ITS MICHIGAN

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Intelligent Transportation Society

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2019 Annual Meeting





WEDNESDAY, SEPTEMBER 25TH

8:00 AM	Registration and Contintental Breakfast Exhibit Hall Opens		
8:30 AM	Conference Steve Verkest, Managing Partner/Director of Operations, Integral Blue, President, ITS MI		
8:40 AM	Welcoming Remarks Rose Bellanca, President & CEO, Washtenaw Community College		
8:45 AM	Keynote Speaker: Paul Ajegba, Director, MDOT		
9:30 AM	Panel 1: Education, Training and Workforce DevelopmentEducation and Professional Development are critical to successful deployment of Connected and AutonomousVehicle technologies in industry. The need exists for both engineers as well as skilled technicians in productdevelopment and customer service processes. This panel will focus on how educators are providing careerpathway solutions for talent that meet industry demanded skills and competencies.Moderator:Yousuf Taufiq, Central Region Traffic Manager, WSPPanelists:Matt Gibb, Chairman, The Next EducationRose Bellanca, President & CEO, Washtenaw Community CollegeJessica Robinson, Executive Director, Michigan Mobility InstituteBarb Land, Executive Director, Square One		
10:30 AM	Break and Networking Opportunity Student Poster Session Opens		
11:00 AM	Panel 2: Smart City Deployment in MichiganMichigan is an early adopter of smart city technology. There are several "pockets" of innovation. Each panelist will discuss how smart city technology is being deployed in their areas. A discussion will ensue on how these cities can leverage each other to become one connected Michigan.Moderator:Debby Bezzina, CCAT Managing Director, University of Michigan Craig Hupy, Traffic Engineer, City of Ann Arbor Josh Naramore, Mobile GR Director, City of Grand Rapids Dayo Akinyemi, Deputy Director, Department of Public Works - Detroit John Abraham, Director of Traffic and Operations, Macomb County		

1:00 PM	Panel 3: Legal, Liability, and Insurance: Key Remaining Barriers for CV's and CAV's As the technology and business models around CVs and CAVs continue to advance, significant questions remain around the legal, liability, and insurance frameworks for these vehicles. Legal experts will discuss the current federal and state regulatory landscape, the liability risks, and the future of the insurance industry as they relate to CVs and CAVs. Hear how these issues are impacting business decisions around the deployment			
	of these cutting Moderator: Panelists:	edge technologies. Bryce Pilz, Director of Licensing, University of Michigan Thomas Branigan, Managing Partner, Bowman and Brooke Lindsay Miller, Broadband & Telecommunications Attorney, Ice Miller John Muhs, Associate, Warner Norcross & Judd Amy Mass, Vice President, Counsel - Office of General Counsel, Hanover		
2:00 PM	Break and Networking Opportunity Student Poster Session Opens			
2:30 PM	 Panel 4: TSMO - Safety Initiatives and Operations & Maintenance The Michigan Department of Transportation (MDOT) works to maintain our roads, but we also work to make the roads safer with less congestion. Through our Transportation Systems Management and operations (TSMO) program, we are adding advanced technologies and partnerships to our traditional practices - from constuction clearing crashes to plowing snow - increasing mobility, reliability and safety along the way. This panel will discuss the safety initiatives being deployed through the TSMO program including safer construction zones, smarter traffic signal controllers, and others. Moderator: Collin Castle, ITS Program Manager, MDOT Mark Geib, Division Administrator, MDOT Jeff Feeney, ITS and Traffic Section Manager, HNTB John Abraham, Director of Traffic and Operations, Macomb County Matt Klawon, Manager, ITS and Traffic Engineering Services, AECOM 			
3:30 PM	Panel 5: Innovations Transforming our Transportation NetworksVehicle and infrastructure connectivity are changing the way personally owned vehicles and mobility servicesoperate in our communities. This panel conversation will highlight emerging technologies with a focus on thepotential for V2X communication. Join us for a discussion that explores the opportunities, challenges, and riskahead in an increasingly connected transportation network.Moderator:Chris Thomas, Co-Founder, Detroit Mobility LabPanelists:Steve Remias, Assistant Professor, Wayne State University Cory Hohs, CEO & Co-Founder, HAAS Alert Tim Johnson, Director, Sprint Elise Feldpausch, Connected Vehicle Specialist, MDOT			
4:30 PM	Closing Remarks Steve Verkest, Managing Partner/Director of Operations, Integral Blue, President, ITS MI			
5:30 PM	Exhibit Hall C	Exhibit Hall Closes		



THURSDAY, SEPTEMBER 26TH

- 8:00 AM Registration and Contintental Breakfast Exhibit Hall Opens
- 8:45 AM Keynote Speaker: Mike Noblett, President & CEO, American Center for Mobility
- 9:30 AM Panel 1: Michigan CAV Test Beds

Michigan Testbeds are leading the way in technological advances and partnerships. This session will showcase and highlight the success, collaboration, and future expectations around CAV research and testing in Michigan.

Moderator:Kirk T. Steudle, Senior Vice President, EconolitePanelists:Greg McGuire, Associate Director, McityMark Chaput, COO, American Center for MobilityCraig Hoff, Dean - College of Engineering, Kettering UniversityJohn Verboncoeur, Associate Dean for Research, Michigan State University

10:30 AM Break and Networking Opportunity Student Poster Session Opens

11:00 AM Panel 2: Cybersecurity

Cybersecurity is an increasingly important aspect of automotive systems. This panel will explore security and privacy aspects of V2X communications, security of road-side units and SCMS, as well as security of automated vehicles. We will cover security concerns of future technologies, how we can properly test security and mitigate vulnerabilities, and how stakeholders can better collaborate.

Moderator:Dr. André Weimerskirch, VP - Cybersecurity and Functional Safety, LearPanelists:Michael Venus, Global Product Manager, Siemens
Benedikt Brecht, Senior IT Engineering Manager, Volkswagen
Z. Morley Mao, Professor, Univerity of Michigan
Matt Carpenter, Principal Researcher, GRIMM

- **12:00 PM** Lunch and Presentation of Student Competition Awards
- 1:00 PM Closing Remarks Steve Verkest, Managing Parnter/Director of Operations, Integral Blue, President, ITS MI Exhibit Hall Closes
- 1:15 PM Technical Tour of American Center for Mobility (ACM)



ACM TECHNOLOGY DEMONSTRATION



Demo 1 - GST/Pedal Robot Demonstration

ACM will be demonstrating the latest in CAV testing technologies, utilizing high precision, path following robot. These methods are being implemented to test CAV technology to its limits in safe and highly repeatable fashion that provides quantifiable performance measurement to assess in technology maturity and development readiness.



Demo 2 - Vulnerable Road User & Wrong-Way Driver Detection Demonstration

Bosch Security and Safety Systems and Derq are partnering to demonstrate how a combination of video analytics and V2X technology enables intelligent devices that alert road users to safety risks and deliver valuable data for highway and urban infrastructure planning. Bosch IP cameras have built-in incident detection for stopped vehicles, objects, or pedestrians in the road, vehicles traveling the wrong way, and more. Derq's edge platform will also use the Bosch IP cameras' raw feeds as input to its machine learning algorithms that can detect and track vulnerable road users, predict their intended trajectories in real time and identify potential crashes or collisions that could result. This combination of Derq's algorithms and feeds from Bosch IP cameras enables Derq's edge platform to trigger V2X messages that provide invehicle alerts to warn drivers of dangerous situations that require attention. Derq will also be providing the on-board vehicle technology that processes the V2X messages and displays the alerts to drivers. In addition, Bosch and Derq will both show how real-time data on pedestrian, bicycle, and vehicle counts, average speed and direction, and road occupancy can fuel data-driven decision making for safer and more efficient roadways.



Demo 3 - V2V & V2I Demonstration

The UMTRI van and Toyota Avalon are each equipped with a Danlaw aftermarket safety device (ASD). The ASDs are broadcasting a basic safety message (BSM) which includes the vehicle's location (latitude and longitude coordinates), heading and speed at ten times per second. BSMs are broadcast in a 300 m radius. During the connected vehicle demonstrations, these vehicles will be communicating wirelessly with each other as well as with an infrastructure device. The following warnings will be demonstrated: Forward Collision Warning (FCW): The forward collision warning function provides drivers with alerts that assist them in avoiding or reducing the severity of collisions between the front of their vehicle (host vehicle) and another vehicle (lead vehicle). Emergency Electronic Braking Light (EEBL): The emergency electronic brake light function warns the driver when a vehicle ahead is panic braking. The lead vehicle must be in the same direction of travel but it may be in an adjacent lane. Curve Speed Warning (CSW): The curve speed warning function provides the driver with alerts that assist them in avoiding or reducing the severity of run off road accidents as a result of traversing a curve at too high a speed. Information about upcoming curves is broadcast from a roadside unit (RSU) via the traveler information message (TIM). Work Zone Warning: The work zone warning alerts drivers to an upcoming work zone and also provide guidance about vehicle speed if a driver is traveling at too great a speed. The TIM is broadcast from an RSU near the work zone.



Demo 4 - V2I Demonstration

The Siemens Demo will demonstrate communication between the Siemens RSUs (road side unit) and the Siemens OBU (on board unit). As you enter the 6X6 intersection, the OBU will receive SPAT (signal, phase and timing) from the traffic controller. You will see the signal status on the OBU as your vehicle approaches the intersection. You will leave the intersection and enter the track and as you approach the overpass the OBU will receive a BSM (basic safety message) warning of possible icy conditions. The Siemens RSU is Omniair Certified and future proofed containing Dual DSRC, Wi-Fi, Bluetooth, GPS and cell communication. The Siemens OBU is built by SIRIUS. It is multi-functual providing clear audio and visual communications.



Innovative Vehicle Design Project & Student Built Autonomous Vehicle Demonstration

Students from Williamston High School in Williamston MI will demonstrate their Innovative Vehicle Design project. These students, a part of the Square One Education Network, built a light-weighted electric vehicle that addresses a parking challenge with an Advanced Driver Assist Solution! Students from Roseville High School in Roseville MI will demonstrate their Autonomous Innovative Vehicle Design project, developed for the Square One Education Network's Annual Challenge Competition. The mission is to adapt a toddler Power Wheels Jeep into an autonomous vehicle capable of performing various tasks. The Square One Education Network (Square One) is partnering with ITS World Congress 2020 to provide more opportunities for high school students to explore autonomous and connected vehicle technologies and career paths through the National Immersion program. Square One Education Network is a non-profit educational organization focused on providing hands on STEM experiences for K-12 students and teachers, inspiring future college and career pathways.



AV & ADAS Simulator

Siemens PLM showcases the digital twin during a live demonstration of the Validation and Verification Framework for AV and ADAS with closed-loop simulation and introducing mixed reality on the ACM Testing Facility.



Student Built Connected Vehicle

Washtenaw Community College (WCC) will be demonstrating their student built connected vehicle. A sassy, red Polaris Slingshot equipped with smart car technology and customized using advanced manufacturing applications was modified in the college's advanced manufacturing labs by a team of automotive service and motorcycle program faculty, staff and students. Each modification represented a different skill or technology being taught on campus. Sections of WCC's vehicle were customized with lightweighting carbon fiber materials and 3-D printed parts. It was also equipped with front and side LiDAR object detection sensors. Other equipment includes a dedicated short-range communications (DSRC) system capable of sending and receiving V2X basic safety messages between vehicles, traffic infrastructure and pedestrians. Rounding out the technology was a bird's-eye-view camera that allows for a 360-degree view of the area surrounding the vehicle.

<u>Electrification</u>

Demonstrated by Hyundai America Technical Center, Inc.



John Abraham is the Director of Traffic and Operations, Macomb County Michigan. The objective of safe and efficient mobility for all Macomb County motorists, we constantly look for the best ideas to achieve our objective. As OEMs and suppliers advance with connected vehicle technologies for the vehicle, Macomb County has been steadily preparing for connected vehicles for the past 10 years. By planning and implementing a centralized traffic and communications center (COMTEC), collocated with 911 emergency dispatch and information technology services for the entire county, Macomb has created an environment poised to maximize V21 technology. Motivated by the goal of increased safety, the team is working on an aggressive Connected Vehicle program to significantly reduce annual number of vehicle crashes in Macomb County.



Paul C. Ajegba has 28 years of experience with the Michigan Department of Transportation and was appointed as director on Jan. 1, 2019. He previously served for three months as Metro Region engineer and before that as University Region engineer. During his seven years in the University Region, Ajegba oversaw his team's involvement in the planning, design and construction of several major projects, including the US-23 Flex Route - a project nominated for the America's Transportation Award, landing among the top 12 national finalists. Other notable projects include the I-94 rehabilitation project in Ann Arbor/Jackson, the I-96/US-23 interchange, and the I-75 freeway project. Ajegba holds a Bachelor of Science in civil engineering from Prairie View A&M University and a master's degree in construction engineering from the University of Michigan. He is a licensed professional engineer in Michigan.



Oladayo (Dayo) Akinyemi is the Deputy Director of the Department of Public Works at the City of Detroit where oversees the delivery of infrastructure, environmental and transportation services for residents and visitors of the City. Dayo previously worked at MDOT where he led a team professionals in designing, constructing and operating Intelligent Transportation Systems and Traffic Incident Management at the Southeast Michigan Transportation Operations Center, Detroit. A leader of thought in the local, regional and national stage, he was a member of the Regional Traffic Incident Management coordination committee, Governor's Advisory Council on Traffic Incident Management, and a strategic planning committee on Traffic Incident Management for USDOT. A Licensed Professional Engineer in the State of Michigan, Dayo completed the Operations Academy Senior Management Program at the University of Maryland in 2014. He holds a Bachelor and a Master's Degree in Civil Engineering.



Dr. Rose B. Bellanca is the President and CEO of Washtenaw Community College in Ann Arbor, Mich. Dr. Bellanca has more than 20 years of executive leadership in higher education. Prior to coming to Washtenaw Community College, Dr. Bellanca was the President of Northwood University's West Palm Beach Campus, the President of St. Clair Community College and the Provost of Macomb Community College. She is the fourth president to lead Washtenaw Community College, since its inception in 1965. Dr. Bellanca has a passion for teaching, student learning, professional development and organizational growth. She is an advocate for partnerships and innovative programs that provide education, enrichment and economic development opportunities to the community she serves. With executive leadership experience in higher education, K-12 and business and industry, she excels in strategic planning and implementation, leadership and team development, public and community relations, public and private fund raising, personnel and labor relations, and teaching, learning pedagogy and curriculum development with a focus on student success, retention and persistence.



Debby Bezzina holds a BS in electrical engineering, an MBA, and program management professional certification (PMP). Ms. Bezzina has over thirty years of experience in the automotive industry, and has served as a program manager for eighteen years. She served as Visteon's program manager on two USDOT-funded field operational tests of automotive advanced-safety-systems research (road departure crash warning FOT and integrated vehicle based safety systems FOT). Prior to Visteon, Debby worked at General Motors on vehicle control modules and audio in the Truck Group, and Ford Motor Company in the Engine Design Division. She was the senior program manager for the Safety Pilot Model Deployment and at present is the senior program manager for the Ann Arbor Connected Vehicle Test Environment at UMTRI. Concurrently, she is the Connected Working Group lead for Mcity and the Managing Director of the Center for Connected and Automated Transportation.



Tom Branigan is a trial lawyer and the current Managing Partner of Bowman and Brooke's Detroit office. He has previously served as an elected member of the firm's Executive Committee and as Chair of the firm's Policy Committee. Through his national trial practice, he has appeared as trial or lead counsel in over 30 states, and he has obtained major verdicts and judgments for automotive OEMs and suppliers. Tom is routinely retained as lead counsel in "bet the company" cases, and he has been counsel in many of the largest class action and MDL matters in history. He is listed in the Best Lawyers in America for Product Liability and considered by many to be "one of America's leading lawyers for the auto industry." His clients come from across the automotive industry and most of the world's major OEMs have retained him and his firm over his 30+ years of practice. Lately, his focus has been on issues related to autonomous vehicle technology that is transforming mobility.



Benedikt Brecht started his career in the automotive industry at Volkswagen in 2010. He was involved in projects of Volkswagen AG Group Research before moving to Product Development. Since 2013, he has been with Group IT as a Program Manager with the Volkswagens Connected Car Program. He was assigned to work in the U.S. with the Department of Safety Affairs and Advanced Research on Vehicle-to-X (V2X) communication in 2015. He was a Principal Investigator of the U.S. Department of Transportation-funded Crash Avoidance Metrics Partners Program involved in security topics for V2X communication. He helped design, build, and operate the V2X Security Credential Management System, which will likely be the largest security system ever deployed. Right now he is working in several standardization and industry organizations on V2X communication topics while at the same time advising Volkswagen Group brands with their ongoing and planned V2X deployments.



Matthew Carpenter is a Principal Security Researcher with GRIMM (SMFS, Inc.) in charge of their Critical Infrastructure team. Matthew's primary expertise is in reverse-engineering, vulnerability research, exploit weaponization, overall hacker techniques, developing training courseware, and teaching. He has enjoyed exploitation of hardware, software/firmware, radio and communications protocols, and today specializes primarily in the safety sectors such as automotive, aviation, ICS/SCADA, and Advanced Metering Infrastructure, as well as telecom, and traditional computing. Matthew is former vice-chair of UCAIUG AMI-SEC Task Force and SG Security, and lead the Vulnerabilities team for NIST Cyber Security Coordination Task Force developing NISTIR-7628 and Cyber Physical Systems (CPS). He is a former member of the Advanced Security Acceleration Project for the Smart Grid (ASAP-SG), and was the Red-team lead for Advanced Security Acceleration Project (AMI-SEC/ASAP). Additionally, he has ongoing involvement with security organizations in the Michigan area, including the Michigan Cyber Range, the Michigan State Police, and the West-Michigan Cybersecurity Consortium (WMCSC) where he has served as a Red Team Captain for their annual Red/Blue events for the past three years, and is a member of the Information Systems Security Association (ISSA) and InfraGard.



Collin Castle has worked in the Michigan Department of Transportation (MDOT) Intelligent Transportation Systems (ITS) Program Office for the past 12 years. He is currently serving as the MDOT ITS Program Manager responsible for the administration, support and oversight of the statewide ITS, Signals, Connected and Autonomous Vehicle program at MDOT. He is a graduate of Michigan State University with a Bachelor of Science (BS) in Civil Engineering with a focus on Transportation and is registered Professional Engineer in the State of Michigan.



Mark Chaput has been on staff at the American Center for Mobility (ACM) since January 2017, where he was on loan as a Michigan DOT employee to lead the build out of ACM&'s World Class CAV Test Facility. After 31 ½ years at Michigan Department of Transportation (MDOT), Mark retired in August of 2018 and joined ACM as Vice President of Facility Operations and Construction. In January of 2019 Mark was promoted to Chief Operating Officer. Mark's responsibilities include managing the day-to-day business operations, overseeing the ACM Facility Operations, as well as the design and construction of the remaining facility build-out. Mark has a Bachelor of Science in Civil Engineering (Construction) from Lawrence Institute of Technology, in Southfield, Michigan.



Jeff Feeney is the ITS and Traffic Section Manager for HNTB's Michigan office. His focus is improving mobility and safety through transportation planning, active traffic management, ITS, connected vehicles, and emerging transportation technologies. Jeff is a graduate of Michigan State University in Civil Engineering and has an MBA from Virginia Commonwealth University.







Elise Feldpausch ensures the continued development of Michigan's statewide connected vehicle program for Michigan Department of Transportation's statewide ITS Program Office. This program is where statewide project and device consistency operate hand in hand with the assurance that Michigan continues to remain at the forefront of the national CAV conversation. Included in this is the management of Michigan's Statewide Data Use Analysis and Processing contract which acts as the connected vehicle back-office system that collects, stores, and processes wide-ranging real-time transportation data to support an environment for MDOT asset management and safety application development. Working with the Governor's office, MEDC's Planet M Program and MDOT, Elise is helming the NAIAS 2020 Michigan Mobility Challenge. The NAIAS Challenge calls upon industry innovators to propose new and dynamic technology deployments that embody how autonomous vehicle (AV) technology can transform how we live, work, and play by bringing cutting-edge autonomous vehicle technology to the City of Detroit. Elise began her career at the ITS Program Office in 2012 with a focus on post construction asset management including, software system framework development, statewide ITS device and network maintenance, and RWIS program development. Elise is a licensed professional engineer with the state of Michigan and is a graduate of Michigan State University where she received a Bachelor of Science Degree in Civil Engineering.

Mark Geib has over thirty years' experience in the transportation industry. He has worked as an engineer in construction, maintenance, and operations, becoming a manager in several of the Michigan Department of Transportation's (MDOT) Transportation Service Centers and Michigan's Intelligent Transportation System Center. Currently, Mark is the Division Administrator for MDOT's Transportation Systems Management Operations (TSMO) team, consisting of approximately 100 employees. In this role, he is responsible for supporting statewide maintenance and operations of Michigan's Interstate and trunk lines. Mark's experience includes associations with eAtlantic Engineering LLC and Gulf Coast Engineering LLC in the commercial and residential building industries in Florida. He graduated with a Bachelor of Science degree in Civil Engineering in 1984 and is a Professional Engineer in the states of Michigan and Florida.

Matthew Gibb has spent nearly three decades advising corporations, individuals and governments in the development and management of complex programs, initiatives and policy. His career in law and business has included work ranging from advanced communications to international business attraction. In 2011, Mr. Gibb was appointed Deputy Oakland County Executive overseeing all aspects of Economic Development and Community Affairs in Michigan's most affluent community. He was the principal leader of several initiatives including; Medical Main Street, Emerging Sectors, One Stop Ready, TECH248, the Connected Car Task Force, Elite40 and Oakland NEXT. In 2018 Mr. Gibb launched The NEXT Education, a company providing advanced training and upskilling in connected mobility, along with Blue Rhubarb, a consulting group focused on advising and connecting advanced mobility companies and regions on the pathways to deployment. Through an extensive personal network, he brings subject matter experts directly to organizational leadership. Mr. Gibb is a regular speaker on government's role in connected mobility and its infrastructure, including technical presentations in China, Spain and throughout the United States. His Leadership of Oakland County's CAV Task Force resulted in the State's first "Business Plan for Deployment". Mr. Gibb obtained a Bachelor of Arts from Alma College in 1990 and Juris Doctorate from University of Kentucky in 1993.



Dr. Craig J. Hoff is the Dean of the College of Engineering and Professor of Mechanical Engineering at Kettering University (formerly GMI) in Flint, Michigan. He has over 35 years in various teaching and administrative positions in higher education. He has taught undergraduate and graduate courses in energy systems and automotive engineering. His research focus is on sustainable mobility technologies including vehicle electrification and autonomous driving. He earned his Ph.D. in Mechanical Engineering from the University of Michigan – Ann Arbor, and his B.S. and M.S. in Mechanical Engineering from Michigan State University. He is a registered professional engineering in the state of Michigan.



Cory Hohs is the CEO of HAAS Alert - a safety service for First Responders and Government fleets that prevents collisions through embedded navigation and automotive alerting. Cory has over a decade of engineering and product management in spatial navigation systems for automotive and mobile technologies, the bulk of his career was at NAVTEQ/HERE Maps. After starting HAAS Alert, he is now Principal on multiple standards bodies for fleets and manufacturers associations, and has been working in the connected and autonomous vehicle space for First Responder and roadway fleet safety for 4 years. To date, HAAS Alert has sent 70,000,000 driver alerts and is live in over 70 cities with public safety vehicle communication projects with the Department of Homeland Security, NHTSA, State DOTs, as well as coming standard on multiple fleet manufacturers.

Craig Hupy is the Area Administrator for Public Services at the City of Ann Arbor. The Public Services Area is responsible for all municipal activities, which occur in Ann Arbor's road right of ways. Among the myriad of activities over seen are street design, street maintenance, traffic signs, traffic signals and control systems, fiber optic networks, radios and operation of municipal vehicles. Mr. Hupy is a registered professional engineer with multiple certifications from the Department of Environmental Quality. The staff of the Public Services Area has been part of "Connected Vehicle Services Pilot Model Deployment" and "Ann Arbor Connected Vehicle Test Environment" projects. Craig Hupy currently serves as the primary contact with University of Michigan Transportation Research Institute.



Tim Johnson has an extensive tenure leading IoT organizations across several industries. Currently, he the Vice President of IoT Business Development at Sprint, where he leads a team to grow Sprint's marketshare. He interfaces extensively with many of the Softbank portfolio companies, along with several municipalities across the country. He has held several leadership roles in sales and product development where he drove IoT Smart City Eco-system growth, including advanced transportation/mobility solutions. Previously, he also served as Sprint's Global business development manager where created a business unit focused on providing solutions for connected vehicles and vehicle to infrastruture for global automotive OEM manufacturers. Tim and his wife reside in the New York City area.

Matt Klawon is an experienced ITS and Traffic Engineer providing consulting services for the planning, design, operations and maintenance of complex technology deployments throughout Michigan. He is actively engaged in applying emerging TSMO concepts that leverage emerging technologies, unique data applications and existing systems to enhance day-to-day operations and overall transportation system performance outcomes. He currently manages the AECOM Traffic/ITS Department for a 22-state region ranging from the Midwest to the Southwest; he is a graduate of Michigan State University and former manager for the Macomb County Department of Roads Traffic/ITS Department.



Barb Land is the Executive Director of the Square One Education Network, a Michigan based non-profit educational organization reaching nearly 12,000 students annually. Here, Barb works collaboratively with K-12 students, teachers and industry experts to support a great Network of people as they Mobilize STEM (science, technology, engineering and math). Square One is the leader in developing hands-on and real-world Automotive Mobility STEM content for teachers who inspire students to fill talent needs in the Automotive Mobility Industry. Reaching students early and connecting them with industry will narrow the skills gap and develop the technical talent needed to drive the economy forward. Consumer need, safety and trust are essential pillars of any Mobility plan and Square One's projects in Autonomous, Connected and Cyber Security technologies help this new generation imagine what could be.



Z. Morley Mao is a Professor at the University of Michigan. She is a recipient of the Sloan Fellowship, the NSF CAREER Award, the ARMY YIP Award, and an IBM Faculty Award. Her other honors include the Morris Wellman Faculty Development Professor, EECS Achievement Award, College of Engineering George J. Huebner, Jr. Research Excellence Award at University of Michigan. Her current research focus encompasses software-defined networking, AV security, network security, next-generation Internet protocols, and mobile systems.



Amy Mass joined The Hanover Insurance group in 2003, and currently serves as Vice President and Counsel for The Hanover Insurance Group in the Office of General Counsel in Howell, Michigan. She is responsible for Government Affairs, Regulatory Matters, and Legal Support for the West Region, which includes Michigan, the company's largest state. In 2017, Amy was appointed by Governor Rick Snyder to serve as the Insurance Industry Representative to the Michigan Council on Future Mobility, which makes public policy recommendations to the Legislature and Administration to position Michigan as a leader in innovation on issues related to automated and connected vehicles and the Mobility Ecosystem. She was based in Columbus, Ohio and served The Hanover as the National Counsel for the Schools Program, Managing Attorney for the Ohio and Indiana Staff Counsel Offices, Senior Trial Attorney and Trial Attorney. Amy has been an Adjunct Professor of Dispute Resolution at Capital University Law School in Columbus, Ohio since 2004, teaching Negotiation, Mediation, and Arbitration. Amy is a frequent lecturer in the areas of Automated and Connected Vehicles, Insurance and the Future of Mobility, Negotiation, Mediation, and Women in Leadership among other topics, for organizations



Greg McGuire is responsible for the safe and smooth operation of the Mcity Test Facility, the University of Michigan's purpose-built proving ground for testing connected and automated vehicles and technologies. He also oversees Mcity's growing fleet of research vehicles. Prior to joining Mcity, McGuire spent twenty years designing and building tools to efficiently share resources and measure consumption, with a focus on mobility services and their intersection with our Internet-enabled society. He and his college roommate were the two engineers that built and scaled Zipcar. McGuire then went on to help found several mobility and data analytics startups before the lure of Mcity proved too great. An inveterate tinkerer, when he's not busy with Mcity projects he will likely be found fixing one of his kids' toys, brewing beer, or taking apart his car. McGuire has a Bachelor of Science degree in Biomedical Engineering (Computing / Imaging) from Case Western Reserve University.



Lindsay Miller is an attorney with the Public Affairs and Government Law Group at Ice Miller LLP. With over ten years of experience in broadband and telecommunications, Lindsay regularly advises public and private sector stakeholders on technology initiatives. This includes providing guidance and counseling to multi-sector leaders as they seek to develop and finance Smart City infrastructure, leverage the Internet of Things (IoT), and develop and implement policies to enable innovative technologies, such as connected/ autonomous vehicles (CAVs).



John Muhs has a multifaceted practice focused on corporate transactional and securities matters. He advises businesses of all sizes—from startups and emerging companies, to middle-market companies, to Fortune 500 companies—on matters of business formation and corporate governance; joint ventures, mergers, acquisitions and other strategic partnerships; raising capital from seed, angel and venture investors; and drafting and negotiating commercial contracts. Like the businesses of many of his clients, John's practice sits at the intersection of Detroit's automotive dominance and its entrepreneurial resurgence. He represents established automotive suppliers and newer entrants to the mobility industry alike in supply-chain contract negotiations with sub-suppliers and with OEM customers. John has specific expertise in navigating the emerging and rapidly changing legal, liability and regulatory issues surrounding connected and automated vehicle technology, and has advised clients on such issues in the context of product development and commercialization strategy decisions.



Josh Naramore is the Mobile GR Director for the City of Grand Rapids. The Mobile GR Department manages the City's on and off-street parking assets, regional traffic signal system, signage and traffic engineering. Josh has almost 15 years of experience in transportation planning working at the state, regional and local level. Prior to joining the City, he spent time in Cleveland, Ohio, Portland, Oregon and South Florida working on transportation.











Michael Noblett is president and chief executive officer of the American Center for Mobility (ACM), a not for profit, product development enterprise and proving ground for connected and autonomous vehicles. The innovation and testing facility for future mobility is located at Willow Run in Ypsilanti Township, Michigan. In his role as President and CEO, Mr. Noblett is responsible for the overall strategic and operational vision of the company. Appointed by the Center's Board of Directors in 2019, he is tasked with leading ACM's growth strategy, spearheading program innovation and economic development initiatives. Prior to joining ACM Michael served as a Global Solutions Executive for IBM's software group. Where he was charged with advancing business development, industry partnerships, and international standards to further the growth of the Smarter Transportation Systems market in support of IBM's Smarter Cities initiative. He brings a depth of fiduciary and visionary team building acumen having worked as Executive VP of business development for Connexis LLC; a green-field connected vehicle start-up. He spent nearly 20 years with General Motors Corporation and its subsidiary OnStar, where he also served as program manager for the Automotive Multimedia Interface Collaboration (AMI-C).

Bryce Pilz is Director of Licensing for the University of Michigan Office of Technology Transfer. UM is the country's largest public research university and last year launched 22 new startup companies, entered into 232 commercialization agreements, had 171 U.S. patents issued, and received 502 new invention reports. Recent UM startups include mobility companies May Mobility and Voxel51. Bryce also co-chairs the U-M's MCity Legal & Insurance Working Group and recently co-authored a major publication on autonomous and connected vehicles. Prior to assuming a leadership role at U-M Tech Transfer, Bryce was faculty at U-M Law School where he co-founded the Entrepreneurship Clinic and taught courses related to IP Strategy and Venture Capital. Bryce previously practiced law at Kirkland & Ellis LLP in the firm's intellectual property practice and clerked for the Hon. Amy J. St. Eve in the Northern District of Illinois.

Steve Remias is an assistant professor at Wayne State University in the Civil and Environmental Engineering Department. He has over 9 years of experience performing transportation operations research and data collection. Steve received a BS in Civil Engineering from Michigan State University, and a Masters and PhD in Civil and Environmental Engineering from Purdue University. He then transitioned to a full-time Transportation Engineer at the Joint Transportation Research Program (JTRP) at Purdue prior to joining Wayne State in 2015. Steve's research areas include probe vehicle data, traffic signal optimization, performance measurement, and using large data sets to solve transportation problems. His research utilizes innovative data collection techniques using modern technologies. His research has been recognized by numerous state and local agencies. His most recent projects include an implementation of signal performance measurements in Michigan, creating the Michigan Freeway Congestion and Mobility Report, using probe data to assess work zone performance nationwide, and the creation of an ITS lab at Wayne State University.

Jessica Robinson is Executive Director of the Michigan Mobility Institute where she works to accelerate the development of talent for the growing mobility industry. Starting in 2021, the Michigan Mobility Institute will offer the first-of-its-kind Master of Mobility program. The Institute is the first initiative of the Detroit Mobility Lab which she co-founded to focus on building the mobility talent infrastructure necessary to shape the sector's future within the City of Detroit. Jessica previously led the development of next-generation mobility efforts at Ford Smart Mobility where she was Director, City Solutions and at Zipcar where she held roles in growth, operations, and marketing across North America. Jessica's background in technology and innovation includes prior work launching startup accelerator programs at Techstars with industry-leading corporate partners. She is an active startup mentor and micro lender who invests in women entrepreneurs and business owners in Detroit.

Kirk T. Steudle is Senior Vice President of Econolite Systems, focused on excellence in Intelligent Transportation System design, deployment, operations and maintenance, including its subsidiary CAVita. Mr. Steudle retired from State of Michigan service in October of 2018 after a 31 year career and served as Director of the Michigan Department of Transportation (MDOT) from 2006-2018. He also served as the Interim President and CEO of the American Center for Mobility from August 2018 until March 2019. Steudle is a nationally recognized leader in the development of connected vehicle technology, served as chair for the Intelligent Transportation Society of America Board of Directors and a member of its Program Advisory Committee to the USDOT. His resume includes chairing the Transportation Research Board executive committee, serving as the 2011-2012 president to the American Association of State Highway and Transportation Officials (AASHTO). Steudle is a graduate of Lawrence Technological University, where he received a Bachelor of Science Degree in Construction Engineering. He also serves on the College of Engineering Advisory Board and was inducted into its Hall of Fame in 2012.













Yousuf Taufiq, PE, PMP is Vice President and the Central Region Traffic & ITS Engineering Manager for WSP USA in Detroit, Michigan. He holds a BS in electrical engineering from the University of Michigan -Dearborn and an executive MBA from Michigan State University. He is a licensed professional engineer (PE) in Michigan, Illinois, Ohio and Indiana. Taufiq leads the WSP Traffic and ITS practice for the Midwest market, providing project management expertise to public sector clients such as Michigan DOT and county road agencies (Oakland, Macomb) to help improve safety, operations and mobility of the transportation system in Southeast Michigan. Taufiq is the past President/Chair of the Intelligent Transportation Society (ITS) of Michigan and is the current Chair of the Talent and Workforce Development Committee for ITS Michigan. He is also the Secretary and Education Committee Chair for the Architecture, Construction, and Engineering (ACE) Mentoring program in Michigan.

Chris Thomas is a Co-Founder of the Detroit Mobility Lab, an entity dedicated to helping Detroit become one of the world's foremost future mobility ecosystems. Prior to the Detroit Mobility Lab he co-founded Fontinalis Partners. While at Fontinalis Chris served as a Board Member for nuTonomy and Karamba Security and as a Board Observer at Ouster, Life360, and SmartKargo. Prior to Fontinalis Chris served in the U.S. Army as a Communications Officer in the U.S. and Iraq. Additionally, Chris advises a number of mobility startups around the globe, serves as an Executive in Residence for Mobility at the Quicken Loans Community Fund, acts as a Senior Advisor to the COMMIT Foundation, and is a member of the Global Cleantech 100 expert panel. Chris has previously served as the Chairman of Read to a Child, a national children's literacy and mentoring nonprofit, and as a member of the World Economic Forum's Global Agenda Council on Personal Transportation Systems. Chris earned his Master's degree in Business Administration from the Yale School of Management. While at Yale he served on the Honor Committee and graduated with distinction in former Prime Minister Tony Blair's seminar on Faith and Globalization. He holds a Bachelor of Arts degree in both Economics and International Relations from Michigan State University.

Michael Venus is the Global Product Manager for the Connected Vehicle product line of Siemens ITS. He holds a degree in electrical engineering from the university of Applied Sciences Leipzig and has over 10 years experience in software and product development in the automotive and ITS industry. Over the last 6 years he has been involved in several large scale Connected Vehicle deployments across Europe and the United States. Most recently he has been involved as the project lead for the Siemens Roadside Unit and Connected Vehicle Management system in the Tampa and NYC CV pilot projects.

John P. Verboncoeur received a B.S. in Engineering Science from the University of Florida, M.S. and Ph.D. in Nuclear Engineering from the University of California-Berkeley, holding the DOE Magnetic Fusion Energy Technology Fellowship. In 2011, he was appointed Professor of Electrical and Computer Engineering at Michigan State University, and added an appointment as Professor of Computational Mathematics, Science, and Engineering in 2015. His research interests are in theoretical and computational plasma physics, with a broad range of applications spanning low temperature plasmas for lighting, thrusters and materials processing to hot plasmas for fusion, from ultra-cold plasmas to particle accelerators, from beams to pulsed power, from intense kinetic nonequilibrium plasmas to high power microwaves. He was Past President of the IEEE Nuclear and Plasma Sciences Society, a member of the IEEE TAB Management Committee, on the IEEE Board of Directors, and serves on the US Department of Energy Fusion Energy Sciences Advisory Committee. He is a fellow of the IEEE, and was awarded the IEEE NPSS Richard F. Shea Distinguished Member Award in 2018, and the Plasma Sciences and Applications Committee Award in 2019.

Steve Verkest is a founding member, managing partner, and executive vice president of Integral Blue (IB). IB is a Michigan-based Intelligent Transportation Systems (ITS) firm that provides professional and technical services that include system design, engineering, construction, integration and comprehensive maintenance services. He is a graduate of Wayne State University. During his career Mr. Verkest has performed engineering and construction planning and management, quality assurance and control, business development, and operational management. Steve has worked for a variety of clients in the field of technology that include automotive, manufacturing, local and state municipalities, and the transportation industry. He currently serves as the President of the Intelligent Transportation Society of Michigan's Board of Directors where he oversees the Board's Administrative and Finance Committee.

Dr. André Weimerskirch is Vice President Cybersecurity and Functional Safety at Lear Corporation. Before that, André established the transportation cyber security group at the University of Michigan Transportation Research Institute (UMTRI), and co-founded the embedded systems security company ESCRYPT which was sold to Bosch in 2012. André is active in all areas of automotive and transportation cybersecurity and privacy, he is a main designer of the American vehicle-to-vehicle SCMS security system, published numerous articles in automotive and embedded cyber security, is co-founder of the American workshop on embedded security in cars (escar USA), and chairs the Mcity cybersecurity working group at the University of Michigan.

