



2016 ITS Carolinas Annual Meeting: Session Synopsis

Sunday, September 11, 2016

4-5:30 PM	ITS Carolinas Board Meeting King Room, Hyatt Place Charlotte Downtown, 459 East 3rd Street, Charlotte, NC 28202
5:30-6:30 PM	ITS Carolinas Strategic Vision Meeting King Room, Hyatt Place Charlotte Downtown, 459 East 3rd Street, Charlotte, NC 28202
6:30-? PM	Informal Gathering/Social Buffalo Wild Wings, 400 E Martin Luther King Jr. Blvd. Ste. B NASCAR Hall of Fame Charlotte, NC 28202-2343

Monday, September 12, 2016

Charlotte Convention Center, Rooms 218 & 219

7:30-8:30 AM	Registration & Networking Breakfast	
8:30-9:30 AM	Opening Session & Map-21 Performance Measures Meredith McDiarmid, <i>State Systems Operations Engineer, NCDOT</i> Welcome: Michael L. Pack, <i>Director, Center for Advanced Transportation Technology Laboratory, University of Maryland</i> Chapter update and Strategic Planning Efforts: Kevin Lacy, <i>Chapter President, State Traffic Engineer, NCDOT</i> Map-21 Requirements: Rich Taylor, <i>Federal Highway Administration</i>	
9:30-10 AM	Break —Sponsored by TrafficWare, Cambridge Systematics, and DRMP, Inc.	
10-11:30 AM	Tesla Automated Technology Demos	
11:30 AM – 1 PM		Session 1—Proactive Traffic Management: Work Zones and TMCs Tony Tagliaferri, <i>Metrolina Regional ITS Engineer, NCDOT</i> Work Zone Technologies: Steve Kite, <i>Eastern Region Work Zone Traffic Control Engineer, NCDOT</i> State-of-the-practice in NC (and SC) regarding the implementation of the latest work zone traffic management technologies, including concepts such as dynamic speed limits and zipper merges. NCDOT Fortify Traffic Management: Battle Whitley, <i>Division 5 Maintenance Engineer, NCDOT</i> NCDOT’s Fortify work zone project in Raleigh, the use of proactive traffic management measures in the work zone area, and the role of the Statewide TOC in the implementation and oversight of these measures. Integrated Corridor Management: Tony Tagliaferri, <i>Metrolina Regional ITS Engineer</i> Integrated Corridor Management strategies being implemented along US 29/74 in Gaston County, NC and Columbia, SC to proactively mitigate I-85 incident traffic.
1-2:30 PM		Lunch in Exhibitor Hall —Sponsored by J.O. Herbert, 360 Network Solutions, Q-Free, American Signal Company, IBI Group and Iteris, Inc.
	Session 2A—(Room 218): Innovations in Event Management Anita Vandervalk, <i>Principal, Cambridge Systematics</i> This session will cover use of private sector data for innovative event management. The session is targeted for city and state operations personnel and anyone interested in the newest methods used to manage traffic around planned and unplanned events. Communicating Road Closures through Mapping Services: Lori Campbell, <i>Assistant District Traffic Engineer, SCDOT</i> Transforming Traveler Information into 2-Way Event Communications: John Farrell, <i>Product Management Director, Information Logistics, Inc.</i> New Innovations in Delivering Incident and Event Data: Terri Johnson, <i>HERE Traffic and Connected Driving, Manager</i>	

		<p>Using INRIX Probe Data to Manage your Events: Rick Schuman, VP for Public Sector Strategy and Partnering, INRIX</p> <p>Session 2B—(Room 219): Multi-Agency Video Sharing Cole Dagerhardt, <i>Engineer, Kimley-Horn and Associates, Inc.</i></p> <p>Traditionally, video management systems have been built for surveillance in closed networks, so it can be a difficult venture to share video between multiple agencies. Some of the challenges include video quality expectations, network security, and incompatible video management software systems. In North and South Carolina there is a need to develop a user-group to discuss video sharing needs and standardization between state DOTs, municipal DOTs, emergency management agencies, and other stakeholders. The goal of this two-part session is to jumpstart creation of a user-group through an exercise of information gathering that focuses on the software and network security components of video sharing.</p> <p>Part One: a panel of advanced traffic management system vendors that will be answering specific questions from the moderator and audience related to video sharing best practices.</p> <p>Part Two: add network specialists to the panel who will answer specific questions related to securing video sharing connections between partner agencies.</p>
2:30-3 PM		Break —Sponsored by Grice Consulting Group, STV, and Kapsch TrafficCom
3-4:30 PM	Tesla Automated Technology Demos	<p>Session 3A—(Room 218): Signal System Timing Carol Jones, <i>Traffic Signal & Systems Engineer, SCDOT</i></p> <p>Arterial Performance Measures, Data Sources and Application: Stan Young, <i>Research Scientist National Renewable Energy Laboratory</i></p> <p>An overview of arterial Performance Measures including data sources, use of probe data for arterial operations (including high res, probe, Bluetooth and any others) and application of the measures in operating arterials.</p> <p>SCDOT Adaptive Signal System Installation: Brian Holt, <i>District 6 Traffic Engineer</i> & Josh Johnson, <i>Assistant District 6 Traffic Engineer, SCDOT Charleston area</i></p> <p>Describe installation / funding methods for installing adaptive along US 17 A in Summerville and along SC 642 (Dorchester Road) in N. Charleston. The presenter will discuss lessons learned, observations and possible safety benefits. Future adaptive / responsive system installations will also be discussed.</p> <p>NCDOT Signal System Timing Philosophy: Jennifer Portanova, <i>State Systems Engineer, NCDOT</i></p> <p>An overview on how NCDOT is partnering with signal timing experts to provide a single document summarizing North Carolina's Signal Timing Philosophy.</p> <p>GDOT Regional Traffic Operations Program: Alan Davis, <i>Assistant State Traffic Engineer, GDOT</i></p> <p>An overview of GDOT's Regional Traffic Operations Program (RTOP) which is a multi-jurisdictional, cutting-edge signal timing program with the goal of improving traffic flow and reducing vehicle emissions through improved signal timing.</p>
		<p>Session 3B—(Room 219): Multi-Modal ITS John Karnowski, <i>Traffic Services Group Manager, CALYX</i></p> <p>Multi-modal ITS: Marygrace Parker, <i>Freight, Mobility, Safety & Security Coordinator, I-95 Corridor Coalition</i></p> <p>Freight, Mobility, Safety & Security Coordinator, I-95 Corridor Coalition; As an early embracer of ITS to improve the flow of traffic and commerce on its 1917 miles, the I-95 Corridor Coalition is at the forefront of freight movement and ITS applications. This presentation will discuss some of the industry trends in ITS related to multi-modal movement of people and goods.</p> <p>Automated Freight Platooning: Suzanne Murtha, <i>Project Director, Atkins</i></p> <p>This presentation will discuss deployment of automated freight platooning for improved goods movement through shipping ports and airports.</p> <p>Military Applications of ITS (Unclassified): Jeff Barghout, <i>CEO, Robocist</i></p> <p>ITS is shaping our world and helping our military remain strong and ready. This presentation will explore a number of ITS applications in use in our military.</p>
4:30-5:30 PM		Vendor Activity/Cornhole Tournament in Exhibitor Hall
6-9 PM		Reception/Cornhole Tournament in Exhibitor Hall —Sponsored by Kimley-Horn and Associates, Atkins and Utilicom Supply

Tuesday, September 13, 2016
NASCAR Hall of Fame (Except Breakfast)

7-8 AM	Networking Breakfast (In Exhibitor Hall in Convention Center)
8-9:15 AM	<p>Autonomous and Connected Vehicles, Part 1: Human Behavior Influences Amanda Good, <i>ITS Planner, Kimley-Horn and Associates, Inc.</i></p> <p>The focus of this two-part session is to provide an overview of the widely discussed rise of connected and automated vehicles. This combined session will highlight the breadth of influence and impacts this topic has on areas other than transportation—such as economics, business, community, academia, and public education.</p> <p>The first part focuses on the changes in driving behavior. How does this technology change our way of thinking about driving and safety? This part will highlight that this topic is broader than transportation alone—it also includes economics, business impacts, community involvement, academia, and public education.</p> <ul style="list-style-type: none"> • Dr. Michael Hunter, <i>Associate Professor, Transportation Systems Engineering, GA Tech</i> • Keith Hangland, <i>Manager, Government Accounts, HERE</i> • Chris Monk, <i>Chief of the Human Factors Division, NHTSA</i>
9:15-9:30 AM	Intermission
9:30-10:45 AM	<p>Autonomous and Connected Vehicles, Part 2: Connected Technology Readiness Panel Amanda Good, <i>ITS Planner, Kimley-Horn and Associates, Inc.</i></p> <p>The second part focuses on the deployment and preparation of connected and autonomous technology. Noting current progress of deployment and legislation changes, hurdles to cross, and identifying the priorities and ramifications of CV technology deployment.</p> <ul style="list-style-type: none"> • Matt Smith, <i>ITS Program Manager, Michigan DOT</i> • Kevin Lacy, <i>State Traffic Engineer, NCDOT</i>, & Hope Mozingo, <i>Deputy Commissioner of Motor Vehicles, NCDOT</i> • Cathy McGhee, <i>Associate Director for Safety, Operations and Traffic Engineering, Virginia DOT</i>
10:45-11:15 AM	Break —Sponsored by WSP Parsons Brinckerhoff, HERE and Protronix
11:15 AM – 12 PM	<p>Closing Session Meredith McDiarmid, <i>State Systems Operations Engineer, NCDOT</i></p> <p>Focus on gathering member input on the action items the chapter should take forward for the upcoming year based on the strategic plan that was presented in the Opening Session</p>

ITS Carolinas 2016 Speaker Bios

Jeff Barghout, *CEO, Robocist*

As CEO of Robocist, Jeff Barghout delivers strategic, market based solutions for the development, evaluation and adoption of mobility and robotic technologies. Government agencies, universities, and businesses engage us to help them understand, plan for, and integrate connected vehicles, autonomous vehicles, electric vehicles, robotic systems - and the supporting infrastructure – solving problems efficiently and cost-effectively. Over the past 20 years, Jeff has been a successful entrepreneur, an engineer at Chrysler, assessed technologies for NASA, and served as vice president of Transportation Initiatives at a cutting-edge research and consulting firm. Local to NC, he is currently supporting the NC DOT autonomous vehicle road mapping initiative; evaluating driverless shuttles to transport wounded warriors at Fort Bragg; and is on the advisory board of the Research Triangle CleanTech Cluster.

Lori Campbell, *Assistant District Traffic Engineer, SCDOT*

Cole Dagerhardt, *Engineer, Kimley-Horn and Associates, Inc.*

Alan Davis

Alan currently serves as the Assistant State Traffic Engineer for the Georgia Department of Transportation. Prior to joining GDOT, Alan worked as a traffic engineer for the South Carolina Department of Transportation and for a consultant in Columbia, South Carolina. Alan is a graduate of the University of South Carolina with a Bachelor of Science degree in Civil and Environmental Engineering. Alan is a licensed professional engineer in South Carolina and Georgia, and a registered Professional Traffic Operations Engineer. Alan also serves as a member of the Signals Technical Committee for the National Committee on Uniform Traffic Control Devices.

Amanda Good, *ITS Planner, Kimley-Horn and Associates, Inc.*

Amanda Good has 12 years of experience, including 8 years with Kimley-Horn, focusing on systems engineering, state/regional ITS planning, and operations support. She assists clients on defining their needs then identifying solutions to meet those needs. Amanda serves as a technical resource, facilitator, and support within several subject areas, including active traffic management, integrated corridor management, advanced transportation management system software, connect and autonomous vehicles, and Transportation Systems Management and Operations projects. As a result, she has provided a variety of deliverables, including conceptual and high-level design documents for identified corridors, concept of operations/systems engineering documentation, strategies for operational issues, and software requirement development.

John Farrell, *Product Management Director, Information Logistics, Inc.*

John Farrell, MPA, PMP, is the Product Management Director for Information Logistics, Inc. John has a Master's degree in public administration from Villanova University and a Master's from the Naval Postgraduate School. He is currently pursuing his Ph.D. at Temple University. Prior to joining Information Logistics, John served in the United States Marine Corps and in several local government positions. His years in the Marine Corps gave him a passion for community safety and security. His years as a deputy in Philadelphia's Managing Director's office gave him a first-hand understanding of security, transportation and communication. John currently develops and executes cross-agency and cross-departmental projects, and has recently overseen the several mobile technology projects. He identifies transportation technology needs and works with the development team to design, build and deploy these new technologies. John brings a wealth of organizational government project management experience, as well as a passion to use technology to facilitate emergency preparedness and communications with the impacted community.

Keith Hangland, *Manager, Government Accounts, HERE*

Brian Holt

Brian Holt PE, PTOE is the District Six (Charleston area) Traffic Engineer for the SCDOT. He is responsible for the Traffic Engineering Office, Signal Shop, Charleston Traffic Management Center and the Charleston State Highway Emergency Program (SHEP). He has a Bachelor of Science and Master's degree from the University of Tennessee – Knoxville and is a registered professional engineer and a certified professional traffic operations engineer.

Michael Hunter, *Associate Professor, Transportation Systems Engineering, GA Tech*

Dr. Hunter is an Associate Professor at the School of Civil and Environmental Engineering at Georgia Institute of Technology. His primary teaching and research interests are in transportation operations and design, specializing in adaptive signal control, traffic simulation, freeway geometric design, and arterial corridor operations. Dr. Hunter obtained his B.S. in Civil Engineering from Rensselaer Polytechnic University (1992), his M.S. in Civil Engineering from the University of Texas at Austin (1994), and his Ph.D. in Civil Engineering from the University of Texas at Austin (2003). After obtaining his M.S. he worked as a transportation engineer for several years at the Sear-Brown Group in Rochester, NY. He has conducted numerous traffic impact studies, signal timing projects, freeway operation evaluations, toll plaza analyses, etc.

Josh Johnson, Assistant District 6 Traffic Engineer, SCDOT Charleston Area

Josh Johnson PE, PTOE is the Assistant District Six (Charleston area) Traffic Engineer with SCDOT. Prior to joining SCDOT, Josh worked in the private sector as both a traffic and road design engineer. He is a graduate of Clemson University, and is a registered professional engineer and a certified professional traffic operations engineer.

Terri Johnson, Manager, HERE Traffic and Connected Driving,

Terri Johnson manages the government sector projects for the HERE Traffic and Connected Driving division of HERE. She has been with HERE, for over 15 years and has 30 years of experience in the transportation industry. She has successfully implemented traffic services across states, MPOs, and federal agencies. Terri received a Bachelor of Science in Civil and Environmental Engineering from the University of Wisconsin and is the mother of twin 17-year-old girls!

Carol Jones, Traffic Signal & Systems Engineer, SCDOT

Carol Jones earned her BS in Civil Engineering from McNeese State University in Louisiana in 1986 and obtained her Professional Engineer's license in 1991. Upon graduation, she worked with consultants from 1986 to 1991 and then served as the City Traffic Engineer for the City of Columbia from 1991 to 1994. Carol began her career at SCDOT in 1994 in the Headquarters Traffic Engineering Division and is currently the State Traffic Signal & Systems Engineer.

Carol works closely with the District offices and local governments concerning traffic signal issues. Her group designs signals for roadway projects and obtains funding for signal improvements and retiming projects. She is also responsible for managing signal equipment contracts. Her group is responsible for maintaining the traffic signal specifications, standard drawings and the SCDOT Traffic Signal Design Guidelines.

Carol's vision for signals in South Carolina is to build a viable program that will install, maintain and operate the signal infrastructure necessary to accommodate the rapidly advancing automotive technology.

John Karnowski, Traffic Services Group Manager, CALYX

John Karnowski, P.E., PTOE, AICP is the head of CALYX Engineers + Consultants' traffic services group. He has spent 28 years in transportation in both the public and private sector. John has worked in virtually all areas of traffic and transportation engineering including traffic engineering, signal design and timing, ITS, incident management, traffic forecasting and modeling, transportation planning, highway corridor studies, intersection design, freight studies, traffic control plans, traffic impact assessments. He is a graduate of the Georgia Institute of Transportation.

Steve Kite, Eastern Region Work Zone Traffic Control Engineer, NCDOT**Kevin Lacy, Chapter President, State Traffic Engineer, NCDOT**

Kevin Lacy is the State Traffic Engineer for the North Carolina Department of Transportation. He directs the Department's Transportation Mobility and Safety Division that encompasses six units including the Traffic Safety Unit, Intelligent Transportation Systems and Signals Unit, Traffic Management Unit, Signing and Delineation Unit, Traffic Systems Operations Unit, and Oversize and Overweight Permit Unit. The mission of the Division is to provide safe and efficient movement of all modes of transportation through the research, design, and implementation of innovative traffic safety and operation strategies. Kevin and members of his team continue to be involved in statewide and national efforts to advance their mission through research, the development and application of effective policies, and development of operational techniques that improve traffic flow and improve safety for motorists, pedestrians and cyclists. The Transportation Mobility and Safety Division directs various programs that have a combined annual budget of over \$100 million.

Kevin is a proud member of the 1984 senior class of North Lenoir High School in LaGrange, North Carolina. He earned a Bachelor of Science in Civil Engineering in 1994 from North Carolina State University. Between high school and college, Kevin served in the United States Coast Guard where he was stationed in Seattle, Washington and Fort Macon, North Carolina. Kevin and his wife, Gina, have two children and three grandchildren.

Catherine McGhee, Associate Director for Safety, Operations & Traffic Engineering, Virginia DOT

Ms. McGhee has been with VTRC since 1993. Her research focus is traffic engineering and system operations, data archiving and management, simulation, and advanced technologies for improved mobility and safety. She leads VDOT's research program on connected vehicles and works with VDOT staff and University partners to develop, test and deploy equipment and applications within the Virginia Connected Corridors to advance VDOT's mission of delivering safe and efficient mobility. She currently serves as the secretary for the Transportation Research Board Committee on Regional Transportation Systems Management and Operations (AHB10). Additionally, Ms. McGhee is a stakeholder for the National Surface Transportation Safety Center for Excellence at the Virginia Tech Transportation Institute (VTTI) and a member of the Advisory Council for the Institute for Transportation Research and Education at NC State.

Chris Monk, Chief of the Human Factors Division, NHTSA

Chris Monk, PhD, is the Chief of the National Highway Traffic Safety Administration's (NHTSA) Human Factors/Engineering Integration Division. He is responsible for developing, planning, conducting, and coordinating NHTSA's research program pertaining

to the human factors of advanced safety and driver information systems, driver distraction and impairment, and the safe application of advanced technologies. He is a recognized international authority on driver distraction and driver-vehicle interactions, and is currently the co-chair of Human Factors Working Group under the trilateral agreement between the United States, the European Commission, and Japan to examine critical issues related to Intelligent Transportation Systems and automated vehicles.

Hope Mozingo, Deputy Commissioner of Motor Vehicles, NCDOT

Hope Mozingo was named Deputy Commissioner for Support in July, 2016, overseeing budgets, legislative affairs and human resource administration. She was named Assistant Commissioner by Commissioner Kelly Thomas in November 2013. Deputy Commissioner Mozingo came to the Division of Motor Vehicles in 1996, holding various management roles including Director of Budget and Personnel and Director of Operations. She began her career with the state of North Carolina in 1989 as an auditor with the Department of Commerce, and served a brief time in 2012 as Assistant Director of Financial and Administrative Services with the NCDOT Public Transportation Division.

Ms. Mozingo graduated from Barton College with a Bachelor of Science degree in Business Administration and received her Associate of Applied Science degree in Accounting from Johnston Community College.

Suzanne Murtha, Project Director, Atkins

Suzanne Murtha is a Project Director for Atkins North America's DOT practice. She is based in Alexandria, Virginia and is also Executive Director for OmniAir Consortium, trade association that advocates for the development and promotion of certification for the intelligent transportation industry.

A 20-year veteran of the ITS industry, Suzanne has significant background in ITS and advanced automotive technologies including dedicated short-range communications, connected vehicles, and emerging markets such as autonomous vehicles. She has worked in-depth with the international ITS community and industry on advanced research, standards development, and certification processes. She has supported large-scale program management contracts and evaluation efforts for federal, state, local, and private clients.

Michael L. Pack, Director, Center for Advanced Transportation Technology Laboratory, University of Maryland

Michael Pack is the Director of the University of Maryland CATT Laboratory—the largest traffic information analytics laboratory in the world. He has previously worked at the Oak Ridge National Laboratory and the University of Virginia. He was honored at the White House as a Champion of Change in the Transportation Industry for his work encouraging the thoughtful use of open data for better decision making.

Marygrace Parker, Freight, Mobility, Safety & Security Coordinator, I-95 Corridor Coalition

Marygrace M. Parker serves as the Program Coordinator, Freight Mobility, Safety & Security, and Program Coordinator, Travel Information, for the I-95 Corridor Coalition. She led the development of and serves as project manager for the Coalition's nationally recognized Freight Academy professional development effort. In her Operations related work, Mrs. Parker has coordinated ITS related projects to support Significant Events Planning, Coordinated Incident Management, and Travel Information.

Prior to her work with the Coalition, Mrs. Parker served as Director of the Office of Traffic Management for the New York State Thruway Authority. Previous to that she served as a Sergeant/Station Commander with the New York State Police.

Mrs. Parker is a member of the TRB Intermodal Freight Committee and has served on several NCHRP studies related to Freight.

Jennifer Portanova, State Systems Engineer, NCDOT

Jennifer Portanova, PE has over 20 years of experience in the transportation industry, specializing in traffic operations. During her 14 years with NCDOT, she has led the statewide incident management, traveler information, and traffic operation programs. Most recently, as the State Systems Engineer, she focuses on arterial management and integrated corridor management with an emphasis on signal systems timing. She is a 1995 graduate of NC State University with a Bachelor of Science in Civil Engineering, professional engineer, certified public manager, and the co-chair of I-95 CC HOGS.

Rich Schuman, VP for Public Sector Strategy and Partnering, INRIX

Rick Schuman is INRIX's Vice President for Public Sector Strategy and Partnering. INRIX helps leading automakers, fleets, governments and news organizations make it easier for drivers to navigate their world. a leading provider of traffic and driving-related, providing real-time data and analytics insight supporting more than 450 clients in over 60 countries. Rick serves as the Project Manager for the I-95 Corridor Coalition's Vehicle Probe Project, still the world's leading project for the provision of real-time traffic data, under which INRIX provides real-time data for over 65,000 miles in 8 states. Rick is also the original author of the INRIX National Traffic Scorecard series of reports. An original staff member of ITS America, Rick has been deeply involved in ITS and transportation operations issues for 25 years.

Matt Smith, ITS Program Manager, Michigan DOT

Matt Smith's career in transportation has spanned 22 years. Matt is MDOT's Intelligent Transportation Systems Administrator, and has been with the Department since 2006. In this role, he is responsible for setting and implementing the strategic direction for the state's ITS and Connected Vehicle programs, and managing the Department's \$30 million annual ITS budget. He also participates in a

number of national connected and automated vehicle initiatives, as a member of the AASHTO Vehicle to Infrastructure Deployment Coalition Executive Committee, a member of the AASHTO Transportation Systems Management and Operation Leadership Team, a member of the multi-state Connected Vehicle Pooled Fund Study, a member of two NCHRP panels for Connected and Automated Research activities, and a member of TRB's Standing Committee on Vehicle-Highway Automation. Matt received a degree in Civil Engineering from Penn State University in 1993.

Tony Tagliaferri, Metrolina Regional ITS Engineer, NCDOT

Rich Taylor, Federal Highway Administration

Rich Taylor is the Operations Performance Measures and Management Program Manager in the Federal Highway Administration's Office of Operations. Rich is currently leading the development of MAP-21 measures for National Highway Performance Program (NHPP) "system performance" and Congestion Mitigation and Air Quality (CMAQ) Improvement Program "traffic congestion." Prior to joining FHWA, Rich worked for ITS America, Wilbur Smith Associates, and was a Research Scientist for the Virginia Department of Transportation. Mr. Taylor holds Bachelor of City Planning, Master of Planning (with a Certificate in Historic Preservation), and Master of Science in Civil Engineering degrees from the University of Virginia.

Anita Vandervalk, Principal, Cambridge Systematics

Ms. Anita Vandervalk-Ostrander, P.E., PMP is a principal and Director of Florida Operations for Cambridge Systematics, Inc. Ms. Vandervalk has 25 years of experience in transportation engineering and planning projects at national, statewide, and metropolitan levels. During the past fifteen years she has been with Cambridge Systematics managing a large number of state, national and research data management, asset management and performance measures projects in transportation planning, operations, traffic and Intelligent Transportation Systems (ITS) fields across the country. She is also a former Planning Data Office Department Head with Florida Department of Transportation (DOT). She recently chaired the Transportation Research Board (TRB) Statewide Data and Information Systems Committee and is also Past President of ITS Florida. Ms. Vandervalk has a Bachelor of Science in Civil Engineering from Queen's University in Ontario.

Battle Whitley, Division 5 Maintenance Engineer, NCDOT

Stanley Young, Research Scientist, National Renewable Energy Laboratory

Dr. Young serves as a transportation researcher at the National Renewable Energy Laboratory in Golden, Colorado focused on sustainability impacts of connected and automated vehicles. From 2006 through 2015 he was on staff at the University of Maryland's Center for Advanced Transportation Technology where he initiated research into arterial performance measures based on emerging data sources. He was the technical architect of the Vehicle Probe Project, the first and largest multi-state traffic monitoring system based on vehicle probe data. He also developed Bluetooth re-identification traffic monitoring, and co-founded Traffic Inc. to commercialize its. He spent twelve years at the Kansas Department of Transportation, is an alumnus of Kansas State University, and served in the United States Peace Corps in Cameroon, West Africa.