

NaTMEC 2020 Preliminary Agenda*

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All activities take place or originate at the Raleigh Convention Center, Raleigh, NC.

**subject to change*

Monday, June 1, 2020

7:30 AM – 3:30 PM Exhibitor Registration Open

8:00 AM – 4:00 PM Exhibitor Setup

9:00 AM – 11:45 AM Mobile Workshop

City of Oaks Tour de NaTMEC (402)

Join leaders from the City of Raleigh and the Institute of Transportation Research and Education (ITRE) on a bicycling tour along Raleigh's extensive greenway network. The ride will include highlights of Raleigh's best public spaces such as Pullen Park, the North Carolina Art Museum Park, and the recently renovated Moore's Square. Speakers may include representatives from NCDOT, the North Carolina Museum of Art, and the Raleigh Parks and Recreation Department to share creative ways they leverage user volume data collected on the greenways and road network to support their missions. Over three quarters of the ride will take place on paths that are separated from motor vehicle traffic using a fleet of e-bikes available through the city's Citrix Cycle bikeshare program. Final route (TBD) will be no more than 15 miles; ride pace is casual.

Registration and payment of fee in advance is required; space is limited.

10:15 AM – 3:15 PM TMG Panel Meeting -invitation only (302B)

12:00 PM – 5:30 PM Registration

1:00 PM – 3:00 PM Workshops

Bicycle and Pedestrian Count Programs: Challenges Encountered, Lessons Learned, and Recommendations for Success from State DOTs (302A)

Speakers: Sarah Searcy, Institute for Transportation Research and Education; Aaron Moss, Colorado Department of Transportation; Eric Katz, Florida Department of Transportation in-house consultant from Marlin Engineering; Rich Jones, Ohio Department of Transportation; John Bolecek, Virginia Department of Transportation

This workshop will provide an opportunity for state DOTs with established bicycle and pedestrian counting programs or programs in development to discuss their progress and outcomes. The goal of the workshop is to facilitate an open discussion on challenges encountered, lessons learned, and recommendations for coordinated statewide bicycle and pedestrian count data collection that provides a national-level update and information exchange between the states.

Guide for Users of Weigh-In-Motion (304)

Speakers: Hans van Loo, Corner Stone Int. / ISWIM; Steven Jessberger, FHWA,

This workshop will be based on the content of both FHWA and ISWIM Guides and will provide an overview of all different aspects related to weigh-in-motion (WIM) technology, working, specification, purchase, installation, testing, operation, calibration and maintenance of WIM systems, and the application of the data they produce. To enhance accessibility for users starting with WIM, these topics will be covered in an easy-to-understand language by representatives of the guides. Participants will receive a general introduction to WIM and an overview of WIM technologies, applications, procurement, and implementation.

1:00 PM – 3:30 PM Workshop

Development of a Connected Truck Platform (402)

Speakers: Gene Conti, The Conti Group; Keith Wine, Intelligent Imaging Systems/Drivewyze; John Barton, HNTB

This workshop will focus on the following network highlights:

- business strategy and culture transformation, not just about technology,
- interactive transformative visualization,
- potential public-private partnership,
- a clear roadmap for an integrated and innovative convergence of freight data,
- focus in on safety (#1 priority in everything we do), reducing commercial vehicle related injuries and fatalities,
- real-time information, not just data,
- innovation and modularity, and
- customer and productivity driven.

3:00 PM – 5:30 PM Workshop

Traffic Volume Estimation for Lower Roadway Functional Classes (302C)

Speakers: Steven Jessberger, FHWA; Marc Starnes, FHWA; Ioannis (Yianni) Tsapakis, Texas A&M Transportation Institute (TTI)

This workshop, promoted by the International Society for Weigh in Motion (ISWIM), presents a series of best practice case studies highlighting the number of ways in which WIM systems can be deployed and utilized. It is intended for agencies including weight enforcement, private and public road or bridge operators and maintenance organizations. The presented best practices aim to illustrate to both potential and existing end-users of the technology, the versatility of the equipment, the applications of the measured mass data and the benefits it can provide. Each of the case studies should be around 10-15 minutes in duration providing the audience the opportunity to question the presenters and provoke stimulating discussion.

3:15 PM – 5:15 PM Workshop

ISWIM End-Users Workshop (304)

Speakers: Andy Lees, Q-Free UK; Hans van Loo, Corner Stone Int.; Roy Czinku, International Road Dynamics; Jon Arnold

This workshop, promoted by the International Society for Weigh in Motion (ISWIM), presents a series of best practice case studies highlighting the number of ways in which WIM systems can be deployed and utilised. It is intended to be of particular interest to different agencies including weight enforcement, private and public road or bridge operators and maintenance organisations. The presented best practices aim to illustrate to both potential and existing end-users of the technology, the versatility of the equipment, the applications of the measured mass data and the benefits it can provide. Each of the case studies should be around 10-15 minutes in duration providing the audience the opportunity to question the presenters and provoke stimulating discussion.

3:30 PM – 5:30 PM Workshop

Getting Executive Level Support When Developing Nonmotorized Volume Data Programs (302A)

Speakers: Chris Francis, Marlin Engineering; Tianjia Tang, FHWA; Ed Hutchinson, Florida Department of Transportation; Steve Bentz, Florida Department of Transportation; Eric Griffin, Florida Department of Transportation

In this lively presentation and discussion, workshop leaders will present on the status of best management and program development practices across the nation. The workshop will include a review of how FDOT has developed program interest with FHWA, FDOT and other agencies. Key lessons learned and organizational program management aspects of the program will be presented.

5:30 PM – 8:30 PM Reception, Exhibit Opening (Ballroom B)

Tuesday, June 2, 2020

7:00 AM – 5:00 PM Registration

7:00 AM – 5:00 PM Exhibits Open (Ballroom B)

7:00 AM – 8:00 AM Breakfast, Networking (Ballroom A & B)

8:00 AM – 9:15 AM Opening Plenary Session (Ballroom A)

Exhibitor Quiet Hours (Ballroom B)

*Speakers: TBD, Collaborative Sciences for Road Safety, UNC Highway Safety Research Center
David Howard, Chief Deputy Secretary, North Carolina Department of Transportation
Steven Jessberger, Office of Highway Policy Information, FHWA*

9:15 AM – 9:45 AM Break

9:45 AM – 10:45 AM **Session 1**

Track A: FHWA Collaboration, Data Visualization and Autonomous Vehicles (301A)

Moderator: David Winter, FHWA

- **Collaboration with FHWA to implement weighted VMT for vehicle class distribution**
Speaker: Jerry Einolf, Maryland State Highway Administration
- **Supplementing ATSPM Data and Visualizing Results**
Speaker: Tyce Herrman, HDR

Track B: Data Applications to Understand Intersection Safety for Pedestrians (302A)

Moderator: Shawn Turner, Texas A&M Transportation Institute

- **Risk and Contributing Factors of Pedestrian Involved Crashes at Signalized Intersections**
Speaker: Myunghoon Ko, Texas A&M Transportation Institute
- **Innovative Ways to Leverage Intersection Data for Safety**
Speaker: Anita P Vandervalk- Ostrander, Iteris, Inc
- **Understanding Safety and Pedestrian Acceptance in Build-Up Areas along the National Road: A Case Study on the South Africa National Road Agency Limited Network in the Northern Region Roads Network**
Speaker: Malesiba Mabe, SANRAL

Track C: Innovative Collection and Forecasting (304)

Moderator: Yao-Jan Wu, University of Arizona

- **Single Beam Lidar Detection for Truck-Body Type Classification**
Speaker: Magdalena Asborn, University of Arkansas
- **Using Temporary Traffic Control and Data Collection for Forecasting**
Speaker: Bryant Ficek, Spack Solutions
- **Estimating School Queue Length Using the Municipal and School Transportation Assistance Calculator: Lessons Learned Collecting Traffic Data at Public and Charter Schools in North Carolina (lightning talk)**
Speaker: Chris Vaughan, Institute for Transportation Research & Education at North Carolina State University

Track D: Estimating Volume from Big Data (302C)

Moderator: Jonathon Regehr, University of Manitoba

- **Ubiquitous Volume Estimation for Off-freeway Road using Machine Learning - A Case study in State of North Carolina**
Speaker: Yi Hou, National Renewable Energy Laboratory
- **Accuracy of Probe-Based AADT Estimates in U.S.-Mexico Border Regions**
Speaker: Ioannis (Yianni) Tsapakis, Texas A&M Transportation Institute (TTI)

10:45 AM – 11:00 AM **Break**

11:00 AM – 12:00 PM Session 2

Track A: Traffic Data Quality, Using Traffic Data within Energy Dashboards, and Common Traffic Data Operating Platforms (304)

- **Moderator:** Darren Buck, FHWA **Data Governance to Ensure Traffic Data Quality - Ohio's Data Governance Program**
Speaker: Anita P Vandervalk- Ostrander, Iteris, Inc., and David Gardner, Ohio Department of Transportation
- **Transportation Energy Analytics Dashboard**
Speaker: Mark Franz, Center for Advanced Transportation Technology Laboratory
- **Common Operating Platform**
Speaker: Mark Franz, Center for Advanced Transportation Technology Laboratory

Track B: Bicycle and Pedestrian Data - Rating Datasets, Collecting Nontraditional Data, and Using Big Data (302A)

- **Moderator:** TBD **Rating Datasets for the National Pedestrian and Bicycle Safety Data Clearinghouse**
Speaker: Krista Nordback, UNC Highway Safety Research Center
- **Using Big Data to Estimate Bike and Pedestrian Crash Rates**
Speaker: Sean Co, Streetlight Data
- **Innovative Data Collection and Analysis of Pedestrian Trespassing Along Railroad Right-of-Ways in North Carolina (lightning talk)**
Speaker: Sarah Searcy, Institute for Transportation Research and Education (ITRE)

Track C: Passive and Crowdsourced Data Collection for Conflation and Modeling (301A)

Moderator: Margaret Pridmore, Idaho Department of Transportation

- **MAG's Experiences in Applying New Generation Passive Travel Data to External Travel Study**
Speaker: Wang Zhang, Maricopa Association of Governments
- **Advanced Applications of Crowdsourced Traffic Data**
Speaker: Xiaofeng Li, University of Arizona, Yao-Jan Wu, University of Arizona
- **Evaluation of Spot Mobility Projects Using Traffic Data (lightning talk)**
Speaker: Timothy Nye, North Carolina Department of Transportation
- **Finding Promising Rural Spot Mobility Projects in North Carolina Using Probe Data (lightning talk)**
Speaker: R.J. Porter, VHB, Joseph Hummer North Carolina Department of Transportation

Track D: How Much? Evaluating Impacts with Traffic Data

Moderator: Patrick Zhang, FHWA

- **Oregon Metro's Transportation Benefit-Cost Analysis Tool**
Speaker: Kyle Hauger, Metro
- **Impact of Vehicle Position Sensing Range on Effectiveness of Real-Time Adaptive Control**
Speaker: Chris Day, Iowa State University
- **Investigating the impact of dynamic congestion pricing on I-66**
Speaker: Sara Zahedian, University of Maryland

12:00 PM – 1:15 PM Lunch (Ballroom A)

1:15 PM – 2:15 PM Session 3

Track A: Poster Session - Compilation of Counting Data Applications (402)

Moderator: Sarah O'Brien, UNC Highway Safety Research Center

- **2018-2019 Bicycle and Pedestrian Continuous Count Equipment Maintenance for NCMVDP**
Speaker: Craig Baird, Institute for Transportation Research and Education at North Carolina State University
- **Engaging the Public in Transportation Through Citizen Advisory Boards**
Speaker: KC Chae, Felix Nwoko, Leta Huntsinger, Durham- Chapel Hill-Carrboro Metropolitan Planning Organization
- **Space Versus Mode - a Cordon Count Spatial Study of Montreal's Plateau-Mont-Royal Borough**
Speaker: Olivia White, Eco-Counter
- **Beyond MAP21 Requirements - Assessing Travel Time Reliability and Congestion of Virginia Roads**
Speaker: Simona Babiceanu, Virginia Department of Transportation
- **Micro-mobility – Tackling the Data Integration Challenge with Mobility Data Specification (MDS)**
Speaker: John Lower, FITE, LCI, Iteris, Inc.

Track B: Different Ways to Measure Operational Performance (302A)

Moderator: Sirisha Kothuri, Portland State University

- **Impact of Access Management (AM) to the Operational Performances of Vehicles and Pedestrian**
Speaker: Deo Chimba, Tennessee State University
- **Validating Pedestrian Traffic Signal Push Button Data as a Measure of Walking Activity at Signalized Intersections**
Speaker: Ferdousy Runa, Utah State University
- **Performance Beyond Vehicles: How Computer Vision Can Help Measure Performance from the Perspective of Vulnerable Road Users (lighting talk)**
Speaker: Matthew Trushinski, Miovision Technologies

Track C: Using Probe Data for Travel Demand Modeling (301A)

Moderator: TBD

- **Fiber Optic Sensing for Traffic Modeling**
Speaker: Paul Cooper, OptaSense
- **Data Integration, Analytics and Quality Control of Probe Speed Data**
Speaker: Rafael Almario, Cambridge Systematics, Inc.
- **Vehicle Trajectories for Improved Planning and Operations**
Speaker: Rick Ayers, CATT Laboratory

Track D: Using Big Data to Understand Travel (302C)

Moderator: Jeremy Raw, FHWA

- **Estimating Traffic Patterns on an Urban Road Network using Passively Collected Data**
Speaker: Giuseppe Grande, University of Manitoba
- **Counting on Big Data to Clarify Annual, Monthly, and Hourly Counts**
Speaker: Martin Murray, StreetLight Data

- **Data Integration and Analytics, Quality Controls, and Storage**
Speaker: Finn Swingley, HERE Technologies

2:15 PM – 2:45 PM Break

2:45 PM – 3:45 PM Session 4

Track A: Identifying and Using Congestion, Travel Time, Speed and Reliability Measures (302A)

Moderator: Robert Bryson, ASCE

- **Congestion Bottleneck Identification, Ranking and Before/After Analysis on Arterials**
Speaker: Mo Zhao, Virginia Transportation Research Council
- **Congestion, Reliability and Incidents: New York State Department of Transportation's NPMRDS Analysis Tools**
Speaker: Catherine T. Lawson, University at Albany
- **Identification of Congestion Bottlenecks using Probe Data in North Carolina**
Speaker: Jason Schronce, North Carolina Department of Transportation

Track B: MIRE (304)

Moderator: Nancy Lefler, UNC Highway Safety Research Center

- **North Carolina's Experience with MIRE**
Speaker: Brian Murphy, North Carolina Department of Transportation
- **UDOT PILOT TO MEET MIRE 2.0 LOCAL PAVED AADT REQUIREMENT**
Speaker: Nicolas Black, Utah Department of Transportation
- **Technical Strategies for the Optimal Execution of a MIRE project**
Speaker: Emmanuel Munoz Garcia, SERVICIOS MEXICANOS DE INGENIERIA CIVIL (SEMIC)

Track C: Using Automation for Scheduled and Permanent Count Collection (301A)

Moderator: Chris Cunningham, Institute for Transportation Research and Education

- **Automation of Traffic Count Data Collection: A Paperless Solution**
Speaker: Jamie Viera, North Carolina Department of Transportation
- **AI Based Permanent Traffic Count for Counting and Classification, a New Practical Approach to Permanent Count**
Speaker: Terry Lee, Leetron Vision LLC, Andrew Haynes, New York State DOT
- **Micromobility Data and Privacy: Making Data Accessible and Safeguarding Personal Information**
Speaker: Rodney Stiles, Populus

Track D: Challenging Traffic Data Uses (302C)

Moderator: Mark Hallenbeck, University of Washington

- **Walking with Biosensing Wristbands: An Exploration of Pedestrian Stress in Natural and Urban Environments**
Speaker: Seth LaJeunesse, UNC Highway Safety Research Center
- **School Generated Traffic Data Collection**
Speaker: Kimberly Hinton, North Carolina Department of Transportation
- **Investigation of Technology to Allow the Tracking of Wait Times and Traffic Points of Origin for Users of the Ferry System**

Speaker: Steven A Bert, Institute for Transportation Research and Education at North Carolina State University

3:45 PM – 4:00 PM Break

4:00 PM – 5:00 PM Session 5

Track A: Innovative Approaches to Using Data Analytics and Big Data Sources (302A)

Moderator: AJ Nedzesky, Federal Highway Administration

- **Big Data and Analytics for Performance Measurement**
Speaker: Bob McQueen, Bob McQueen and Associates
- **Integrating Data Sources to Measure Highway System Performance**
Speaker: Don Pickrell, Volpe Center--U.S. Department of Transportation
- **Use of Performance Measures to Improve Data Quality**
Speaker: Nancy Lefler, UNC Highway Safety Research Center

Track B: Poster Session - Bicycle and Pedestrian Safety, Travel Monitoring, and Relating the Two (Poster Session)

Moderator: Sarah O'Brien, UNC Highway Safety Research Center

- **Systemic, Risk-based Pedestrian Safety Process**
Speaker: Libby Thomas, UNC Highway Safety Research Center
- **Analyzing Capacity in Real-Time at Large Scale Events using Multi-Modal 3D Imaging Counters**
Speaker: Olivia White, Eco-Counter
- **Safety in Numbers? Developing Improved Safety Predictive Methods for Pedestrian Crashes at Signalized Intersections in Utah Using Push Button-Based Measures of Exposure**
Speaker: Ahadul Islam, Utah State University
- **Revealing the Hidden Patterns of the E-Scooter Trips through Big Data Approach**
Speaker: Nitesh Raj Shah, The University of Tennessee, Knoxville
- **Developing Typologies (Factor Groups) of Pedestrian Activity Patterns at Signalized Intersections Using Pedestrian Push Button Data**
Speaker: Patrick A. Singleton, PhD, Utah State University
- **Where to Count Next: A Strategic Approach to Bicycle and Pedestrian Count Deployment**
Speaker: Jessica Schoner, Toole Design Group

Track C: Quality AADTs for Ramps, Local Roads, and Towns (301A)

Moderator: Yianni Taspakis, Texas A&M Transportation Institute

- **Criteria and Methodology for Estimating AADT from Short-Duration Counts in Towns**
Speaker: Karalee Klassen-Townsend, University of Manitoba
- **Estimating AADT on All Local Functionally Classified Roads in North Carolina**
Speaker: Srinivas S. Pulugurtha, The University of North Carolina at Charlotte
- **Developing a Data-Driven Performance Evaluation Tool for Ramp Metering**
Speaker: Adrian Cottam, The University of Arizona

Track D: Using Data to Tell a Story

Moderator: Tianjia Tang, Federal Highway Administration

- **Mapping Truck Tonnage in Florida Using Weight-in-Motion Data**
Speaker: Evangelos Kaisar, Florida Atlantic University

- **Visualization of Traffic Monitoring Analysis System Information**
Speaker: Hyeonsup Lim, ORNL
- **Synthesizing the Effect of Trucks on Travel Time to Identify Related Chokepoints**
Speaker: Srinivas S. Pulugurtha, The University of North Carolina at Charlotte

6:00 PM – 7:00 PM Meetings

ABJ35(4) Research Subcommittee (301B)

Chair: Ioannis (Yianni) Tsapakis, Texas A&M Transportation Institute

ABJ30(3) Travel Time, Speed, and Reliability Subcommittee (302B)

Chair: Mei Chen, University of Kentucky

Wednesday, June 3, 2020

7:00 AM – 5:00 PM Registration

7:00 AM – 8:00 AM Breakfast, Networking (Ballroom A)

7:00 AM – 3:00 PM Exhibits Open (Ballroom B)

8:00 AM – 9:00 AM Session 6

Track A: Effectively Communicating Critical Traffic Data Information (302C)

Moderator: Clayton Clark, Federal Highway Administration

- **Highway is Closed: Where Will 90K AWDT Go Next? A Case Study of Tracking the Daily Impacts from Having SR 99 Closed for Three Weeks in Seattle, WA (lightning talk)**
Speaker: Jeffrey Connor, Seattle Department of Transportation
- **Communication is More than a Two-Way Street: How Increasing User Engagement in PORTAL, Regional Transportation Data Archive Has Led to a Better User Experience (lightning talk):**
Speaker: Tammy Lee, Transportation Research and Education Center, Portland State University
- **Generation and Use of Peak ADT Factors in North Carolina Department of Transportation Prioritization**
Speaker: Jason Schronce, North Carolina Department of Transportation

Track B: Role of Traffic Data in Improving Identification and Prediction of Safety Issues (301A)

Moderator: Krista Nordback, UNC Highway Safety Research Center

- **Improving Safety Predictions by Using Traffic Monitoring Data**
Speaker: Mike Fontaine, Virginia Transportation Research Council
- **Using Traffic Data to Understand Transportation Issues**
Speaker: Carrie Simpson, North Carolina Department of Transportation

Track C: GIS Traffic Modeling & Tools (304)

Moderator: Joseph Hausman, Federal Highway Administration

- **Modernizing Traffic Monitoring Analytics and Reporting at ALDOT**
Speaker: Dawson B. Grant, Alabama Department of Transportation
- **Coverage Count Program Management and Data Processing with ESRI ArcGIS Tools + Custom Software**
Speaker: Charles Fawcett, PE, PTOE, DLZ
- **An Intersection-based Network Conflation Method (lightning talk)**
Speaker: Xu Zhang, Kentucky Transportation Center

Track D: Effective WIM Data Quality Checks (302A)

Moderator: Peter Brzostowski, New Jersey Department of Transportation

- **Quality Checks for WIM**
Speaker: Andy Lees, Q-Free UK
- **FDOT's Approach for Ensuring WIM Data Quality**
Speaker: Olga Selezneva, ARA
- **Weight Measurement Imbalance Between the Left and Right Front Axle Wheels of a Truck G35 (lightning talk)**
Speaker: Naristi Neale, Mikros Traffic Monitoring

9:00 AM – 9:15 AM Break

9:15 AM – 10:45 AM Super Session 1

Track A: Program Development: FHWA's 2021 Traffic Monitoring Guide Project and State Traffic Monitoring (304)

Moderator: William Morgan, Illinois Department of Transportation

- **Highlights of 2021 FHWA Traffic Monitoring Guide Update**
Speaker: Olga Selezneva, ARA
- **Idaho Transportation Department Traffic Monitoring: Re-envisioning, Re-inventing, and Re-learning our Purpose**
Speaker: Margaret Pridmore, Idaho Transportation Department
- **IDOT Annual Traffic County Cycle to Meet Program Needs**
Speaker: Michael A. Miller, Illinois Department of Transportation

Track B: Measuring Intersection Safety and Operational Performance: Do Different Data Inputs Yield Different Outcomes for What's "Safe"? (302A)

Moderator: Anita Vandervalk, Iteris, Inc.

- **Beginning to Use High-Quality Crash Data During Projects: The Safest Feasible Intersection Design Charts**
Speaker: Joseph E. Hummer, PhD, PE, North Carolina Department of Transportation
- **Scaling Traffic Signal Performance Metrics with Low Penetration GPS Trajectory Data**
Speaker: Stephen Remias, Wayne State University
- **Proactive Safety - Reducing Crashes at High Risk Intersections Using Video Analytics**
Speaker: Andrew Janzen, Street Simplified LLC
- **Explore Energy Equivalence of Safety for Crashes at Intersections (lightning talk)**
Speaker: Lei Zhu, National Renewable Energy Laboratory

Track C: Measuring Congestion Causes and Speed Data (301A)

Moderator: Clayton Clark, Federal Highway Administration

- **Data: The Real Tip of the Spear for All Traffic, Congestion and Transportation Studies**
Speaker: Wes Guckert, PTP, Institute of Transportation Engineers
- **Statewide Recurring and Nonrecurring Interstate Congestion**
Speaker: Chien-Lun Lan, Virginia Transportation Research Council
- **Arterial Bottleneck Detection and Characterization Using an Optimized Wavelet Filter with Spatio-temporal Data Mining Techniques**
Speaker: Shayan Khoshmagham, Iteris Inc
- **Identifying and Quantifying the Causes of Congestion**
Speaker: Mark Franz, Center for Advanced Transportation Technology Laboratory
- **Varied Use of Probe Speed Data at NCDOT (lightning talk)**
Speaker: Kelly E. Wells, PE, North Carolina Department of Transportation

Track D: Options for Bicycle and Pedestrian Monitoring (302C)

Moderator: Darren Buck, Federal Highway Administration

- **MassDOT Statewide Bicycle and Pedestrian Counting Program Pilot Study**
Speaker: Sudhir Murthy, TrafInfo Communications
- **Processing Bike and Pedestrian Count Data with R Towards a Generalizable Library**
Speaker: Josh Roll, Oregon Department of Transportation
- **Emerging Sources of Pedestrian and Bicyclist Count Data**
Speaker: Shawn Turner, TTI
- **Exploring Data Fusion Techniques to Derive Bicycle Volumes Along a Network Understanding Bicycle**
Speaker: Sirisha Kothuri, Portland State University
- **Ridership Using Bias-Corrected Crowdsourced Data**
Speaker: Avipsa Roy, Arizona State University

10:45 AM – 11:00 AM Break

11:00 AM – 12:00 PM Session 7

Track A: GIS Applications Specifically Utilizing Traffic Data (301A)

Moderator: Bill Marley, Federal Highway Administration NC Division

- **Visualizing the Count: Using GIS for Data Collection**
Speaker: Jennifer Fortner, TERRA Engineering
- **Applications of GIS For Transportation (AEGIST)**
Speaker: Joseph Hausman, US DOT/FHWA
- **NCDOT Interactive Traffic Statistics Map**
Speaker: Stacy Culpepper, North Carolina Department of Transportation

Track B: Reliable Travel Time, Crash Risk, and Safety (302A)

Moderator: Sam Granato

- **Extending the "Potential for Safety Improvement (PSI)" Concept to Travel Time Reliability**
Speaker: Ramkumar "Ram" Venkatanarayana, Virginia Transportation Research Council

- **Keeping Drivers Informed: Evaluating and Improving the Performance of a Bluetooth Travel Time Delay Messaging System through Data Analysis**
Speaker: Cameron Berko, IBI Group
- **The Temporal Variation of Crash Risk in a Network: Analyzing Data from El Paso, Texas (lightning talk)**
Speaker: Farinoush Sharifi, Texas A&M Transportation Institute

Track C: Poster Session - Travel Monitoring Fundamentals and Innovative Collection, Processing, and Managing Tools (402)

Moderator: Kerry Morrow, North Carolina Department of Transportation

- **GIS Methods to Check HPMS Traffic Data**
Speaker: Steven Jessberger, FHWA
- **Using Location-Based Services Data to Complement Multimodal Origin and Destination Survey - A Case Study at the University of Minnesota Twin Cities Campus**
Speaker: Yilun Xu, PE, University of Minnesota
- **Traffic Information Management System**
Speaker: Seth Berman, New York City Department of Transportation
- **Crowdsourcing Tools to Train and Evaluation Machine Learning Classifiers: Freight Data Management**
Speaker: Magdalena Asborn, University of Arkansas
- **An Aerial Perspective on Data Collection Programs**
Speaker: Rudy Jones, Quality Counts
- **Validation of AADT Using Turning Movement Counts**
Speaker: Anil Kumar, Jerry Einolf, Abhay Nigam, Maryland State Highway Administration
- **Evaluation of Spot Mobility Projects Using Traffic Data**
Speaker: Timothy Nye, North Carolina Department of Transportation
- **Finding Promising Rural Spot Mobility Projects in NC Using Probe Data**
Speaker: R.J. Porter, VHB, Joseph Hummer, North Carolina Department of Transportation
- **Automating Traffic Incident Management Data Collection with Real-Time Bluetooth-Based Traffic Data**
Speaker: Jeff Kaufman, AICP, Texas A&M Transportation Institute

Track D: What about CAVs? (304)

Moderator: Thomas Chase, Institute for Transportation Research and Education

- **Impact of Connected and Autonomous Vehicles on Freeway Mobility**
Speaker: Shoaib Samanda, Institute for Transportation Research and Education at North Carolina State University
- **Impact of Autonomous Vehicles on Transportation Network Demand in Triangle Regional Area of NC**
Speaker: Md. Mehedi Hasnat, North Carolina State University
- **Regional Impacts of Autonomous Freight Vehicles on Transportation Network Demand: A Case Study of the Triangle Region, NC**
Speaker: Soumya Sharma, North Carolina State University
- **Developing an Innovative and Transformational Strategy for the Connected Truck Ecosystem: A Real Game Changer in Preparing for the Future of Freight**
Speaker: Keith Wine, Intelligent Imaging Systems/Drivewyze

12:00 PM – 1:15 PM Lunch (Ballroom A)

1:15 PM – 2:15 PM Session 8

Track A: In-Depth Methods and Evaluation of Travel Time, Speed, and Reliability Metrics (302C)

Moderator: Mei Chen, University of Kentucky

- **A Methodology to Compute Sources of Congestion in Rhode Island**
Speaker: Deanna Peabody, TrafInfo Communications, Inc.
- **Sensitivity of Travel Time Reliability Measures to Major System Changes**
Speaker: Kartikeya Jha, Texas A&M Transportation Institute
- **Travel Speeds Analysis Based on the NPMRDS**
Speaker: Zhuo Yang, National Research Council

Track B: Using Spatial Data and Analyses to Inform Communications to the Public

Moderator: TBD

- **A Spatial Analysis of Traffic Incidents and Congestion in Mexico City**
Speaker: Sergio Lugo Serrato, Avanti Engineering Group
- **Efficient Horizontal Curve Data Collection and Assessment**
Speaker: James Brennan, Quality Counts
- **Lane Closure Application**
Speaker: Maaza Christos Mekuria, Hawaii DOT

Track C: Making Data Collection Safer (301A)

Moderator: Chris Vaughan, Institute for Transportation Research and Education

- **Cameras are the New Road Tubes**
Speaker: Michael Spack, PE, PTOE, Spack Solutions
- **Maximizing the Safety of Traffic Monitoring Field Staff at CTDOT**
Speaker: Brad Overturf, Connecticut Department of Transportation

Track D: Getting Good Statistics from WIM (304)

Moderator: Olga Seleznev, Applied Research Associates, Inc.

- **Broadening the Use of Static Scale Data**
Speaker: Deborah Walker, FHWA
- **Effect of Weigh-in-Motion (WIM) Sensor Calibration on Axle Load Spectra**
Speaker: Syed W. Haider, Michigan State University
- **Estimating Truck Load Factors Using Truck Volume and Weight Data**
Speaker: Hyeonsup Lim, ORNL

2:15 PM – 2:45 PM Break

2:45 PM – 3:45 PM Session 9

Track A: The UNSESSION (304)

Facilitators: Penelope Weinberger, AASHTO and Liz Stolz, Marlin Engineering

What did we miss; what's on fire? Visit the easels by registration and add your hot topics for NaTMEC. We will select subjects and leaders/moderators to discuss those issues that arise as critical during the conference. Come participate in a free-form open discussion – unconference yourself!

Track B: Utilizing Data in New Ways to Improve Operations and Safety (302A)

Moderator: Lokesh Hebbani, Federal Highway Administration

- **How Big Data Analytics Can Help in Hurricane Emergency Preparedness and Response?**
Speaker: Masoud Hamedi, Iteris, Inc
- **Real-Time 3rd Party Data for Better Maintenance of Traffic During Construction**
Speaker: Kristin Tso, Iteris, Inc.
- **Assess the Correlation between "Vehicle on Shoulder" Events and Crashes (lightning talk)**
Speaker: Eugene Antwi Boasiako, University of Kentucky

Track C: Policy Changes Affecting Data Availability (301A)

Moderator: Eric Lamb, Raleigh Department of Transportation

- **The Micromobility Data Revolution**
Speaker: Rodney Stiles, Populus
- **Developing and Implementing CTDOT's Traffic Data Repository**
Speaker: Brad Overturf, Connecticut Department of Transportation
- **Federal Research on PM3 Measures and Travel Time Data**
Speaker: Rich Taylor, FHWA

Track D: Innovations in Portable WIM (302C)

Moderator: Debbie Walker, Federal Highway Administration

- **Discovering Loading Specifics with Portable Bridge WIM**
Speaker: Bajko Kulauzovic, Cestel
- **Feasibility of a Portable WIM System for Truck Weight Monitoring on Secondary Highways**
Speaker: Michael Olfert, University of Manitoba
- **Portable Virtual WIM Accuracy**
Speaker: Dr. Andrzej Nowak, Auburn University

3:45 PM – 4:00 PM Break

4:00 PM – 5:00 PM Session 10

Track A: Forecasting, Freight, and Project Prioritization (302C)

Moderator: Chade Saghir, Southeast Michigan Council of Governments

- **Forecasting Use of the US Highway System**
Speaker: Don Pickrell, Volpe Center, U.S. Dept. of Transportation
- **Freight Annual Vehicle Miles of Travel (FAVMT) as a Novel Economic Indicator**
Speaker: Abhay Nigam, Synergy Systems & Services, Inc
- **Project Prioritization Through Data Driven Performance Measures**
Speaker: Taruna Tayal, VHB, Keith Smith, VHB, and Jason Schronce, North Carolina Department of Transportation

Track B: Outside Traditional Traffic Data - Collecting Other Safety Data from the "Side of the Road" (302A)

Moderator: Angela Castro, Southern Nevada RTC

- **North Carolina's Wrong Way Driver Incident Video Collection**
Speaker: Christopher J. Oliver, PE, North Carolina Department of Transportation
- **Finding Solutions for Deficiency of Rest Stops for Commercial Motorists**
Speaker: Majed Al-Ghandour, NC DOT
- **Does Non-Seat Belt Use Relate to Driving Violations in Fatal Crashes? (lightning talk)**
Speaker: Zachary Jerome, The University of Tennessee

Track C: Third Party Data for Modeling (304)

Moderator: Mena Lockwood, Virginia Department of Transportation

- **Optimal Traffic Monitoring in a New Data Age**
Speaker: Justin Ferri, KMJ Consulting, Inc.
- **Tools for Analyzing Signalized Intersections with Vehicle Probe Data**
Speaker: Michael L. Pack, CATT Laboratory, University of Maryland
- **A Look at a Data Fusion Visualization Tool**
Speaker: Robert Benz, Texas A&M Transportation Institute

Track D: A New Perspective on Old Statistics (301A)

Moderator: Robert Bryson, ASCE

- **Linear, Exponential, or Something Else? A Retrospective Analysis of Traffic Growth Rates on Rural Highways**
Speaker: Jonathan D. Regehr Ph.D., P.Eng., University of Manitoba
- **Novel Way to Create More Consistent Seasonal Factors**
Speaker: Jerry Einolf, Anil Kumar & Abhay Nigam, Maryland State Highway Administration
- **Catching the Anomaly: QAQC for Statewide Traffic Monitoring Program**
Speaker: Lindsey Jones, TERRA Engineering

6:00 PM – 7:00 PM Meetings

ABJ35(3) Bicycle and Pedestrian Data Subcommittee (302B)

Chair: Sarah O'Brien, UNC Highway Safety Research Center

ABJ30 Urban Transportation Data and Information Systems Committee (402)

Chair: Mike Fontaine, Virginia Department of Transportation

6:00 PM – 7:30 PM Meeting

ABJ35(2) Weigh-in-Motion Subcommittee (301B)

Chair: Olga Selezneva, Applied Research Associates, Inc.

Thursday, June 4, 2020

7:00 AM – 8:45 AM Registration, Breakfast, Networking (Ballroom A)

7:15 AM – 8:45 AM Meeting

ABJ35 Highway Traffic Monitoring Committee (302B)

Chair: Jonathan Regehr, University of Manitoba

8:45 AM – 10:15 AM Super Session 2

Track A: Nonmotorized Statewide Traffic Data Programs and Public Engagement (302A)

Moderator: Eric Katz, Florida Department of Transportation

- **Non-motorized Traffic Count Program and Public Engagement**
Speaker: Casey Chae, Felic Nwoko, Filmon Fishastion, DCHC MPO
- **Statewide Pedestrian and Bicyclist Monitoring Program in Texas**
Speaker: Shawn Turner, TTI
- **An Update to the North Carolina Non-motorized Volume Data Program's Quality Assurance and Quality Control Processes**
Speaker: Blythe Carter Geiger, Institute for Transportation Research and Education at North Carolina State University
- **The Evolution of North Carolina's Traffic Data Collection Program**
Speaker: Christopher J. Oliver, PE, North Carolina Department of Transportation

Track B: Anticipating Crashes, Managing Traffic Incidents, the Role of Speed in Road Safety (304)

Moderator: Nancy Lefler, UNC Highway Safety Research Center

- **Effect of Average Speed on Crash Prediction Model for Rural Two-Lane Roads**
Speaker: Fahmida Rahman, University of Kentucky
- **Data-Driven Method for Assessing Network-Wide Speeding Issues**
Speaker: Abolfazl Karimpour, The University of Arizona
- **Traffic Incident Management Analytics Derived from Crash and Traffic Data Fusion**
Speaker: Keith Vertin, Digital Traffic Systems
- **After Action Review of Two Major Bridge Crashes on the DC Capital Beltway (I-495)**
Speaker: Greg Jordan, CATT Laboratory of the University of Maryland

Track C: Data Modeling for Planning (301A)

Moderator: Margaret Pridmore, Idaho Department of Transportation

- **Using ANPR Data to Improve Trip Distribution in Transport Models**
Speaker: Alan Robinson, South African National Roads Agency Limited
- **Traffic Information Management System**
Speaker: Hector L Hernandez, New York City Department of Transportation
- **Leveraging Big Data for Transportation Data Analytics**
Speaker: Yaw Adu-Gyamfi, University of Missouri - Columbia
- **ITS and Planning Level Traffic Data Integration at UDOT**
Speaker: Nicolas Black, Utah Department of Transportation

Track D: New Ways to Monitor Traffic (302C)

Moderator: Kent Taylor, North Carolina Department of Transportation

- **Cost Efficient Alternatives for Count and Classify Sites with Optional WIM Data Acquisition**
Speaker: Christoph Klauser, Kistler Instruments
- **Truck Trailer Classification Using Side-fire LiDAR Data**
Speaker: Mecit Cetin, PhD, Old Dominion University
- **Deep-Learning: Drone and Vehicle Detections**
Speaker: Majed Al-Ghandour, North Carolina Department of Transportation
- **Congestion Detection Using Anonymous Re-Identification Sensors for Speed/Travel Time Broadcasting and Safety Improvement (lightning talk)**
Speaker: Patrick Law, Blyncsy

8:45 AM – 10:15 AM Mobile Workshop

Statewide Transportation Operations Center Tour (402)

Visit NCDOT's Statewide Transportation Operations Center (STOC) to learn about this traffic and incident management facility that operates 24 hours a day, 7 days a week (24/7), 365 days a year. Learn some NCDOT and Raleigh trivia while riding aboard a Greater Raleigh Trolley to and from the Center.

The STOC is located in the NC National Guard's Joint Force Headquarters which also houses the operations/communications centers of the NC State Highway Patrol, NC Emergency Management, and the NC Turnpike Authority. The STOC is the focal point where dozens of state-of-the-art technologies converge to provide NCDOT with real-time situational awareness and the ability to manage traffic and incidents across the state. Learn how the STOC serves as a coordination hub for transportation officials and emergency responders when major incidents and events impact NC roadways and its stand-in role managing traffic and incidents for Regional Transportation Management Centers when they are not operating. Transportation to/from the STOC will be provided.

Registration and payment of fee (\$27) in advance is required; space is limited.

10:15 AM – 10:30 AM Break

10:30 AM – 12:00 PM Closing Plenary Session (Ballroom A)

Speakers: David Winter, Director Office of Highway Policy Information, FHWA
William Morgan, Illinois Department of Transportation
TBD

12:00 PM NaTMEC Adjourns

12:15 PM – 1:15 PM Post-Conference Planning Committee Meeting – invitation only (402)

1:30 PM – 4:30 PM AADT: TPF-5 (384) Pooled Fund Study Meeting – invitation only (402)