

2023 Vehicle Technologies Office Annual Merit Review

Energy Efficient Mobility Systems (EEMS) Detailed Schedule

Tuesday, June 13, 2023	
10:00 AM	EEMS093: Transportation System Impact: POLARIS Workflow Development, Implementation and Deployment, Joshua Auld, ANL
10:15 AM	
10:30 AM	
10:45 AM	
11:00 AM	EEMS092: BEAM CORE, Anna Spurlock, LBNL
11:15 AM	
11:30 AM	EEMS096: Characterizing Behaviors and Capabilities for Emerging Connected and Automated Vehicle Technologies and Sensors, Thomas Wallner, ANL
11:45 AM	
12:00 PM	EEMS095: Integrated Control of Vehicle Speeds and Traffic Signals for Reducing Congestion and Energy Use, Jinghui Yuan, ORNL
12:15 PM	
12:30 PM	Time Buffer
12:40 PM	Lunch Break
1:40 PM	EEMS089: Energy Efficient CAVs: Workflow Development and Deployment, Dominik Karbowski, ANL
1:55 PM	
2:10 PM	EEMS094: Development and Validation of Intelligent CAV Controls for Energy-Efficiency, Dominik Karbowski, ANL
2:25 PM	
2:40 PM	EEMS098: Optimizing Drone Deployment for More Effective Movement of Goods, Victor Walker, INL
2:55 PM	EEMS097: Micromobility-Integrated Transit and Infrastructure for Efficiency (MITIE), Andrew Duvall, NREL
3:10 PM	Time Buffer
3:15 PM	Break
3:45 PM	EEMS100: Dynamic Curb Allocation, Nawaf Mohammed, PNNL
4:00 PM	
4:15 PM	EEMS113: Testing and Evaluation of Curb Management and Integrated Strategies to Catalyze Market Adoption of Electric Vehicles, Lauren Harper, LACI
4:30 PM	
4:45 PM	EEMS110: Human Factors and Technologies Design to Improve User Acceptance of Pooled Rideshare (PR) for Increasing Transportation System Energy Efficiency, Yunyi Jia & Johnell Brooks, Clemson
5:00 PM	
5:15 PM	Day 1 Ends

Wednesday, June 14, 2023	
10:00 AM	EEMS101: RealSim, An Anything-in-the-loop Platform for Mobility Technologies, Yunli Shao, ORNL
10:15 AM	
10:30 AM	EEMS114: Real Twin, Yunli Shao, ORNL
10:45 AM	
11:00 AM	EEMS066: Livewire Data Platform-A Solution for Energy Efficient Mobility Systems (EEMS) Data Sharing, Lauren Spath-Luhning, NREL
11:15 AM	EEMS115: Modeling Connected and Automated (CAV) Compute Power, Ben Feinberg, SNL
11:30 AM	EEMS099: Metrics for Assessing the Impacts of Energy-Efficient Mobility Systems, Venu Garikapati, NREL
11:45 AM	
12:00 PM	EEMS112: NREL Core Modeling & Decision Support Capabilities (RouteE, FASTSim, OpenPATH, T3CO), Jeff Gonder, NREL
12:15 PM	
12:30 PM	Time Buffer
12:40 PM	Lunch Break
1:40 PM	EEMS013: ANL Core Tools-Simulation, Phil Sharer, ANL
1:55 PM	
2:10 PM	EEMS041: ANL Everything-in-the-loop (XIL) Capabilities, Kevin Stutenberg, ANL
2:25 PM	
2:40 PM	EEMS116: High-Quality Perception Data, Zach Asher, Western Michigan
2:55 PM	EEMS117: Visual-Enhanced Cooperative Traffic Operations (VECTOR) System, "Cami" Qianwen Li, University of South Florida
3:10 PM	Time Buffer
3:15 PM	Break
3:45 PM	EEMS090: Applying Artificial Intelligence (AI) Based Signal Coordination and Controls for Optimized Mobility for the Nimitz Highway, Hong Wang, ORNL
4:00 PM	
4:15 PM	EEMS109: Connected and Learning Based Optimal Freight Management for Efficiency, Ali Borhan, Cummins
4:30 PM	
4:45 PM	EEMS108: Co-Optimization of Vehicles and Routes, Nick Hertlein, PACCAR
5:00 PM	
5:15 PM	Day 2 Ends

Thursday, June 15, 2023	
10:00 AM	EEMS106: Developing an Energy-Conscious Traffic Signal Control System for Optimized Fuel Consumption in Connected Vehicle Environments, Mina Sartipi, University of Tennessee, Chattanooga
10:15 AM	
10:30 AM	EEMS105: Energy Optimization of Light and Heavy Duty Vehicle Cohorts of Mixed Connectivity, Automation and Propulsion System Capabilities via Meshed V2V-V2I and Expanded Data Sharing, Darrell Robinette, Michigan Technological University
10:45 AM	
11:00 AM	EEMS107: Improving network-wide fuel economy and enabling traffic signal optimization using infrastructure and vehicle-based sensing and connectivity, Joshua Bittle, University of Alabama
11:15 AM	
11:30 AM	EEMS121: Decentralized and Cooperative Traffic Signal Network for Freight Energy Efficiency, Safety, Sustainability, and Public Health, Michael Lim, Xtelligent
11:45 AM	
12:00 PM	EEMS118: AI-Based Mobility Monitoring System and Analytics Demonstration Pilot, Scott Samuelson, UC-Irvine
12:15 PM	
12:30 PM	Time Buffer
12:40 PM	Lunch Break
1:40 PM	EEMS119: Improved Mobility and Energy Savings Through Optimization of Cooperative Driving Automation (CDA) Application for Signal Controls for Arterial Mixed Traffic Scenarios, Xiao-Yun Lu, LBNL
1:55 PM	
2:10 PM	EEMS120: A Cooperative Driving Automation (CDA) Framework for Communications, Adian Cook, ORNL
2:25 PM	
2:40 PM	EEMS111: Contextual Predictions and Eco Services for Electrified Vehicles, Jacopo Guanetti, AV-Connect, Inc.
2:55 PM	
3:10 PM	Time Buffer
3:15 PM	Break
3:45 PM	EEMS103: Transit-Centric Smart Mobility System for High-Growth Urban Activity Centers: Improving Energy Efficiency through Machine Learning, Jinhua Zhao, MIT
4:00 PM	
4:15 PM	EEMS102: AI-Engine for Optimizing Integrated Service in Mixed Fleet Transit Operations, Philip Pugliese, Go Carta
4:30 PM	
4:45 PM	EEMS104: Increasing Affordability, Energy Efficiency, and Ridership of Transit Bus Systems through Large-Scale Electrification, Ziqi Song, USU
5:00 PM	
5:15 PM	AMR Ends