

Welcome to the MOSA Technical Session

Ms. Christina Salama, U.S. Army DEVCOM GVSC

Mr. Magid Athnasios, DCS Corporation

Mr. Nicholas Kasza, U.S. Army DEVCOM GVSC

Mr. Andrew Kerbrat, U.S. Army DEVCOM GVSC

Mr. Eric Bennett, U.S. Army DEVCOM GVSC



Published Paper Access

MODULAR OPEN
SYSTEMS APPROACH

<https://www.ndia-mich.org/gvsets/agenda/modular-open-systems-approach>



Agenda

MODULAR OPEN SYSTEMS APPROACH

MODULAR OPEN SYSTEMS APPROACH (MOSA) TECHNICAL SESSION

TUESDAY, AUGUST 13, 2024
LEGACY II, 2ND FLOOR

SUB-COMMITTEE

Christina Salama	U.S. Army DEVCOM Ground Vehicle Systems Center (GVSC)
Magid Athnasios	DCS Corporation
Nicholas Kasza	U.S. Army DEVCOM GVSC
Andrew Kerbrat	U.S. Army DEVCOM GVSC
Eric Bennett	U.S. Army DEVCOM GVSC

TUESDAY, AUGUST 13, 2024

-
- 8:00 a.m.** **Opening of GVSETS and the Technical Sessions in Legacy Ballroom, 2nd Floor**
Jim McManus, GVSETS Chair
Valde Garcia, President, NDIA-Michigan
Dr. David Gorsich, Chief Scientist, U.S. Army DEVCOM Ground Vehicle Systems Center (GVSC)
-
- 8:20 a.m.** **Autonomy Panel: Human-Machine Integrated Formations**
Moderator: Dr. Robert Sadowski, Chief Roboticist, U.S. Army DEVCOM GVSC
COL Ken Bernier, Project Manager, Future Battle Platforms, Program Executive Office Ground Combat Systems (PEO GCS)
Kurt Bruck, Vice President, Neya Systems
Robert Monto, Director, Advanced Concepts and Critical Technologies, U.S. Army Rapid Capabilities and Critical Technologies Office (RCCTO)
Leland "Kent" Shea, Product Manager, Robotics & Autonomous Systems, PEO CS&CSS
Dr. Amber Walker, Senior Vice President, Ground, C2, and Maritime Systems, Parry Labs
-
- 9:20 a.m.** **Best Paper Announcement**
Dr. David Gorsich, Chief Scientist, U.S. Army DEVCOM GVSC
Dr. Gregg Wildes, Business Development Manager, DornierWorks
-
- 9:30 a.m.** **Exhibitor Break**
-
- 10:05 a.m.** **Welcome to the MOSA Tech Session**
Magid Athnasios Senior Systems Engineer, DCS Corporation
-
- 10:10 a.m.** **The Art of Open-Standard System Architecture for Military Ground Vehicles**
Dr. Macam Dattathreya, Chief Engineer, U.S. Army DEVCOM GVSC
-
- 10:30 a.m.** **Lessons Learned from Applying the Future Airborne Capabilities Environment (FACE) Technical Standard in Military Ground Vehicle Architectures**
Christopher Crook, Computer Scientist, On-Line Applications Research (OAR) Corporation
Dr. Joel Sherrill, Chief Scientist, OAR Corporation
Leonard Elliott, Technical Specialist, U.S. Army DEVCOM GVSC
-
- 10:50 a.m.** **Time-Sensitive Networking (TSN) in Military Ground Vehicle Architectures**
Leonard Elliott, Technical Specialist, U.S. Army DEVCOM GVSC



Agenda

MODULAR OPEN SYSTEMS APPROACH

11:10 a.m.	Enabling Multi-Vendor Model Based Application Development Using the FACETM Technical Standard Mark Snyder, Senior Scientist, L3Harris Kirsten McCane, Defense Industry Segment Manager, Mathworks
11:30 a.m.	Sensor Latency Advantage in PCI Express Switched Fabrics Jim Reardon, VP Technology, One Stop Systems Inc.
11:50 a.m.	Lunch
1:05 p.m.	Introduction to the MOSA Cyber Session Nicholas Kasza, Computer Engineer, U.S. Army DEVCOM GVSC
1:10 p.m.	Challenges and Mitigations for Data Remanance in Field Programmable Gate Array (FPGA) Based Systems Kevin Paar, Senior Research Engineer, Graf Research Dr. Scott Harper, CTO, Graf Research
1:30 p.m.	A Simulation Framework for Evaluating the Cybersecurity of Autonomous Ground Vehicles Dr. Christopher Goodin, Associate Research Professor, Center for Advanced Vehicular Sysyems (CAVS), Mississippi State University (MSU) Sara Fuller, Associate Director, CAVS, MSU Dr. Daniel Carruth, Associate Director, CAVS, MSU Kaneesha Moore, Undergraduate Research Assistant, CAVS, MSU Benjamin Skinner, Undergraduate Research Assistant, CAVS, MSU Dr. Carl Mueller, Chief Engineer, Circadence Corporation
1:50 p.m.	Impact Analysis of Cyberattacks in Electric Propulsion Systems for Hybrid Tracked Vehicles. Grace Muriithi, Graduate Research Assistant, Clemson University Dr. Behnaz Papari, Assistant Professor, Clemson University Ali Arsalan, Graduate Research Assistant, Clemson University Asif Khan, Graduate Research Assistant, Clemson University Elutunji Buraimoh, Graduate Research Assistant, Clemson University Dr. Gokhan Ozkan, Research Assistant Professor, Clemson University Dr. Laxman Timilsina, Postdoctoral Researcher, Clemson University Prof. Christopher Edrington, Full Professor, Clemson University
2:10 p.m.	Towards Deployment of a Zero-Trust Architecture (ZTA) for Automated Vehicles (AV) Victor Murray, Assistant Director, High Reliability Systems, Southwest Research Institute Dr. Scott Lathrop, Director Cyber/Electronic Warfare Technology, Raytheon Dr. Dariusz Mikulski, Lead Computer Scientist, U.S. Army DEVCOM GVSC

2:30 p.m.	Exhibitor Break
3:15 p.m.	Introduction the MOSA Final Session Magid Athnasios, Senior Systems Engineer, DCS Corporation
3:20 p.m.	Move, Shoot, Communicate: A MOSA Perspective Eric Bennett, Senior Technical Expert, U.S. Army DEVCOM GVSC Adam Winters, Program Management Engineer, U.S. Army DEVCOM AC
3:40 p.m.	Harnessing Advanced Technologies for Swarm Operations Within CJADC2 Timothy Stewart, Director of Business Development, Aitech Emil Kheyfets, Director of Military & Aerospace Business Development, Aitech David Taylor, President, Thunder Bay Consulting LLC
4:00 p.m.	SOSA™ VNX+: Small Form Factor for Ground Vehicle Applications Mark Littlefield, Director System Products, Elma Electronic
4:20 p.m.	A MOSA Approach for Ground Vehicle System Enterprise Commonality Matt Rossmiller, Software SME, Jovian Software Consulting Anand Kelkar, Vice President, Jovian Software Consulting
4:40 p.m.	A Modular Open System Approach to a Digital Autonomy Testbed Gerald Roberts, Associate Technical Fellow, Torch Technologies Tim Palmer, Senior Fellow & Chief Engineer SAS, Torch Technologies Caleb Simmons, Senior Principal Engineer, Torch Technologies
5:00 p.m.	MOSA Technical Session Conclusion Christina Salama, Electrical Engineer, U.S. Army DEVCOM GVSC
5:15 p.m.	Networking Reception: GVSETS Visits The Wild Wild West – Outdoor Patio



Best Paper Announcement

MODULAR OPEN
SYSTEMS APPROACH

MOSA Best Paper: “THE ART OF OPEN-STANDARD SYSTEM ARCHITECTURE FOR MILITARY GROUND VEHICLES”

Cyber Best Paper: “Towards Deployment of a Zero-Trust Architecture (ZTA) for Automated Vehicles (AV)”



5:15 PM

MODULAR OPEN SYSTEMS APPROACH

Today: Networking Reception: GVSETS Wild Wild West

Wednesday: Exhibitor Reception: GVSETS Gold Rush

Overall Best Paper Announcement

Dr. David Gorsich, Chief Scientist, U.S. Army GVSC

Dr. Gregg Wildes, Business Development Manager, DornerWorks

