

# SAMS AGV

Summit on Advancing Modeling and Simulation for Autonomous Ground Vehicles

## 2024

## Agenda

### Day 1 – Thursday, June 6

*Dress code: Business Casual*

#### 2:15 PM Welcome and Opening Remarks

Daniel Carruth

*Associate Director, Center for Advanced Vehicular Systems, Mississippi State University*

Bogdan Epureanu

*Director, Automotive Research Center, University of Michigan*

David Gorsich

*Chief Scientist, DEVCOM Ground Vehicle Systems Center*

#### 2:30 PM Addressing DoD Challenges in Modeling and Simulation at the Automotive Research Center

Panel discussion with the Automotive Research Center thrust leaders; ARC efforts to address DoD challenges in M&S

**Moderator:** Daniel Carruth

##### **Panelists**

- Jon Smereka  
*Senior Technical Expert, Ground Vehicle Robotics, DEVCOM Ground Vehicle Systems Center*
- Paramsothy Jayakumar  
*Senior Technical Expert, Analytics, DEVCOM Ground Vehicle Systems Center*
- Katie Sebeck  
*Research Materials Engineer, Materials Application and Integration Team, DEVCOM Ground Vehicle Systems Center*
- Vamshi Korivi  
*Technical Expert, Analytics, DEVCOM Ground Vehicle Systems Center*
- Matt Castanier  
*Research Mechanical Engineer, DEVCOM Ground Vehicle Systems Center*
- Steve Rapp  
*Senior Scientist, Analytics, DEVCOM Ground Vehicle Systems Center*

#### 3:30 PM Break

#### 3:45 PM Standards and Interoperability in Modeling and Simulation for Autonomous Ground Vehicles

Discussion of current efforts to support standardization, interoperability and portability of simulations.

**Moderator:** Mihir Acharya

##### **Panelists**

- Aaron Prather  
*Director of Robotics and Autonomous Systems Programs, ASTM International*
- Karthik Krishnan  
*Strategist North America, ASAM*
- Seo-Wook Park  
*Principal Application Engineer, MathWorks*
- Rich Romano  
*Staff Researcher, General Motors*

#### 4:45 PM ProjectGL: Lessons from Building a Modular and Extensible Simulation Software Framework

- Jason Hogan  
*Immersive Simulation, DEVCOM Ground Vehicle Systems Center*

#### 5:30 PM Networking/Social Event

## Day 2 – Friday, June 7

Dress code: Business Casual

8:00 AM Breakfast

9:00 AM **Opening Remarks**  
Daniel Carruth  
Mississippi State University

9:05 AM **Keynote Speaker: A Practitioner's Perspective on Next Generation Combat Vehicles Models & Simulations**  
COL Ryan Howell  
Chief of Staff, Next-Generation Combat Vehicle Cross Functional Team

9:40 AM **Industry Panel**  
Discussion of industry support for M&S in off-road environments  
**Moderator:** Daniel Carruth  
**Panelists**

- Joe Auchter  
Lead Engineer, Robotics, Southwest Research Institute (SwRI)
- Robert Belle-Isle  
Robotics Software Engineer, Neya Systems
- Brad Kriel  
Technical Program Manager, Duality AI
- David Kline  
Applied Intuition

10:40 AM Break

### Parallel Sessions

10:50 AM **Main Room Technical Presentations**  
**Session Chair:** Sara Fuller  
**Verification and Validation of Modeling and Simulation for Autonomous Systems A Case Study for VEET**

- Peilin Song  
Research Mechanical Engineer, USACE Engineer Research and Development Center Geotechnical and Structures Laboratory

**Enable Offroad Autonomy using Integrated Simulation with MATLAB and Simulink**

- Mihir Acharya & Julia Brault  
Senior Product Manager & Senior Application Engineer, Mathworks

**Modeling & Simulation in Support of the US Army and the DoD – A NAMC Perspective**

- Col. (Ret.) Warren Sponsler  
Chief Operations Officer, The National Advanced Mobility Consortium

10:50 AM **Breakouts**  
Focused roundtable conversations in multiple breakout rooms (limited space available – sign ups on-site) for a moderated group discussion. Each room is assigned a topic area with moderator(s) primed with material to drive discussion. The objective is to achieve equal parts education and idea generation, unpacking recent successes, current challenges, and future of autonomous vehicle simulation.

**Breakout Session #1 – Cybersecurity and Communications M&S**  
**Moderator:** Daniel Carruth, Mississippi State University

**Breakout Session #2 – Simulation Fidelity**  
**Moderator:** Chris Goodin, Mississippi State University

**Breakout Session #3 – Test Design for Autonomous Ground Vehicles**  
**Moderator:** Buhrman Gates, USACE ERDC

11:50 AM Break

12:00 PM **Wrap Up**  
Daniel Carruth

12:10 PM **Lunch Reception and Networking**

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