

Maryland Connected & Automated Vehicles Working Group

Monday, April 17, 2023

12:30 pm – 3:30 pm

In Person: MDOT Secretary's Office, 7201 Corporate Center Dr, Hanover

If you plan to attend this in-person meeting, then you must register at this link.

<https://forms.office.com/g/FKxzs72k2u>

ALL must register to track for max capacity in the facility. Confirmation will be emailed within a day or two of your registration and is on first-come basis with allowances for inclusion of as many organizations as possible.

AGENDA	
12:30 pm	Demonstrations / Showcase Tables / Networking <ul style="list-style-type: none">• Morgan State University• Prince George's County Transportation• University of Maryland College Park• Merlin Mobility• Via Transportation• IT Curves
1:15 pm	Welcome & Opening Remarks <ul style="list-style-type: none">• Secretary Paul Wiedefeld, Maryland Department of Transportation (MDOT)• Administrator Chrissy Nizer, Maryland Department of Transportation Motor Vehicle Administration (MDOT MVA), Co-Chair• Director Tim Kerns, Maryland Department of Transportation Motor Vehicle Administration Highway Safety Office
1:35 pm	Panel Discussion: CAV Tech & Enhancing Safety for Vulnerable Road Users (VRUs) <ul style="list-style-type: none">• Mansoureh Jiehani, Morgan State University• Xianfeng (Terry) Yang, University of Maryland College Park• Ed Jones, Prince George's County Transportation• Peter Carnes, Lantern Vision Systems• Bogdan Butoi, Merlin Mobility MODERATOR: Joseph Sagal , Maryland Transportation Authority
2:40 pm	Short Break – Demonstrations / Showcase Tables / Networking
2:50 pm	Lightning Round Updates – Companies filing Expression of Interest for MD CAV <p>Expressions of Interest (EOI) are submitted from entities interested in research, testing and implementation of CAV in Maryland; process and an online form can be found under <i>Collaboration with Industry</i> at cav.mdot.maryland.gov Each company will provide a brief update to focus on active or pending plans on CAV in Maryland, including partnership opportunities.</p> <ul style="list-style-type: none">○ Via Transportation – Aparna Paladugu○ IT Curves – Joshua Thomas

	<ul style="list-style-type: none"> ○ Lantern Vision Systems – Peter Carnes
3:00 pm	BRIEF Participant Updates / Comments on Panel Discussion <ul style="list-style-type: none"> • Government agencies: Neighboring States; Local Gov't; State Gov't; Federal Partners • Industry / private companies • Academic institutions • Regional / National Organizations / Associations
3:30 pm	Closing and Adjourn <ul style="list-style-type: none"> • Next meeting in late summer 2023

PANEL SPEAKERS:



Bogdan Butoi

Co-Founder & Chief Executive Officer (CEO) of Merlin Mobility

bogdan@drivemerlin.com

[linkedin.com/in/bogdanbutoi](https://www.linkedin.com/in/bogdanbutoi)

Phone: 610.466.5546

Bogdan has over 25 years of experience of leading business, technology and development teams across start-ups, Fortune 25 companies, pharmaceuticals, and utilities. He played a key role in establishing Animas Corporation, a medical device company that was purchased by Johnson & Johnson (J&J) for \$500MM. He

helped the divestiture of Therakos from J&J and sold it to Mallinckrodt Pharmaceuticals for \$1.2B. Bogdan is also a leader in autonomous technology. Using open source software, he created an Automatic Lane Change feature on the Tesla Model S prior to Autopilot's existence. In 2019, Bogdan won the Car Hacking Village competition at DEFCON, the largest security conference in the world.



Peter Carnes

Division President

Lantern Vision Systems

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Phone: 240-988-5848

Peter Carnes has pioneered novel transportation technologies for the last 15 years. His expertise focuses on combining technologies, established and developing, into solutions to real-world problems. As CEO of Traffax, Inc., Carnes commercialized

University of Maryland CATT Lab-developed technology, proving the utility of Bluetooth re-identification. Carnes extended re-identification methodology using LPR output. Merging technologies, Carnes integrated Bluetooth & DSRC technology resulting in the BlueTOAD Spectra product, as well as data use innovation through reporting and analysis tools. Carnes frequently consults to the Eastern Corridor Coalition to apply tech to challenges of member organizations. Lantern Vision Systems is focused on incident avoidance. To communicate threats while still avoidable, purpose-directed AI drives solutions to advance worker safety, pedestrian safety, person safety. Carnes has an undergraduate degree from Limestone College in Gaffney, SC; a graduate degree from Vanderbilt University in Nashville, TN; and has served as adjunct faculty in a graduate engineering program at George Mason University in Fairfax, VA.



Mansoureh Jiehani, Ph.D., PTP

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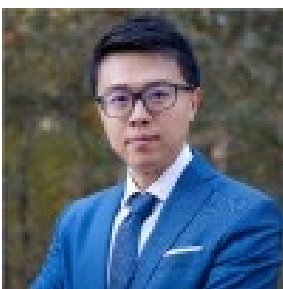
Dr. Mansoureh Jiehani is a professor and the director of both the National Transportation Center at Morgan State University and the Urban Mobility & Equity Center. She has a multidisciplinary background in Civil Engineering/Transportation System, Economics, and Computer Engineering. Dr. Jiehani has over 17 years of experience in applied research in transportation planning and modeling, traveler behavior, intelligent transportation systems connected and autonomous vehicles, traffic safety, and artificial intelligence. She has published a book and about 100 articles in peer-reviewed journals, conference proceedings, and technical reports. She has also been the PI/Co-PI for 37 research grants funded by federal or state agencies totaling over \$8M. Dr. Jiehani is the chair of Distracted Driving – Strategy 3 – Maryland Strategic Highway Safety Plan; a member of the Transportation Research Board (TRB)- Artificial Intelligence and Advanced Computing Applications committee, the Council of University Transportation Centers (CUTC), Maryland Electric Vehicle Infrastructure Council, Maryland Connected & Automated Vehicles Working Group; and National Cooperative Highway Research Program (NCHRP) Panel.



Edward D. Jones

Traffic Operations Manager
Prince George’s County Department of Public Works & Transportation
edjones@co.pg.md.us
<https://www.princegeorgescountymd.gov/1002/Public-Works-Transportation>

Ed is a graduate of West Virginia University Institute of Technology in Industrial Technology and a 21-year employee at Prince George’s County Government. In his current capacity he serves as the lead for Intelligent Transportation System (ITS) /Traffic Operations Manager for the Traffic Response Information and Partnership (TRIP) Center. Previously, he held the position as the Telecommunications Manager for the Prince George's County Office of Information Technology (OIT). In that role, he led medium-to-large project management teams and working groups in assessing industry best practices, strategies and enterprise architecture. Ed’s current achievements include planning the organizational strategy to expand enterprise architecture for “Connected Vehicle” (CV) technology for the County government. He examines feasibility studies, proposals, and in-depth requirements to forecast trends and future technology needs. He communicates technology vision and provides leadership for developing and implementing ITS initiatives.



Xianfeng (Terry) Yang

Assistant Professor and Director of the Maryland-Transportation Research & Artificial Intelligence Lab (M-TRAIL)
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Dr. Yang is an Assistant Professor in Transportation Engineering at the University of Maryland, College Park (UMD). He directs the Maryland Transportation Research and Artificial Intelligence Laboratory (M-TRAIL). Before joining UMD, he was an Assistant Professor at the University of Utah. His current research mainly focuses on CAV, artificial intelligence (AI) for transportation, and traffic safety. During the past six years, he has been leading over 30 projects, as PI or Co-PI, and the majority of those are funded by the US Department of Transportation (USDOT), Federal Highway Administration (FHWA), Department of Energy (DOE), National Science Foundation (NSF), Maryland Department of Transportation State Highway Administration (MDOT SHA), and Utah Department of Transportation (UDOT). He is an active member of two TRB committees (ACP 25 and AMR 20) and the secretary of the ASCE AI for Transportation committee.

Lightning Round Updates - Companies filing Expression of Interest for MD CAV

Company	Contact	Brief Description
<p>Lantern Vision Systems www.lanternlabs.com/ https://www.roadzarmor.com/</p>	<p>Peter Carnes Division President 21525 Ridgetop Circle Suite 180 Sterling, VA 20166 peter.carnes@lanternlabs.com 240-988-5848</p> 	<p>Lantern Vision Systems is an engineering company dedicated to advancing safety using state of the art engineering technologies. The ROADZ Armor product uses AI to process sensor data, primarily video, into actionable indicators for crash avoidance and warning. ROADZ stands for Roadside Active Defense Zone. Why active defense? Current safety best practices employ passive methods such as high-visibility gear, cones, and signage, to mitigate damage to workers, drivers and equipment, but active defense employs pro-active methods to drive the best outcome: an incident avoided. With any warning system, false alarms reduce effectiveness and risk desensitization to important alarms. Lantern uses advanced engineering to increase precision and reduce false alarms. When a warning is issued the system records the event for future training so that performance can be improved iteratively and continually. Units are currently deployed for rolling operations such as paint striping, cold patch repairs, and sweeping. Dynamic stationary work zone functionality such as Emergency Response Vehicles and temporary road maintenance are part of the upcoming version.</p>
<p>IT Curves www.ITCurves.net</p>	<p>Joshua Thomas Director of Sales and Marketing 8201 Snouffer School Rd Gaithersburg, MD 20879 jthomas@itcurves.net 301-208-2222</p> 	<p>ITCURVES develops Intelligent Transportation System (ITS) for Automation of Transit and Transportation processes. IT Curves' ITS is available for dispatching by ride sources such as Transits, Microtransit, Non-Emergency Medical Transportation, and the TNCs. IT Curves system covers the life cycle of travel and travel planning for passengers all online via a feature rich Riders Interactivity Suite of products. Some of our ITS subsystems includes Smart Phone app, call center reservation, dashboards for vehicle communication, and onboarding technology within the automated vehicle for rider onboard and offboarding, including wayfinding and curb management technology.</p>
<p>Via https://ridewithvia.com/</p>	<p>Aparna Paladugu Director of Public Policy aparna.paladugu@ridewithvia.com hvia.com</p> 	<p>Via is the world's leading provider of public mobility technology solutions, including autonomous mobility, ADA paratransit software systems, and demand-response transit. We configure our system to serve our partner's goals while bringing our global expertise to bear on their local challenges. Our vehicle-agnostic platform has proven to be the most reliable, comprehensive, and effective solution for deploying autonomous demand-response transit. Leveraging our best-in-class TransitTech platform — provided to 600 communities across 40 countries and 100 million rides — we successfully design, deploy, and operate AVs as on-demand public transit services. Via is the only mobility company with direct experience deploying AVs across a variety of vehicle form factors, geographies, and transit use cases to provide tens of thousands of autonomous mass transit rides around the world. This footprint includes the U.S. (CA, NV, MI, MN, TX, AZ), Germany, Australia, and the Middle East.</p> <p>Via partners with the City of Annapolis and Montgomery County RideOn for microtransit (non AVs), and various entities across the state utilize Via's transit planning software.</p>

Questions?

Email: CAVMaryland@mdot.maryland.gov