



COMMUNITY COLLEGE WORKSHOP: SESSION 3

U.S. DOT

INTELLIGENT TRANSPORTATION SYSTEMS JOINT PROGRAM OFFICE (ITS JPO)

PROGRAM CAPACITY BUILDING (PCB) TEAM

WEDNESDAY, JULY 8, 1:00-2:30PM ET





FRONT RANGE COMMUNITY COLLEGE

SUSAN BAILLARGEON
PROGRAM DIRECTOR



GENERAL SCHOOL INFORMATION

- Fort Collins, Colorado
- Student population size- 28,000 FRCC is the largest Community College in Colorado. For more FRCC Facts:

<https://www.frontrange.edu/about-frcc/facts-and-figures/fast-facts>

- *Larimer Campus*



OVERVIEW OF PROGRAM

- What was the transportation workforce need that this partnership was intended to address?
 - It was to address the need for qualified employees to promote within CDOT and the national public works community, as the current workforce retires.
- How was the partnership initiated?
 - Almost 5 years ago CDOT and the local PW directors started putting a plan together and brought it FRCC. Our vice-president, Dr. Jean Runyon, gave the green light, and with the program took shape, received accreditation, and launched in August of 2019.
- Who led the effort at the Community College?
 - Dr. Jean Runyon (Vice President) and Dr. Nicholas Spezza (FRCC Dean of Instruction) and
- Who led the effort at the DOT/employer?
 - Kyle Lester (formerly CDOT Director of Maintenance) and Dr. Paul Woods (CDOT-Retired)



IMPLEMENTING THE PARTNERSHIP

- What steps did the school and employer take to implement the partnership?
 - Established an initial working group to design the program
 - Established an advisory committee to guide the work and maintain focus on the industry needs
 - Include as much industry provided training in the program and find ways for students to earn college credits for their knowledge
 - Create crosswalks to industry provided training that reduces costs for students
 - Promote industry provided training programs as a way to earn credits at no cost
- What stakeholders did you have to engage?
 - CDOT
 - Colorado Public Works community (APWA Colorado)
 - Colorado Local Technical Assistance Program (CLTAP)
 - Industry Training Providers (ex. ATSSA Traffic Control Supervisor Program crosswalks to out HWY 105- Traffic Control Course for 2 credits)
 - NLTAPA
 - State DOT's



CHALLENGES AND BARRIERS

- What challenges did you face in creating the partnership?
 - What would the program look like
 - What industry provided training would be included in the PLA process
 - Marketing
- How did you overcome them? Are there any remaining challenges?
 - Used what already existed (models for other AAS programs)
 - Student feedback
 - Staying in touch with the needs of the industry
 - Diligence

Remaining challenges:

- Marketing
- Keeping up with student requests for exams/crosswalks
- Keeping students informed of changes and improvements



BENEFITS OF THE PARTNERSHIP

- How has the partnership benefited the community college?
 - More students enrolled
 - Building our PLA process
 - Growing on-line learning
- How has the partnership benefited the employer?
 - Educated workforce
 - Qualified employees for promotion
 - Maximize benefit of employee on the job training
- Specific numbers – such as number of students in an ITS program, number of graduates employed by the DOT, etc. – would be helpful if they are available.
 - 44 students have completed the HWY 101- Introduction course
 - Graduates expected by Fall 2021
 - 6 states and 3 State DOT's have students in the program
 - Several counties and municipalities in Colorado, Texas, and North Carolina also have students attending



LESSONS LEARNED

- What went well in forming the partnership?
- What do you plan to do differently going forward?
- What advice do you have for other Community Colleges or DOTs that are interested in forming a partnership?



CONTACT INFORMATION

- Name- Susan Baillargeon
- Title- Program Director
- School/agency name- Front Range Community College
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- Phone number 970-204-8175





VDOT & COMMUNITY COLLEGE PARTNERSHIPS

Building a Workforce Together

Angela Parsley
Jameo Pollock, Ed.D.

July 2020

Problems we faced



- **Aging demographic for our land surveyors & a long training period**
- **Lack of robust land surveyor programs in Virginia**
- **Change in student participation for Materials Certification classes**
 - **From 80% VDOT employees to 20% VDOT employees**
- **Costs associated with training and administration of the classes**

How We Partnered with Community Colleges

Created a Land Surveyor Apprenticeship Program with Tidewater CC

- Contacted the Virginia Department of Professional and Occupational Regulation
- Found one land surveyor career study certification (1 year) offered at Tidewater CC
- Worked together to develop a 2 year apprenticeship program
 - Online training through Tidewater CC
 - In-person training at VDOT
 - Program manager at VDOT & Program Manager for Apprenticeships at the CC

Lessons Learned

- Recruiting participants
 - Advertised to students who completed the 1 year study certificate program
- Payment agreement so VDOT would get the bill versus the students
- A special math assessment was created for pre-calculus skills
- True partnership with the CC assisting students with course needs, tutors, etc.



How We Partner with Community Colleges Cont.

Moved Materials Certification classes to CCWA schools (partnership between Reynolds CC and John Tyler CC) & Germanna CC

- Created a Construction Inspector Apprenticeship Program
- Partnership initiated by industry (VA Asphalt Association)
- VDOT gave all of the class information to the CC's
- All training provided at the community colleges or online



Lessons Learned

- **Different registration processes & payment methods for the two colleges**
 - PO acceptance wasn't consistent
 - Students registered individually versus as a group
 - Developed consistent pricing for classes
- **Finding qualified instructors was a challenge**
 - VDOT taught all classes the 1st year at the colleges & supported ~50% the 2nd year
 - A good relationship with VTCA & the Virginia Asphalt Association helped one college find instructors
- **Location issues**
 - At first required students to go to a specific college that may be far away
 - Worked on offering regional courses closer to VDOT locations & businesses in the state
- **Online class hiccups**
 - Live streamed classes were not successful (bandwidth issues and video quality was poor)
 - Ended up having the courses professionally produced and the videos put onto a DVD
 - Still needed SMEs in the classroom to answer students' technical questions & proctor exams
- **Partnering with private industry**
 - Get feedback early and frequently
 - Communicate class changes via multiple channels (VDOT site, VTCA, & CC's)
 - Try to avoid scheduling classes during peak construction periods

Next Steps

- Continue to assess the quality of instruction in the two programs
- Offer more online training & remote assessment options
- Look at a 4-5 year Land Surveyor program with a college or university
 - Current offering is a 2 year Land Surveyor Technician program





WORKFORCE INTELLIGENCE NETWORK (WIN)

MICHELE URESTE
EXECUTIVE DIRECTOR



WORKFORCE INTELLIGENCE NETWORK

DATA. ENGAGEMENT. SOLUTIONS.

WIN WORKFORCE
INTELLIGENCE
NETWORK



MDOT GRANT: 2019-2021

- Center for Automotive Research Awarded, WIN Subrecipient to **Conduct Research and Develop Transportation Workforce Strategy**
- Based upon a Brookings Institute article released on April 16, 2019 titled *Aging and in Need of Attention: America's Infrastructure and its 17 Million Workers,* physical **infrastructure systems are aging as well as the workers who design, construct, operate, and oversee these systems**



MDOT GRANT: 2019 - 2021

- **CAR Tasks 1-3:** State of the Practice Review for Transformative Technologies; Ideal Core Competencies and Organizational Structure; and Implementation Plan
- **WIN Task 4:** IHE Asset Mapping & Training Materials for Current and Future Workforce
- **WIN Task 5:** MWA Recruitment Strategies for Acquisition of Necessary Workforce



TRANSFORMATIVE TECHNOLOGY

- Internet of Things (IoT), Civil Integrated Management (CIM), Wireless Communications, 3D design and printing, Intelligent Transportation System (e.g., weather sensors, CCTV, roadside units, dynamic messaging signs, work zone warning systems), Smart Devices (e.g., smart signals, smart LED lights, smart sign panels, etc.), Big data analytics, Artificial Intelligence, and Machine Learning, Data Management Systems (e.g., Data Use Analysis and Processing Transportation Asset Management System, Advanced Traffic Management System), Connected and Automated Vehicles, Light Detection and Ranging (LiDAR), Unmanned Aerial Vehicles (UAVs), Survey Tech, and Infrared and 3D Imaging Systems



RAPIDSKILLS GENERATOR

- **Leveraging RapidSkills Generator funded by DOL AAI Grant**
- **To Assist with Developing Occupational Skills Needs for Existing and Future Transportation Workers In Response to Emerging Technology**



RAPIDSKILLS GENERATOR

- **RapidSkillsGenerator.org An Open-Source and Interactive Repository of Occupational Frameworks**
 - **Launching July 2020**
- * **Online Database of Skills Lists for High Demand Occupations**
 - * **Aligns Skills Lists to Apprenticeable Occupations by occupation or industry sector**
- * **Employers are Provided Access to Add, Remove, and Modify Competency Frameworks to Create an Apprenticeship Program**
 - **Feature to Share Skills Lists with HR**
- **Enables Curriculum Development Through Industry Skills Needs Identification – Keeps Pace with Tech Advancement**
 - **Piloted Nationally**



IHE & INDUSTRY SUPPORT

- IHE ASSET MAPPING SUPPORT & PROMOTION
- WWW.RAPIDSKILLSGENERATOR.ORG
 - Common Language for IHEs and Industry
 - Promotion to Various Industry Sectors:
Transportation, the Automotive and Defense Manufacturing and Industrial Base, Healthcare, Information Technology



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WASHTENAW COMMUNITY COLLEGE, ANN ARBOR, MI



Washtenaw
Community
College

ALAN R. LECZ

DIRECTOR- ADVANCED TRANSPORTATION CENTER

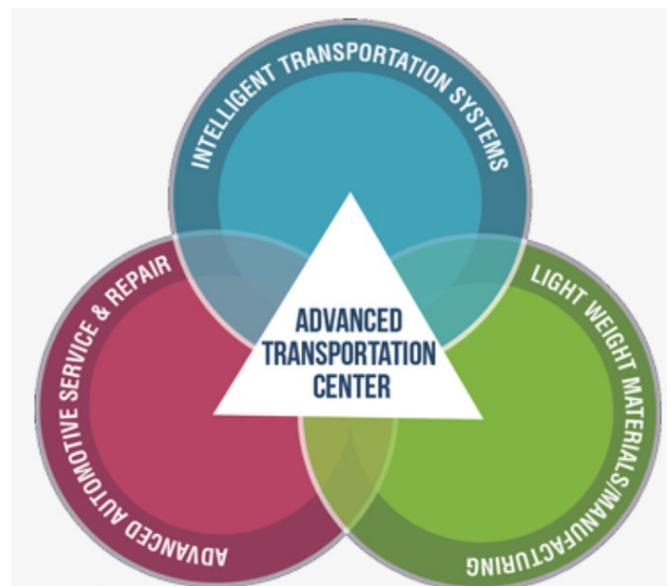
GENERAL SCHOOL INFORMATION

- School Location: Ann Arbor, Michigan
- Student population size: In our last full academic year (2018-19) we served 21,234 credit students.



WCC'S ADVANCED TRANSPORTATION CENTER

- The Advanced Transportation Center combines advanced manufacturing, automotive and information technologies to develop the skills and competencies required to meet the needs of area employers. The following programs are currently in place:
 - **Intelligent Transportation Systems: Vehicle-to-Vehicle and Vehicle-to-Infrastructure Communications and Networks, and Cybersecurity**
 - **Advanced Automotive Service: Diagnostic Testing, Development, Maintenance and Repair**
 - **Advanced Manufacturing: The latest manufacturing machines, tools and processes, including light-weighting materials**



OVERVIEW OF ATC “PARTNERSHIPS”

- **What was the transportation workforce need that these partnerships were intended to address?**
[partial listing examples]
 - **MDOT & Contractors: Transportation Technicians for Infrastructure, V2X, SMART Cities, Cyberscore**
 - **Business & Industry: Specific Occupations**
 - Computer Programming, Cybersecurity and Network Communications
 - Automotive & Electronics Diagnosis and Service
 - Product Development at OEM’s and Tier Suppliers [e.g. GRIMM, Umlaut, Ford, GM, Toyota]
 - Industry Professional Organizations [e.g. MICHauto, CAR, IEEE, ITS MI, ACM, NDIA, NOCoE]
 - **Economic Development, Regional & State: Occupational Clusters**
 - MI Economic Development Corporation/Planet M
 - MI Office of Future Mobility & Electrification
 - MI Labor & Economic Opportunity
 - **Universities: Occupational Clusters**
 - University of Michigan Transportation Research Institute & College of Engineering
 - Wayne State University College of Engineering & Engineering Technology
 - Michigan State University College of Engineering
 - Kettering University

MDOT & SUBCONTRACTORS COLLABORATED ON TALENT REQUIREMENTS & SKILL SETS



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MDOT
Michigan Department of Transportation

Search

SPEED LIMIT 45

COVID-19 Travel How Do I Performance Funding **Careers**

Jobs and Careers
 Why MDOT?
 MDOT Jobs and Careers
 MDOT Job Postings
 Veteran Internship
 Training and Development
 Student Internship Program
 Transportation and Civil Engineering Program (TRAC)
 Youth Development and Mentoring Program (YDMP)

News and Information

- 2020 Bay Region Flooding - Map with Photos
- 2020 Mackinac Bridge Walk Suspended
- MDOT lifts traffic restrictions to ease Fourth of July travel
- Bridge beam setting closing Long Lake Road under I-75 daily starting Wednesday morning in Oakland County
- M-30 flooding repairs in Midland and Gladwin counties begin June 29

Stay Connected

Construction & Traffic

TALKING MICHIGAN TRANSPORTATION

Toward Zero Deaths

June 30, 2020
395
Traffic Deaths in Michigan this Year

INTEGRAL BLUE COMMUNICATIONS ENGINEERING & SYSTEMS INTEGRATION

HOME ABOUT SERVICES CAREERS CONTACT

Integral Blue Services

- Design
- Engineering
- Consulting
- Installation
- Integration
- Maintenance
- Staffing

ITS Technologies

Communication System Topologies

- Wireless
- Fiber Optic
- Copper

Technologies

- Connected Vehicle
- Closed Circuit Television (CCTV)
- Border Wap Time
- Road Weather Information System (RWIS)
- Microwave Vehicle Detection System (M/VDS)
- Dynamic Message Sign (DMS)
- Traveler Information Systems
- Traffic Control Systems
- Video Management Systems
- Network Management Systems
- Highway Advisory Radio Systems
- Microwave Radio Systems
- IP Network Switches/Routers/Firewalls

Integral Blue Staff

Our team has over 100 years' combined experience and includes:

- Executive Management
- Project Managers
- ITS Engineers
- Network Engineers
- Registered Communication Distribution Designers (RCDD)
- Cisco Certified Network Administrators (CCNA)
- Cisco Certified Network Professionals (CCNP)
- Certified BICSI Installer 2, Optical Fiber Technicians
- Estimators
- Field Supervisors
- ITS Technicians
- Health and Safety Manager
- Tower-Climbing Technicians

WSP WHO WE ARE WHAT WE DO RESEARCH CAREERS

Investors News Contact Us

NEW MOBILITY

Connectivity, automation, sharing and electric propulsion are enabling seismic change across all aspects of mobility - from the way we commute to how we plan and develop infrastructure for the cities of today and the future.

MICHAUTO COLLABORATING FORUMS



MICH auto MICHIGAN IS AUTOMOBILITY

GLOBAL OEM DESTINATION

Headquarters in Michigan

FCA FORD GM

North American Headquarters or Technology Center in Michigan

HOLLINGER MOTORS DAIMLER GAC MOTOR HINO

HYUNDAI ISUZU Mahindra MITSUBISHI MOTORS

RIVIAN SAIC SERES SUBARU TOYOTA



We are committed to Michigan's role as a global leader in transform mobility technology and the autom landscape while improving the live safety of our residents and visitors, innovation and real-world employ new transportation technologies th unique and innovative partnership will continue to advance our state i maintain our edge in mobility.

Gretchen Whitmer,
Governor, State of Michigan

Michigan Is Auto

GLOBAL MOBILITY LEADER

Michigan is a world leader in connected and automated vehicle legislation and infrastructure investment. Matched with the testing and deployment of connected, automated, and electric vehicles, the state has become a global mobility hub.

#1 in the nation
for engineering talent concentration

Home to
globally recognized automated testing sites,
with Mcity in Ann Arbor, the American Center for Mobility in Ypsilanti, and Kettering University GM Mobility Research Center in Flint

Home to the
largest deployment of V2I
(vehicle-to-infrastructure) technology in the U.S., with more than 500 miles of V2I-enabled roadway

Michigan ranks
#6 in the nation for number of inven
with 9,454 issued patents in 2019



EDUCATION PIPELINE

The automotive and mobility industry depends on top engineering graduates to power Michigan's workforce. This highly skilled talent pipeline is moving the industry forward into the next decade and growing the state's economy.

- 8,600+** engineering degrees were awarded by Michigan education institutions in 2018, with 39% master's degrees or higher
- 16** universities and colleges have nationally ranked undergraduate engineering programs, and four have nationally ranked graduate programs
- 138,585** total degrees were awarded by state educational institutions in 2018

Top 10 Engineering Graduates

Institutions	City	Degrees Conferred (2018)	Growth % Year-Over-Year	IPEDS Status and Fees (2018)
University of Michigan	Ann Arbor	2,850	+5.5%	\$19,225
Michigan Technological University	Houghton	1,168	+1.7%	\$18,800
Michigan State University	East Lansing	930	+4.6%	\$15,205
Wayne State University	Detroit	748	+10.0%	\$14,175
University of Michigan	Dearborn	537	+15.0%	\$13,110
Oakland University	Rochester	443	+8.2%	\$13,916
Western Michigan University	Kalamazoo	412	+4.6%	\$12,483
Lewistech Technological University	Southfield	407	+18.5%	\$11,910
Kettering University	Flint	352	+5.7%	\$10,228
University of Detroit Mercy	Detroit	180	+100.9%*	\$29,000

Source: IPEDS Data Center, accessed November 2019 at IPEDS

Community College Mobility Centers

Washtenaw Community College
Advanced Transportation Center

Macomb Community College
Center for Advanced Automotive Technology

MICH

MORE EXAMPLES OF COLLABORATION FORUMS THAT INCLUDED MDOT



Michigan Connected and Automated Vehicle Working Group

January 29, 2020

1 pm - 4 pm

FEV North America Inc.

1300 Harmon Road, Auburn Hills, 48326

Meeting Agenda

12:30 PM Registration and Networking

1:00 PM

Introduction and Update

Zahra Bahrani Fard, Transportation Systems Analyst, Center for Automotive Research

FEV NA Inc. Welcome Remarks

Patrick Hupperich, President and CEO, FEV NA Inc.

TBD

Eric Gannaway, Senior Sales Executive, Siemens Industry Inc. Mobility & ITS Division

Verizon and MCity Partnership Overview

Anthony Magnan, Head of Emerging Vehicle Technology, Verizon

DOE'S SMART Mobility Consortium R&D Program Insights

Thomas Wallner, Manager of the Advanced Mobility Technology Laboratory, Argonne National Laboratory, Center for Transportation Research

2:20 PM Networking Break

Hot Topics Discussion

Frank Perry, Principal Consultant, CAV Program Manager, WSP

Update on MDOT CAV Activities

Collin Castle, ITS program Manager, Michigan Department of Transportation

Autonomous Vehicles and Their Implications for Powertrain

Mayank Agochiya, Managing Director, FEV Consulting, Inc.

Emerging Technology, Workforce Development

Michele Economou Ureste, Executive Director, Workforce Intelligence Network (WIN)

4:00 PM Meeting Adjourned

Organized by Center for Automotive Research (CAR)

www.cargroup.org



planetM Pilot Programs

As of December 2019, at least 32 PlanetM-funded mobility pilots were underway in Michigan, bringing the total to 60 pilot deployments in 23 counties.

PlanetM Mobility Grants:

A partnership between PlanetM and NextEnergy that provides expertise and project management services for pilot programs and encourages mobility startups and corporations to deploy technologies in Michigan.

\$8 Million Michigan Mobility Challenge:

A collaboration between the State of Michigan, MDOT, PlanetM, and four other state agencies, the Challenge is a grant initiative to address core mobility gaps for seniors, people with disabilities, and veterans across the state.

NAIAS 2020 Michigan Mobility Challenge:

A partnership between the State of Michigan, MDOT, and PlanetM, the Challenge calls on industry innovators to propose autonomous technology deployments that demonstrate the transformative power of automotive and connected vehicle technology.

Ann Arbor Mobility Transformation Program:

A public-private partnership among Ann Arbor SPARK, the City of Ann Arbor, Deloitte, Ford Smart Mobility, PlanetM, and the University of Michigan, this program aims to integrate data from mobility solutions into a centralized digital platform for city planners and transportation users to make more informed decisions.

Project Kinetic:

A unique collaboration between the public, private, and philanthropic sectors, which resulted in more than 120 innovative solutions including community car-shares, fast charging, micro-transit, and other pilots to tackle some of the most pressing mobility challenges facing Detroit.

City One Challenge:

A collaboration between PlanetM, Ford Motor Company, and local partners to modernize and streamline access to transportation as well as solve mobility problems to help improve the quality of life for communities. Challenges took place in the following communities:

- **Grand Rapids:** PlanetM, Ford Motor Company, Mobile GR, City of Grand Rapids, and The Right Place
- **Detroit:** Michigan Central Station - Ford Motor Company, PlanetM, and the City of Detroit

Grand Rapids Autonomous Vehicle Initiative:

Nine Michigan companies, as well as the city of Grand Rapids and the State of Michigan, formed a unique coalition placing May Mobility autonomous vehicles on city streets.

Michigan Association for Pupul Transportation (MAPT) Electric School Bus Project:

MAPT, with support from PlanetM and the Department of Environment, Great Lakes, and Energy (EGLE), awarded seven school districts a total of \$4.2 million to pay for 70% of the costs associated with buying 17 zero-emission buses as well as Level 2 and DC Fast Charging stations.

Mobileye Pilot Deployment:

A public-private partnership consisting of the State of Michigan, MDOT, PlanetM, and Mobileye, the pilot features installing Advanced Driver Assist Systems (ADAS) equipment in up to 100 fleet vehicles to reduce collisions and collect data to enhance safety for Michigan's fleets.

Michigan Is Automating | 14



Event Program

8:00 AM	Welcome Opening Remarks Henry Liu , Director, Center for Connected and Automated Transportation
8:15 AM	Keynote John Kwant , Global Director of Government Relations for Mobility and Advanced Technologies, Ford Motor Co.
8:45 AM	Panel 1: Mobility Blues Will AVs be the solution to the world's mobility and transportation problems? We are now facing difficult realities of making autonomous vehicles functional and practical for everyday use. Moderator: James Sayer, Director, University of Michigan Transportation Research Institute (UMTRI) Panelists: Sue Bai, Chief Engineer - Automotive Technology Research, Honda R&D Americas, Inc. Raymond Hess, Transportation Manager, City of Ann Arbor Ramanarayan Vasudevan, Assistant Professor, University of Michigan Steve Vazar, Principal and Founder, Vazar Technology Consulting
9:45 AM	CCAT Research Panel: Multi-Front Approach for Improving Navigation of Autonomous and Connected Trucks Moderator: Yanfeng Ouyang, George Krambles Endowed Professor, University of Illinois at Urbana-Champaign
10:15 AM	Break
10:25 AM	Panel 2: Who Do We Sue? As ADAS technology continues to roll out and the march toward Level 3 autonomy accelerates, litigation is going to follow in lock step. How are these technologies changing the traditional allocation of legal liability between product manufacturer and product user? Moderator: Amy Mass, Vice President and Counsel, The Hanover Insurance Group Panelists: Tom Branigan, Managing Partner, Bowman & Brooke Emily Frascoroli, Managing Counsel, Ford Motor Co. Ryan Harrington, Principal - Vehicle Engineering Practice, Exponent David Yang, Executive Director, AAA Foundation for Traffic Safety
2:00 PM	Panel 4: AV Investment and Public Acceptance It is apparent that the auto industry and broader transportation sector is shifting the collective timeline for widespread deployment of fully autonomous vehicles to a more distant future. How are massive investments in AV technology being applied to ADAS? This panel will also cover public acceptance of AVs and EVs. Moderator: John Peracchio, Managing Member, Peracchio & Company, LLC Panelists: Peter Appel, Director - Transportation and Supply Chain, AlxPartners Hidaki Koldage, Executive Engineer - Technical Strategy, Toyota Motor North America - R&D Krislin Koldage, Executive Director, J.D. Power
3:00 PM	CCAT Research Panel: Operation of Efficient and Budget-Balanced Shared-Use Mobility Systems Moderator: Neda Masoud, Assistant Professor, University of Michigan
3:30 PM	Break
3:40 PM	Panel 5: Infrastructure - Make Way for CAVs How will the infrastructure and road landscape need to change with the onset of CAVs? What are the implications of these changes? Are there steps that cities, states, and regions can make to ensure that the transition to a connected transportation model is as smooth as possible? Moderator: Collin Castle, ITS Program Manager, Michigan Department of Transportation Panelists: Yiheng Feng, Assistant Research Scientist, UMTRI Joel Leisch, Owner, JRL Consulting Weisong Shi, Associate Dean for Research, Wayne State University, Director, The CAR Lab Scott Shogan, Vice President - Michigan Area Manager, WSP USA
4:40 PM	Closing Remarks (Hindight Is 20/20) Henry Liu , Director, Center for Connected and Automated Transportation
5:00 PM	20/20 CCAT Global Symposium Ends



U.S. Department of Transportation
ITS Joint Program Office

OVERVIEW OF ATC “PARTNERSHIPS” [CONTINUED]

- **How were the partnerships initiated?**
 - Outreach
 - Through “Conveners”
 - Common focus meetings, forums organized by Transportation/Mobility topics
 - UTC Grant Projects [Square One Education Network]
- **Who led the effort at the Community College?**
 - Instructors
 - Deans, AVP’s/VP’s, and the President
 - Workforce Development Professionals
 - Career Services Professionals
 - ATC Director
- **Who led the effort at the DOT/employer?**
 - Designated representatives and outreach personnel
 - Leaders and Speakers in industry forums
 - Other leadership



IMPLEMENTING “PARTNERSHIPS”

- **What steps did the school and employer take to implement the partnership?**
 - Shared common goals and objectives for workforce development
 - Agreed to work together in detail on certain projects
 - Facilitated by industry organizations and forums [conveners]
- **Did the partnership result in any curriculum changes?**
 - Yes, by Department:
 - **BUSINESS & COMPUTER TECHNOLOGIES**
 - **TRANSPORTATION TECHNOLOGIES**
 - **WORKFORCE/EMPLOYER DEVELOPMENT**
 - Examples to be presented
- **What stakeholders did you have to engage?**
 - Various leadership and outreach professionals in the respective organizations
 - Support and commitment to the conveners



CHALLENGES AND BARRIERS

- **What challenges did you face in creating the partnership(s)?**
 - Detail data on workforce and talent demand- a common starting point
 - Resources [e.g. funding, timing, personnel]
 - Roles & Responsibilities
 - Alignment of efforts, a “Systems” approach
 - Continuity of efforts
 - Outreach
 - Periodic performance assessments, contributions
- **How did you overcome them? Are there any remaining challenges?**
 - Common goals & shared objectives to develop talent and the workforce
 - Collaboration processes and forums
 - Clarity on deliverables
 - Deliverable Assessments
 - Adjustments for what wasn’t working well
 - Continuous improvements



BENEFITS OF “PARTNERSHIPS”

- **How has the partnership benefited the community college?**

- Professional Development of Instructors & WF Professionals
- Outreach for programs
- A “Students-first” approach
- Internships for students
- New lines of communication, new partners
- Youth interest in occupational fields



- **How has the partnership benefited the employer [or other organization]?**

- WCC developing skills/talent for the organization’s workforce
- Supported State of Mi Economic Development in ITS, Mobility, SMART Cities

- **Specific numbers – such as number of students in an ITS program, number of graduates employed by the DOT, etc. – would be helpful if they are available.**

- Not available at this time

LESSONS LEARNED

- **What went well in forming the partnership(s)?**
 - Common purpose and missions- a desire for growth & contribution
 - Alignment of efforts, roles, responsibilities
 - Responsiveness, **contributions**, perseverance
 - Development of talent with focused skill sets
- **What do you plan to do differently going forward?**
 - Keep adjusting for changes to major goals and objectives
 - Update for personnel changes
- **What advice do you have for other Community Colleges or DOTs that are interested in forming a partnership?**
 - Explore the partnership possibilities within your mission scope
 - Sincere enthusiasm, commitments to engage and follow-up, take responsibility for role
 - Do you have the resources to actively commit to a partnership?
 - What will be your contributions?
 - Pay attention to details of the partnership, communications, deliverables, etc.



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