SAMS AGV

Summit on Advancing Modeling and Simulation for Autonomous Ground Vehicles

Agenda

Welcome Event – Tuesday June 20

Dress code: Business Casual

6:00 PM – 8:00 PM	**Welcome Event and Registration** Shorty's at The Mill *Light fare, drinks* Check in with the workshop, pick up your badge, and visit with other attendees in a relaxed atmosphere.

Day 1 – Wednesday, June 21

Dress code: Business Casual

8:00 AM – 9:00 AM	**Breakfast and Registration** The Mill, Foyer and Ballroom C *Buffet style breakfast (Assorted Freshly Baked Muffins, Assorted Bagels, Whipped Butter, Assorted Cream Cheese, Assorted Fruit Preserves, Seasonal Fresh Fruit Salad) coffee, water*
9:00 AM	**Welcome and Opening Remarks** Dr. Daniel Carruth *Associate Director, Center for Advanced Vehicular Systems, Mississippi State University* Dr. Jason Keith *Dean, Bagley College of Engineering, Mississippi State University* Maj. Gen. (ret.) Jim Martin *Associate Vice President for Corporate Engagement and Economic Development, Mississippi State University*
9:20 AM	**US Army Perspectives Introductory Remarks** Mr. Bartley Durst *Director, Geotechnical and Structures Laboratory, US Army Engineer Research and Development Center*

Day 1 – Wednesday, June 21 Cont.	
9:35 AM	**US Army Modeling and Simulation Panel** Mr. Nicholas Boone *Senior Scientific Technical Manager, Tech Director, Force Projection/Maneuver Support, US Army Engineer Research and Development Center* Dr. Rajneesh Singh *Associate Chief of the Science of Intelligent Systems Division, Army Research Laboratory* Dr. Raju Namburu *Chief Technology Officer, Information Technology Lab, US Army Engineer Research and Development Center* Moderator: Dr. Daniel Carruth, *Mississippi State University*
10:10 AM	**Break**
10:20 AM	**Industry Users and Developers Panel** Mr. Robert Belle-Isle *Robotics Software Engineer, Neya Systems* Mr. Karl Leodler *Founder and CEO, Dynamic Dimension Technologies* Dr. Tamer Wasfy *Founder and Chairman, Advanced Science and Automation Corp.* Dr. Xiaobo Yang *SAE & ASME Fellow, Senior Chief Principal Engineer, Global Technology Center, Oshkosh Corporation* Moderator: Dr. Reed Mosher, *Mississippi State University*
11:20 AM	**Keynote: NATO AVT-341: Off-Road Mobility Assessment Methods and Tools for Autonomous Military Ground Systems** Dr. Paramsothy Jayakumar *Senior Technical Expert, Analytics, US Army DEVCOM Ground Vehicle Systems Center*
12:00 PM	**Lunch** **The Mill, Foyer and Ballroom C** *Buffet style lunch including vegetarian options, drinks (coffee, tea, water)*

Day 1 – Wednesday, June 21 Cont.	
1:00 PM	**Academic Users and Developers Panel** Dr. Chris Goodin *Assistant Research Professor, Center for Advanced Vehicular Systems, Mississippi State University* Dr. Yunyi Jia *McQueen Quattlebaum Associate Professor, Department of Automotive Engineering, Clemson University* Dr. Samuel Misko *Project Manager – Commercial & DoD Programs, Automotive Vehicle Mobility (AVM) Program, The University of Alabama at Birmingham* Dr. Dan Negrut *NVIDIA CUDA Fellow, Bernard A. and Frances M. Weideman Professor, Department of Mechanical Engineering, University of Wisconsin-Madison* Moderator: Mr. Jody Priddy, *US Army Engineer Research and Development Center*
2:00 PM	**Technical Session: Modeling and Simulating Cyberspace for Autonomous Ground Vehicles** Mr. Carter Bullard *Director of Cyber Security, Neya Systems*
2:20 PM	**Breakout Instructions**
2:30 PM	**Breakout Session 1** Focused roundtable conversations: unpacking recent successes, current challenges, and future of autonomous vehicle simulation.
3:30 PM	**Break –** *MSU Ice Cream in Foyer*
3:45 PM	**Breakout Session 2** Focused roundtable conversations: unpacking recent successes, current challenges, and future of autonomous vehicle simulation.
4:45 PM	**Wrap up**
6:00 PM – 8:00 PM *Dress code: Casual*	**Group Dinner @ The Little Dooey** Directions: https://goo.gl/maps/Wfv8Hfrp3HgL3kpP8 *Dinner including Catfish, Chicken, Pulled Pork, Baked Beans, Mac and Cheese, and Tea* A cultural landmark in Starkville, "The Little Dooey" is known for its delicious offerings such as catfish and BBQ pork and a range of beverages. A 10-12 minute walk from The Mill or parking available on-site.

Day 2 – Thursday, June 22	
Dress code: Business Casual	
8:00 AM – 9:00 AM	**Breakfast and Registration** The Mill, Foyer and Ballroom C *Made-to-order omelets, breakfast potatoes, fresh fruit, coffee, water*
9:00 AM	**Welcome and Agenda for Day 2**
9:10 AM	**Group Discussion** Brief review of Day 1 events and group discussion.
9:30 AM	**Keynote: Digital Engineering for Autonomous Off-Road Vehicles in the Automotive Research Center** Dr. Bogdan Epureanu *Arthur F. Thurnau Professor, Professor of Mechanical Engineering, and Professor of Electrical Engineering and Computer Science* *Director, Automotive Research Center, University of Michigan*
10:15 AM	**Sub-realtime Autonomy Simulation in CREATE-GV** Mr. John Kaniarz *Senior Computer Engineer, Immersive Simulation, US Army DEVCOM Ground Vehicle Systems Center*
10:45 AM	**Break**
11:00 AM	**Breakout Session 3** Focused roundtable conversations: unpacking recent successes, current challenges, and future of autonomous vehicle simulation.
12:00 PM	**Lunch** The Mill, Foyer and Ballroom C *Sandwiches, soup, and chips, drinks (coffee, tea, water)*
1:00 PM	**Technical Session** Session Chair: Ms. Sara Fuller **Integrated Simulation Workflows for Off-Road Autonomy** Mr. Mihir Acharya *Senior Product Manager, MathWorks* Ms. Julia Antoniou *Senior Application Engineer, MathWorks*
1:20 PM	**Autonomous Vehicles Simulation Platform** Dr. Tamer M. Wasfy *Founder and Chairman, Advanced Science and Automation Corp.*

Day 2 – Thursday, June 22 Cont.	
1:40 PM	**Enhancing Workflows and Goals: Bringing CAD Models to Simulation** Mr. Matt Miller *Electrical Engineer, GS Engineering*
2:00 PM	**Considerations for the Lunar Terrain Vehicle** Mr. Christopher Yeager *Senior Robotics Engineer and Leidos Technical Fellow, Leidos*
2:20 PM	**Summary and Path Forward** Review of the results of the breakout discussions. Collaborative development of a roadmap for modeling and simulation of autonomous ground vehicles.
3:00 PM	**Adjourn**

3:15 PM	**Optional: Organizational Meeting** Discuss the future of SAMS AGV.
3:30 – 5:00 PM	**Optional: Tours of the Center for Advanced Vehicular Systems** Directions: https://goo.gl/maps/TXXrByeoXAtp4PGm6 Tours of Mississippi State University's Center for Advanced Vehicular Systems (CAVS) are available for those interested. Sign-up sheets will be available at the registration desk.

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