

With no wires to to get severed by utility work or wear-and-tear from vehicles and weather, it's no surprise that FlexMag sensors have a longer average life than loops.

Simply put, you get the same proven **accuracy** with greater **reliability**.



For more reliable traffic detection, visit sensysnetworks.com/betterthanloops





Cambridge Systematics can help you prepare for the challenges of autonomous and connected vehicles.

> to A/CV, we provide Data Analytics support to meet your needs in:

- in addition Planning for Operations and ITS

 - Modeling and Simulation Analysis
 - Systems Engineering
 - ▶ Performance Management
 - **►ITS Evaluations** and Benefit-Cost





Cambridge Systematics Remembers Chris Hedden 1966-2021

DKS

SHAPING A SMARTER TRANSPORTATION EXPERIENCE













TRANSPORTATION

ENGINEERING

SMART MOBILITY









ACTIVE TRANSPORTATION

TRANSPORTATION PLANNING

TRANSPORTATION TECHNOLOGY

FREIGHT

AN EMPLOYEE-OWNED COMPANY

DKSASSOCIATES.COM





FDR

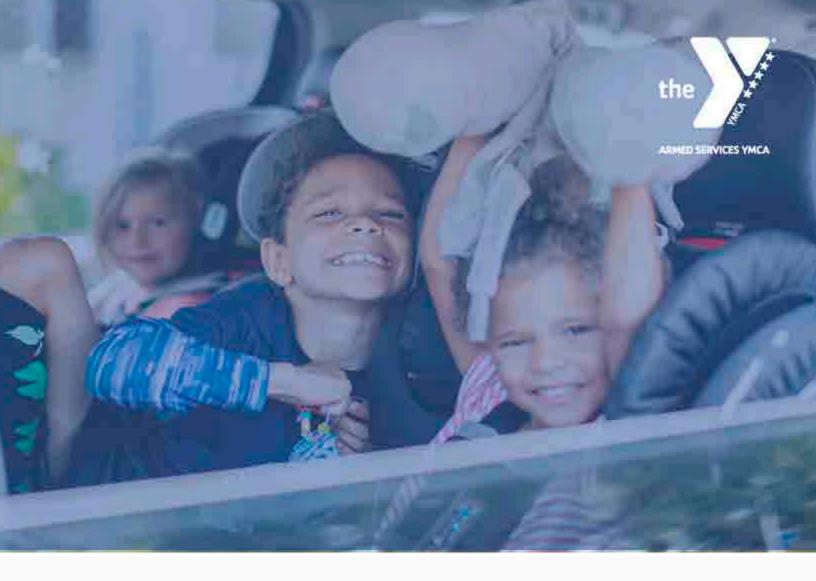
Ideas transform communities

From smart infrastructure to smart cities, we're helping our clients push open the doors to what's possible, every day.

Proud Gold sponsor of 2021 ITS California Annual Meeting

hdrinc.com





STRENGTHEN OUR MILITARY FAMILY

The Armed Services YMCA San Diego enhances the lives of military members and their families in spirit, mind and body through programs and services relevant to the unique challenges of military life. Make a difference today by supporting these families who serve us so selflessly every day.

- For volunteer opportunities, visit: www.asymca.org/volunteer-san-diego
- To make a donation towards this event, visit: https://gofund.me/39384835

DONATION EVENT

MONDAY 12:00 P.M. – 8:00 P.M. | **TUESDAY** 8:00 A.M. – 3:30 P.M.

Sapphire West Foyer

Event Oversight: Phillip Sammuli, CFRE, Vice President of Development, Armed Services YMCA San Diego

Join us in the Sapphire West Foyer for a donation event to support the Armed Services YMCA San Diego. We will be collecting cash and on-line donations for the AS YMCA San Diego and stuffing 100 backpacks with back-to-school supplies for the children!

Recommended minimum donation is \$30, but we are hoping for more.

Learn More about Armed Services YMCA San Diego at **www.asysd.org**



ADVANTEC is proud to be the ITS CA 2021 Annual Conference and Exhibition Wi-Fi Sponsor!

Wi-Fi Address: ADVANTEC_ITSCA2021

Wi-Fi Password: ADVANTEC2021

















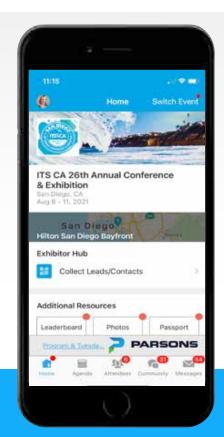




THANK YOU TO OUR PARTNERS!







What is the <u>easiest</u> way to navigate your 2021 ITS CA Conference?

Download Whova (your conference app) from the App Store or Google Play.

Please sign up for the app with your social media account or your email you registered for the conference with.



- EXPLORE professional profiles for speakers and colleagues
- Receive conference NOTIFICATIONS
- **NETWORK** with colleagues
- View the most current AGENDA

Your Invitation Code: ITSCA2021AM



	1/3/::	
	NDIE	
1/6		(O)
× 26 ¹¹¹	ITS\CA	8
THE STATE OF THE S	AUGUST 9-11 2021	"IBITION
THE WAY	CONFERENCE	\$ // //
		-

