Association of the United States Army's Institute of Land Warfare

### ARMY AUTONOMY & ARTIFICIAL INTELLIGENCE SYMPOSIUM & EXPOSITION

A Professional Development Forum

## SHOW GUIDE AUTONOMY AND AI TO ENABLE MULTI-DOMAIN OPERATIONS





ASSOCIATION OF THE UNITED STATES ARMY



#### 21-23 May 2019 | Sheraton Waikiki | Honolulu, HI



#### A PROFESSIONAL DEVELOPMENT FORUM

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EXHIBITS Michael Cerami mcerami@ausa.org SPONSORSHIPS Gaye Hudson ghudson@ausa.org





#### WELCOME TO THE 2018 AUSA ARMY AUTONOMY & AI SYMPOSIUM & EXPOSITION A Professional Development Forum

On behalf of all of us at AUSA, thank you for joining us at our first Army Autonomy and Artificial Intelligence Symposium and Exposition in Detroit, MI. We are extremely pleased to be holding this event at the Cobo Center.

This important event will explore and showcase innovative ways the U.S. Army is addressing critical capability requirements in robotics, autonomy, machine learning, and artificial intelligence to effectively operate below armed conflict and, when necessary, to fight and win across all operational domains – land, air, maritime, space and cyberspace. We will explore how the Army-Industry team can best collaborate to achieve cost-effective ground-breaking solutions to military operational challenges, seamlessly reallocate operational resources as conditions change, and do so with the speed and efficiency that adversaries cannot match.

This event provides a forum for attendees to interact and participate in discussions with senior leaders from the Army, other military services, academia and industry about the Army's efforts to develop autonomy and AI capabilities for all of the domains. It will also provide a platform for industry partners to demonstrate breakthrough technologies that could help the U.S. Army meet its operational requirements.

In this Show Guide you'll find a complete listing of all exhibiting organizations, as well as key details on how to take full advantage of our event. A special thank you to all of our great exhibitors and sponsors for making this Show Guide possible. We look forward to seeing you throughout this event.

TRU

Carter F. Ham General, U.S. Army Retired President & CEO Association of the United States Army

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Coleman A. Young Municipal Center 2 Woodward Avenue, Suite 1126 Detroit, Michigan 48226 Phone 313-224-3400 Fax 313-224-4128 www.detroitmi.gov

November 28, 2018

Dear Friends and Greetings to all in attendance:



As Mayor of the City of Detroit, it is my pleasure to welcome you to our beloved city. We are honored to welcome all in attendance to the 2018 Association of the United States Army, Army Autonomy and Artificial Intelligence Symposium and

Exposition where attendees will have the opportunity to explore and showcase innovative ways the U.S. Army is developing critical capabilities in robotics, autonomy, machine learning and artificial intelligence.

The theme for this year's symposium is "Autonomy and AI to Enable Multi-Domain Operations" and will feature speakers and panelists from the Department of Defense, senior U.S. Army leadership, other government agencies and departments, industry and academia. We are delighted that you chose Detroit to host this year's symposium.

The City of Detroit is confident that you will find the Cobo Center a perfect setting for your symposium and exposition. While you are here, I invite you to enjoy all that our city has to offer and I encourage you to visit our riverfront, museums, restaurants, and explore the heart of Detroit.

On behalf of the City of Detroit, Welcome to Detroit!

Sincerely,

LP P Dung

Mike Duggan, Mayor

AUSA Membership Booth 204 Contact: Christine Lathrop Deputy Director, Membership 2425 Wilson Boulevard Arlington, VA 22201 United States Telephone: +1 703-907-2681 Email: clathrop@ausa.org Website: www.ausa.org/join



Membership with the Association of the United States Army (AUSA) offers tailored professional opportunities, community events, and educational materials for the Total Army—Regular, Guard, Reserve, Civilians, industry partners, retirees, veterans, family members, and supportive citizens in your local community.

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- Give your time, talent, and support to the world's greatest Army, preserve 240+ years of Army history, and nurture your Army community.
- Get access to the largest land power expo in North America, \$120K+ in scholarships, \$2.5M+ in educational resources, \$1M+ in Soldier and Family programming, a community of 100K+ members, career and professional opportunities, monthly subscriptions, and strong representation with the Army.
- Save big on AUSA events, travel, group insurance, event tickets, office supplies, and more. Visit Booth 204 to speak with active AUSA members, pick up free materials from AUSA's Institute of Land Warfare, and join today!

#### **OPENING NIGHT RECEPTION (EXHIBIT HALL E)**

OF LINING MIGHT RECEPTION (EXHIBIT HALE E)		
Open to all registered attendees		
Wednesday, 28 November:	1700 - 1830	
DE OLOTE ATION		
REGISTRATION		
Cobo Center Atrium		
Tuesday, 27 November:	1400 - 1700	
Wednesday, 28 November:	0700 - 1830	
Thursday, 29 November:	0700 - 1500	
EXHIBIT HALL HOURS		
Wednesday, 28 November:	0900 - 1830	
(Reception 1700 – 1830)		
Thursday, 29 November:	0900 - 1500	

#### **REFRESHMENT BREAKS (EXHIBIT HALL E)**

Wednesday, 28 November:

1030 - 11001230 - 13301500 - 1530

Thursday, 29 November: 1030 – 1100 1230 – 1350

#### **ONSITE MEETING ROOMS**

A limited amount of meeting space is available for use during the symposium. For more information, please visit the AUSA registration desk located in the atrium of the Cobo Center.

#### **PRESENTATIONS & PHOTOS**

Conference presentations and photos will be available online post event at: www.ausa.org/meetings

#### ACCESSIBILITY

The Cobo Center provides visitors with ADA compliant accessibility. Wheelchairs including electric scooters may be requested at the concourse Information Desk.

#### WIFI

To connect to complimentary WiFi throughout the Cobo Center, search for the wireless network named "CoboFree." Next, check mark the box to accept terms. No password is needed to access the network.



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#### TUESDAY, 27 NOVEMBER

1400 – 1700 REGISTRATION (*Hall E Atrium*)

#### WEDNESDAY, 28 NOVEMBER

0700 – 1830	REGISTRATION – Hall E Atrium
0700 – 0800	COFFEE SERVICE – Hall E Atrium
0800 – 0805	SYMPOSIUM ADMINISTRATION, SAFETY, SECURITY Mr. Alex Brody Director, Industry Programs Association of the United States Army
0805 – 0815	INTRODUCTION/WELCOME GEN Carter F. Ham United States Army Retired President and Chief Executive Officer Association of the United States Army
0815 – 0820	WELCOME TO DETROIT <b>Ms. Tammy J. Carnrike</b> Civilian Aide to the Secretary of the Army, Michigan Chief Operating Officer Detroit Regional Chamber
0820 – 0825	ROBOTICS DISPLAY INTRODUCTION
0825 – 0850	OPENING KEYNOTE SPEAKER GEN John M. (Mike) Murray Commanding General United States Army Futures Command
0850 — 0915	PRESENTATION Introduction to Multi-Domain Operations <b>LTG Eric J. Wesley</b> Deputy Commanding General, Futures Director, Army Capabilities Integration Center United States Army Training and Doctrine Command
0900 – 1830	EXHIBIT HALL HOURS
0915 – 1030	<b>PANEL DISCUSSION</b> Autonomy and Artificial Intelligence for Continuous Integration of Intelligence and Fires in an A2/AD Environment
	Panel Chair: <b>Mr. Andrew P. Ladas</b> Chief, Signal & Image Processing Division Lead Army Al Innovation Institute Army Research Laboratory
	Moderator: <b>Mr. Sydney J. Freedberg Jr.</b> Deputy Editor Breaking Defense
	Panel Members: <b>Mr. Alexander T. Miller</b> Science and Technology Advisor Office of the Deputy Chief of Staff, G-2 United States Army
	<b>BG Randall A. McIntire</b> Director Air and Missile Defense Cross Functional Team United States Army Futures Command

**COL Jason Chung** Assistant Chief of Staff, G-2 **United States Army Pacific COL David S. Lee** Chief of Staff Long Range Precision Fires Cross Functional Team United States Army Futures Command Mr. Sri Iyer Chief Technology Officer **Guidehouse Federal Advanced Projects** 1030 - 1100**REFRESHMENT BREAK – Hall E** 1100 - 1110 TECH TEN Mr. Craig Powell, CD Vice President **Global ISR Business Development** Systel, Inc. 1110 - 1230 PANEL DISCUSSION Robotics, Autonomy, and Artificial Intelligence in Small Units Chair: **BG Richard R. (Ross) Coffman** Director Next Generation Combat Vehicle Cross Functional Team United States Army Futures Command Moderator: LTC Christopher M. Korpela Associate Professor and Director, Robotics Research Center United States Military Academy Panel Members: Mr. Ted Maciuba, PE **Deputy Director, Robotics Requirements** United States Army Maneuver Center of Excellence **BG David M. Hodne** Deputy Commanding General, Infantry Maneuver Center of Excellence Commandant, United States Army Infantry School Mr. Armin Krishnan, PhD Professor & Director, Security Studies Program East Carolina University Author, "Killer Robots" **Ms. Helen Greiner** Highly Qualified Expert for Robotics, Autonomous Systems, and AI Office of the Assistant Secretary of the Army -Acquisition, Logistics, and Technology Co-Founder, iRobot

#### Mr. Robert W. Sadowski, PhD

Chief Roboticist United States Army Tank Automotive Research, Development & Engineering Center

1230 - 1330 REFRESHMENT BREAK - Hall E

1330 - 1340

TECH TEN **COL Scott D. Lathrop, PhD** United States Army Retired Director of Cyber and Secure Autonomy Soar Technology, Inc.

#### WEDNESDAY, 28 NOVEMBER (CONTINUED)

WEDNESDA	1, 20 NOVEMBER (CONTINUED)	
1340 - 1500	PANEL DISCUSSION Autonomy and Artificial Intelligence in Periods of Competition	
	Panel Chair: <b>Mr. Alexander Kott, PhD</b> Chief Scientist United States Army Research Laboratory	1700 –
	Moderator: <b>Mr. Stephen Rodriguez</b> Founder, One Defense Senior Advisor, Atlantic Council	<b>THUR</b> 0700 –
	Panel Members:	0700 –
	<b>Mr. Andrew A. Hill, PhD</b> Chair of Strategic Leadership United States Army War College	0800 —
	<b>BG Mark W. Odom</b> Director, Concept Development and Learning Army Capabilities Integration Center United States Army Training and Doctrine Command	0810 –
	<b>Dr. David Pynadath</b> Director, Social Simulation Research, Institute for Creative Technologies University of Southern California	0840 –
	<b>Mr. Robert Toguchi, PhD</b> Chief, Concepts Division United States Army Special Operations Command	0850 -
1500 – 1530	REFRESHMENT BREAK - HALL E	0000
1530 – 1545	TECH TEN <b>Mr. Jeffery Rupp</b> Chief Technical Officer, Chief Safety Officer The American Center for Mobility	0900 – <b>0915 –</b>
1545 – 1700	PANEL DISCUSSION Autonomy and Artificial Intelligence Enabled Mission Command in Multi-Domain Operations	0313 -
	Panel Chair: <b>MG Douglas C. Crissman</b> Director Mission Command Center of Excellence	
	Panel Moderator: <b>MAJ Benjamin Jensen, PhD</b> Senior Fellow, Atlantic Council Professor, Marine Corps University and American University United States Army Reserve	
	Panel Members:	
	<b>Lt Gen Dave Deptula</b> United States Air Force Retired Dean The Mitchell Institute for Aerospace Studies	
	<b>BG Christopher T. Donahue</b> Director, Soldier Lethality Cross Functional Team Deputy Director, Special Operations and Counter Terrorism J-3, Joint Staff	

		<b>Dr. Peter Schwartz</b> Lead Enterprise Systems Engineer The MITRE Corporation
n		<b>Col James Cook</b> Assistent Head Concepts Directorate of Capability British Army
	1700 – 1830	OPENING RECEPTION – EXHIBIT HALL E open to all registered attendees
	THURSDAY.	29 NOVEMBER
	0700 – 1500	REGISTRATION – Hall E Atrium
	0700 - 0800	COFFEE SERVICE – Hall E Atrium
	0800 – 0810	OPENING REMARKS <b>GEN Carter F. Ham</b> United States Army Retired President and Chief Executive Officer Association of the United States Army
	0810 – 0840	KEYNOTE PRESENTATION <b>Mr. Charles E. Freese</b> Executive Director, Global Fuel Cell Activities General Motors Company
	0840 – 0850	TECH TEN <b>Mr. Brady Moore</b> United States Army Retired Cognitive Solution Leader IBM Corporation
	0850 - 0915	RE-THINKING SPACE AND ACTIONABLE AUTONOMY <b>Ms. Fatema Hamdani</b> Co-Founder and President Kraus Aerospace
	0900 – 1500	EXHIBIT HALL HOURS
	0915 – 1030	PANEL DISCUSSION Managing Autonomy and Artificial Intelligence Development and Fielding
		Panel Chair and Moderator: <b>LTG Edward C. Cardon</b> United States Army Retired Former Director, Office of Business Transformation Office of the Under Secretary of the Army
		Panel Members:
I		<b>BG Matthew P. Easely</b> Director, Artificial Intelligence Task Force United States Army Futures Command
		Mr. Robert W. Sadowski, PhD

Mr. Robert W. Sadowski, PhD Chief Roboticist United States Army Tank Automotive Research, Development and Engineering Center

**Mr. Philip Perconti, PhD** Director, United States Army Research Laboratory United States Army Research, Development and Engineering Command

#### **THURSDAY, 29 NOVEMBER (CONTINUED)**

0915 – 1030	PANEL DISCUSSION (Continued) Managing Autonomy and Artificial Intelligence Development and Fielding	1330
	<b>Mr. Mike Colson</b> Senior Solutions Architect Amazon Web Services	1400
	<b>Mr. Charlie Greenbacker</b> Vice President, Analytics In-Q-Tel	
	<b>Mr. Michael Wagner</b> Co-Founder and Chief Executive Officer Edge Case Research	
1030 – 1100	REFRESHMENT BREAK	
1105 – 1115	TECH TEN <b>Mitchell M. Rohde, PhD</b> Chief Executive Officer Quantum Signal, LLC	
1115 – 1230	<b>PANEL DISCUSSION</b> Using Autonomy and Artificial Intelligence to Streamline Acquisition and Logistics	
	Panel Chair: <b>Col. Jered P. Helwig</b> Chief of Transportation United States Army Transportation Corps	
	Moderator: <b>Mr. Orin Hoffman</b> Autonomy and Robotics HQE Defense Innovation Unit	1500
	Panel Members:	
	<b>MG John Charlton</b> United States Army Retired Former Commander United States Army Test and Evaluation Command	
	<b>LTG Anthony R. lerardi</b> Director, Force Structure, Resources and Assessment J-8, Joint Staff	
	MG Michael A. Stone Assistant Adjutant General for Installations Michigan Army National Guard	
	<b>Mr. Amir Husain</b> Founder and Chief Executive Officer SparkCognition	
	<b>Mr. Bruce Busler</b> Director of the Joint Distribution Process Analysis Center United States Transportation Command	

1230 - 1350 REFRESHMENT BREAK - Hall E

1350 – 1400 TECH TEN Mr. Charlie Kawasaki Chief Technology Officer PacStar

> - 1500 PANEL DISCUSSION The Autonomy and Artificial Intelligence Capable Force: Evolving the Institutional Army

> > Chair: **BG Joseph P. McGee** Director, Talent Management Task Force Office of the Deputy Chief of Staff, G1

Panel Members:

**Mr. Michael Gray, PhD** Senior Data Scientist Army Analytics Group's Research Facilitation Laboratory

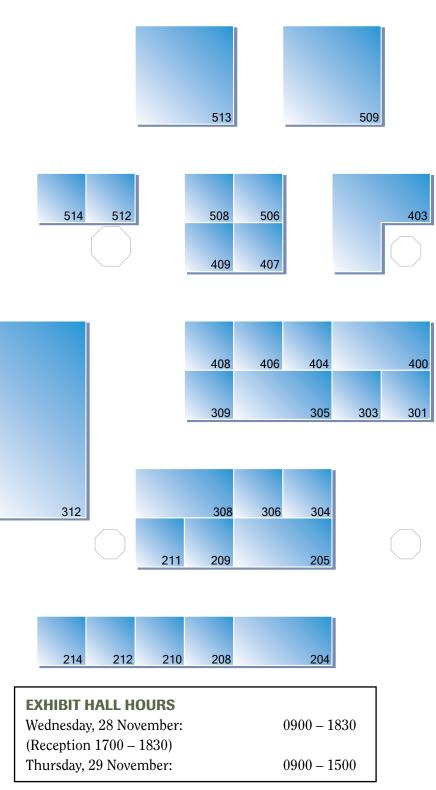
Mr. Bill Veenhuis Senior Solutions Architect, Automotive NVIDIA

**COL W. Mark Valentine** United States Air Force Retired Director, United States Army Team Microsoft

**Mr. Marc Mancher** Principal, Federal Automation Deloitte

DEPARTURE





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AAFMAA Wealth Management & Trust Contact(s): Katie Gushen- Relationship Manager 639 Executive Place Suite 200 Fayetteville, NC 28305 United States Telephone: +1 248-369-5698 Email: kgushen@aafmaa.com Website: www.aafmaa.com/wealth

AAFMAA Wealth Management & Trust empowers members of the armed forces community and their families with the tools to achieve financial security and independence. We are AAFMAA's trust company, providing servicemembers and Veterans from all branches with expert financial planning, investment management, and trust services, bound by a fiduciary standard of care for you. AAFMAA is the longest-standing, not-for-profit association exclusively serving the military with affordable financial solutions.

Categories: Banking / Financial Institutions, Financial Institutions, Military Organization, Non Profit Associations

#### Ace Electronics Defense Systems, LLC

Contact(s): Devin Daley 6210 Guardian Gateway, Suite 150 Aberdeen Proving Ground, MD 21005 USA Telephone: +1 732-603-9800 Email: ddaley@aceelectronics.com Website: www.AceElectronics.com

Ace Electronics Defense Systems is a privately owned Service-Disabled Veteran-Owned Small Business, SDVOSB, which manufactures custom cable assemblies and electronics. We specialize in electronic manufacturing and providing engineering support services. Ace Electronics Defense Systems supports all military branches throughout the world with Mil–Spec and Aerospace manufactured products. We pride ourselves on being 100% committed to meeting the specific requirements in defense contracting.

Categories: Command and Control Systems and Components (C4I), Communications Systems and Equipment, Electrical Equipment; Batteries and Power Supply, Electronics; Subsystems and Components, Manufacturing; Engineering and Test Equipment

#### **Altair Engineering, Inc**

Contact(s): Stacey Holman 1820 E. Big Beaver Road Troy, MI 48083 United States Telephone: +1 248-614-2400 Email: sholman@altair.com Website: altair.com

Altair transforms design and decision making by applying simulation, machine learning and optimization throughout product life cycles. Our broad portfolio of simulation technology and patented units-based software licensing model enable Simulation-Driven Innovation for our customers. With more than 2,000 employees, Altair is headquartered in Troy, Michigan, USA and operates 69 offices throughout 24 countries. Altair serves more than 5,000 customers across broad industry segments. To learn more, please visit www.altair.com.

Categories: Other

Booth: 409

**Booth: 304** 

**Booth: 210** 

#### AUSA Membership

Contact(s): Christine Lathrop 2425 Wilson Boulevard Arlington, VA 22201 USA Telephone: +1 703-907-2681 Email: clathrop@ausa.org Website: www.ausa.org



**Booth: 204** 

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Visit the AUSA booth to find more about AUSA member benefits, pick up free materials from AUSA's Institute of Land Warfare, and join today for less that \$2 a month!

Categories: Events and Publications, Non Profit Associations, Universities and Educational Organizations

#### Crystal Group Inc

Contact(s): Jakelyn Coon 855 Metzger Drive Hiawatha, IA 52233 USA Telephone: +1 319-378-1636 Email: jcoon@crystalrugged.com Website: www.crystalrugged.com

Crystal Group, leading rugged computer hardware manufacturer, offering design, engineering, integration, configuration management, lifecycle planning & 5+ year warranties of rugged servers, displays, power supplies, storage, embedded, networking devices for high reliability in harsh environments. We are an employee-owned small business founded in 1987, located in Hiawatha, Iowa, USA. Our products meet/exceed IEEE, IEC, and MIL-STD-810, 167, 461, MIL-S-901. NIST compliant and certified to AS9100D.

Categories: Command and Control Systems and Components (C4I), Communications Systems and Equipment, Cyber Security, Data Recording and Storage, Electrical Equipment; Batteries and Power Supply, Electronics; Subsystems and Components, Rugged Computers; Workstations and Peripherals, Unmanned Systems

#### Cybernet Systems Corporation

Booth: 309

Contact(s): Glenn Beach 3741 Plaza Drive Ann Arbor, Michigan 48108 USA Telephone: +1 734-668-2567 Email: info@cybernet.com Website: www.cybernet.com

Cybernet, a small business, is committed to advancing human performance through advanced technology. Cybernet's Michigan HQ focuses on technologies that improve processes through the targeted application of autonomy, automation, and artificial intelligence, including driverless and driver-assisted logistical robotics, human-computer interaction, sensor and image processing, and hardware development. The Florida office focuses on Cybersecurity support and product development.

Categories: Cyber Security, Logistics; Transportation; Supply and Spares, Materials Handling and Packaging, Unmanned Systems

Booth: 301

**Booth: 403** 

Booth: 404

#### Defense Mobility Enterprise

Contact(s): Alissa Roath 3025 Boardwalk, Suite 130 Ann Arbor, MI 48108 USA Telephone: +1 734-205-5920 Email: questions@NAMConsortium.org Website: www.defensemobility.org

The Defense Mobility Enterprise is a single consortium of Government laboratories and program offices managed by the Acquisition Management Office located at the Detroit Arsenal, and an industry/academic component - the National Advanced Mobility Consortium. The DME operates under an Other Transaction Agreement enabling the Government and industry to quickly and effectively develop innovative ground vehicle prototype technology solutions to the warfighter. Join NAMC at www.namconsortium.org.

Categories: Non Profit Associations, Unmanned Systems, Other

#### Defense Systems Information Analysis Center Booth: 506

Contact(s): Brian Benesch 4695 Millennium Drive Belcamp, MD 21017 USA Telephone: +1 443-360-4600 Email: brian.benesch@dsiac.org Website: www.dsiac.org

The Defense Systems Information Analysis Center (DSIAC) is a component of the U.S. Department of Defense's Information Analysis Center (IAC) enterprise, under the oversight of the Under Secretary of Defense for Research and Engineering (USDR&E) and the Defense Technical Information Center (DTIC). The purpose of DSIAC is to provide information research and analysis for DoD and Federal government users to stimulate innovation, foster collaboration, and eliminate redundancy.

Categories: Ammunition and Fuzes, Armoured Fighting Vehicles and Upgrades, Artillery and Mortars, Body Armor or Apparel, Bridging; Recovery; Breaching and Engineering, Command and Control Systems and Components (C4I), Communications Systems and Equipment, Countermeasures; Camouflage and Pyrotechnics, Cyber Security, Data Recording and Storage, Design and Information Management Software, Electrical Equipment; Batteries and Power Supply, Electromechanical and Electrohydraulic Equipment, Electronic Warfare and Jamming Systems, Electronics; Subsystems and Components, Events and Publications, Explosive Ordnance Disposal and Mine Clearance, Explosives; Powders and Propellants, Fire and Explosion Protection, Fire Control and Targeting, Government Organization, Helicopters, Machine Guns; Small Arms and Sights, Manufacturing; Engineering and Test Equipment, Military Vehicle Parts and Spares, Missiles; Rockets and Components, Navigation and Satellite Communications, Noise; Shock and Vibration Control, Optronics; Surveillance and Sighting Systems, Personal Protection; Medical and Survival Equipment, Propulsion; Transmission and Components, Tactical Gear, Technical Publications and Media, Tracks; Wheels; Tyres and Runflats, Training and Simulation, Turrets and Turret Sub-systems, Unmanned Aircraft Systems, Unmanned Systems, Vehicle Ballistic Protection, Other

#### FLIR Systems, Inc.

Contact(s): Olga Wheeler 27700 SW Parkway Avenue Wilsonville, OR 97070 USA Telephone: +1 971-770-4846 Email: Olga.Wheeler@flir.com Website: www.flir.com

FLIR is a leader in the design and manufacturing of sensor systems that enhance perception and awareness. The U.S. Army uses FLIR's advanced thermal imaging and threat detection systems for a variety of applications, including airborne and ground surveillance, targeting, search and rescue, and CBRNE detection. Strategic development and investments enable FLIR to be forward-looking in enhancing systems with AI, allowing Soldiers to more quickly and accurately make mission-critical decisions.

Categories: Base / Camp Protection and Security, Optronics; Surveillance and Sighting Systems, Unmanned Aircraft Systems, Unmanned Systems

**Booth: 303** 

General Dynamics Land Systems Contact(s): Jackie Roskopp 38500 Mound Road Sterling Heights, MI 48310 USA Telephone: +1 586-825-4653 Email: roskoppj@gdls.com Website: www.gdls.com

General Dynamics Land Systems provides innovative design, engineering, technology, production and full life-cycle support for land combat vehicles around the globe. The company's extensive experience, customer-first focus and seasoned supply chain network provide unmatched capabilities to the U.S. military and its allies.

Categories: Manufacturing; Engineering and Test Equipment, Military and Special Purpose Vehicles

#### Getac

Contact(s): Keri Bolding 15495 Sand Canyon Avenue, Suite 350 Irvine, CA 92618 USA Telephone: +1 949-390-4852 Email: Keri.Bolding@getac.com Website: www.getac.com

Since 1989, Getac has been manufacturing rugged computers for some of the most demanding users in the harshest environments. As a leading rugged computer manufacturer, Getac offers the most extensive rugged computing product line, including notebook and tablet computers. Getac products can be found across the globe in every branch of the U.S. military, including DoD deployments and federal civilian agencies where reliability is crucial to mission success.

Categories: Command and Control Systems and Components (C4I), IT; Computing and Software, Materials Handling and Packaging, Rugged Computers; Workstations and Peripherals

#### IBM

**Booth: 308** 

**Booth: 208** 

Contact(s): Roy Harris 2300 Dulles Station West Herndon, VA 20170 USA Telephone: +1 888-426-4968 Email: harrisar@us.ibm.com Website: http://www.ibm.com/federal

Welcome to the cognitive era, in which systems understand, reason, learn and interact. Cognitive systems ingest data to deliver insights, fostering better decision-making and amplifying agility in an increasingly complex threat environment. Compelling applications for defense include fleet readiness and maintenance, cybersecurity, imagery analysis and situational understanding. Are you ready for this new era?

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Categories: Cyber Security, Data Recording and Storage, Design and Information Management Software, IT; Computing and Software, Training and Simulation

#### iMerit

**Booth: 305** 

Contact(s): Robert Frary 14435C Big Basin Way, #256 Saratoga, California 95070 USA Telephone: +1 650-777-7857 Email: info@imerit.net Website: https://imerit.net/

iMerit provides high-volume data labeling services using an in-house workforce of 1,500+ full time data technicians domestically and abroad. We specialize in image/video, text, and audio data with over 30 million data points labeled to date. We stand apart with our balance of scalability, consultation, data security, competitive pricing, and quality. Whether you're just starting a labeling project or are well underway, we would love to connect and explore ways we can support your team.

Categories: Data Recording and Storage, IT; Computing and Software, Military and Special Purpose Vehicles, Navigation and Satellite Communications, Optronics; Surveillance and Sighting Systems, Training and Simulation, Unmanned Aircraft Systems, Unmanned Systems, Other **Kettering University** Contact(s): Michael Ciesielski 1700 University Ave. Flint, Michigan 48504 United States Telephone: +1 586-489-4393 Website: Kettering.edu Email: MCiesielski@Kettering.edu

Kettering University is a national leader in experiential STEM and Business education, integrating an intense academic curriculum with applied professional experience. Through this proven approach, we inspire students to realize their potential and advance their ideas by combining theory and practice better than any institution in the world. This year we are celebrating our Centennial and the future of education, built a century ago.

Categories: Universities and Educational Organizations

#### Macomb County + FIRST Robotics

**Booth: 509** 

Booth: 408

Contact(s): Vicky Rad 1 South Main, 7th Floor Mount Clemens, MI 48043 United States Telephone: +1 586-469-5065 Email: vicky.rad@macombgov.org Website: www.macombbusiness.com

FIRST Robotics inspires young people to become STEM leaders through mentor-based programs and competitions that involve raising funds, honing skills and building robots. It's as close to real-world engineering as a student can get. Macomb County, Mich. is fueling its talent pipeline by supporting its 16 FIRST Robotics high school teams. Stop by Booth 509 to meet these students, experience their innovations and learn why FIRST Robotics is an integral part of building a workforce for the future.

Categories: Government Organization, Other

#### Michigan Defense Center Networking Lounge **Booth: 513**

Contact(s): Vicki Selva 6633 18 Mile Road Sterling Heights, MI 48314 United States Telephone: +1 586-469-5065 Email: vickiselva@ymail.com Website: ArsenalofInnovation.com

The Michigan Defense Center provides resources and guidance to businesses, stakeholders, and partners to protect and grow Michigan's defense economy and missions. As the automotive capital of the world and home to internationally renowned universities, 375 innovation and testing labs, U.S. Army Centers for current and next generation vehicles, Michigan has the infrastructure and talent to support your needs. We are Michigan's Arsenal of Innovation.

Please visit us: www.arsenalofinnovation.com

Categories: Government Organization

#### **MyComputerCareer**

Contact(s): Joseph King 346 Raleigh Street Holly Springs, NC 27540 United States Telephone: +1 919-440-5951 Email: josephk@mycomputercareer.edu Website: www.mycomputercareer.edu/military

MyComputerCareer is an accredited college for aspiring IT professionals. Founded in 2007 in NC with a focus on career development through certification, the school now serves over 4000 students nationwide at seven campuses and its LIVE ONLINE program. MyComputerCareer has been serving active and veteran military members since inception. Veterans may use GI Bill and other VA benefits to attend. The school recently launched Cyber Warrior Training to serve IT professionals within the armed forces.

Categories: Cyber Security, IT; Computing and Software

Booth: 514 **National Robotics Engineering Center** Contact(s): Robert Toth 10 40th Street Pittsburgh, PA 15201-3209 USA Telephone: +1 412-683-4147 Email: rtoth@nrec.ri.cmu.edu Website: https://www.nrec.ri.cmu.edu/nrec/

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Categories: Universities and Educational Organizations, Unmanned Systems

**Neya Systems** 

Booth: 211

Contact(s): Kurt Bruck 555 Keystone Drive Warrendale, PA 15086 United States Telephone: +1 617-505-9257 Email: kurtb@neyasystems.com Website: nevasystems.com

Neya Systems, LLC, is a 40-person unmanned systems company in Warrendale (Pittsburgh), PA. Our expertise includes off-road autonomy in unstructured natural environments, multi-robot mission planning and collaboration, interoperability, and open architectures. Neya works with Government and industry customers to provide custom autonomy solutions to challenging outdoor problem. Neya is a wholly owned subsidiary of Applied Research Associates.

Categories: Unmanned Systems

**Booth: 512** 

**PacStar** Contact(s): Charlie Kawasaki 15055 SW Sequoia Parkway, Suite 100 Portland, OR 97224 United States Telephone: +1 503-403-3000 Email: info@pacstar.com Website: pacstar.com

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Categories: Communications Systems and Equipment, Cyber Security

#### Perkins Technical Services, Inc. Contact(s): Sheila Cain 1318 B Putman Dr.

**Booth: 209** 

Huntsville, Alabama 35816 USA Telephone: +1 256-539-6787 Email: info@pts-inc.com Website: www.pts-inc.com

Perkins Technical Services, Inc. manufactures and integrates components of the tactical radio Expeditionary Kit (E-Kit<sup>TM</sup>) enabling Soldiers to quickly establish tactical communications in a Command Post (CP). Components of the E-Kit<sup>™</sup> include a radio power supply docking station, a portable DC power supply, an integrated mast/antenna and a cross-banding capability. The E-Kit<sup>™</sup> provides Soldiers operational radios in a CP in 15 minutes or less and supports currently fielded tactical radios.

Categories: Electrical Equipment; Batteries and Power Supply

#### Polaris Government & Defense Contact(s): Laurie Jacobsma

2100 Highway 55 Medina, MN 55340 USA Telephone: +1 763-542-1338 Email: laurie.jacobsma@polaris.com Website: polaris.com/gov

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Categories: Military and Special Purpose Vehicles, Unmanned Systems

### Quantum Signal, LLCBooth: 508Contact(s): Dr. Mitchell Rohde200 N. Ann Arbor Street

Saline, MI 48176 United States Telephone: +1 734-429-9100 Email: rohde@quantumsignal.com Website: www.quantumsignal.com

Quantum Signal (QS) is an advanced engineering research and product development firm, with special expertise and experience in mobile robotics, autonomy, augmented and long-range teleoperation, perception and control, and real-time modeling and simulation. QS is the creator and core developer of the ANVEL UGV engineering simulation toolset, which is used worldwide to develop robust, safe, and effective robotic capabilities. For more information, see quantumsignal.com or anvelsim.com.

Categories: Command and Control Systems and Components (C41), IT; Computing and Software, Training and Simulation, Unmanned Systems

#### Soar Technology, Inc.

**Booth: 306** 

Booth: 400

Contact(s): Lindsay Bayles 3600 Green Court Suite 600 Ann Arbor, MI 48105 USA Telephone: +1 734-887-7609 Email: lindsay.bayles@soartech.com Website: www.soartech.com

SoarTech is an AI company based in Ann Arbor, MI. Since 1998, we've modeled human behavior for the U.S. DoD to create software that "thinks the way people think:" constantly learning, getting smarter, and adapting to land, air, sea and cyber environments. Our computational cognitive architecture powers autonomous software agents that can reason over large amounts of human-level knowledge. The end result for users is a system that is not just a tool in their hands, but a thinking partner.

Categories: Command and Control Systems and Components (C4I), Cyber Security, Training and Simulation, Unmanned Systems

#### **Systel Rugged Computers**

**Booth: 205** 

Contact(s): Aneesh Kothari 1655 Industrial Boulevard Sugar Land, TX 77478 USA Telephone: +1 281-207-7781 Email: akothari@systelusa.com Website: www.systelusa.com

Systel is a rugged computer manufacturer, offering next-generation computing solutions enabling machine learning and artificial intelligence capability. Systel has 30 years of experience in providing complex and advanced computer technologies supporting numerous programs and platforms, including some of the most advanced military vehicles. Systel's rugged high-density mission computers act as a single LRU for multi-sensor data fusion, edge computing, and network distribution and storage.

Categories: Command and Control Systems and Components (C4I), Communications Systems and Equipment, Data Recording and Storage, Electronics; Subsystems and Components, IT; Computing and Software, Rugged Computers; Workstations and Peripherals **Tactical Defense Media** Contact(s): SoniaB@tacticaldefensemedia.com PO Box 12115, Leisure World Plaza Silver Spring, MD 20908-0115 USA Telephone: +1 301-974-9792 Email: SoniaB@tacticaldefensemedia.com Website: www.tacticaldefensemedia.com

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Categories: Technical Publications and Media

#### U.S. Army Tank Automotive Research,

Development and Engineering Center Contact(s): Doug Halleaux 6501 E. 11 Mile Rd. ATTN: RDTA-COS-CO Warren, MI 48397-5000 United States Telephone: +1 586-282-8543 Email: douglas.g.halleaux.civ@mail.mil Website: https://tardec.army.mil/

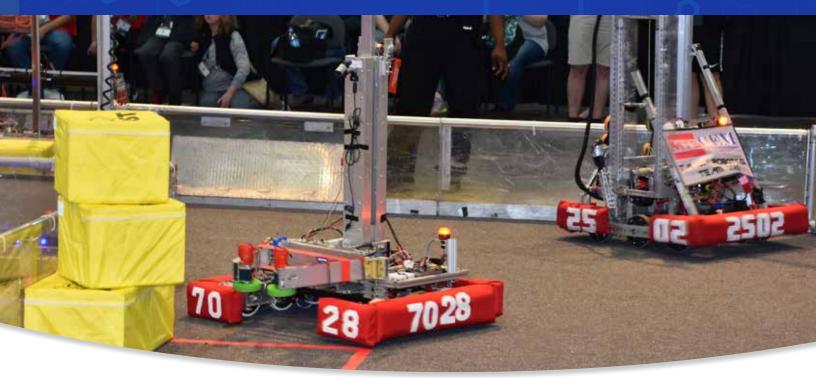
As the U.S. Army Research, Development and Engineering Command's Ground Vehicle Systems Center, U.S. Army TARDEC is the Department of Defense's foremost research, development and engineering center for ground vehicle technology. Headquartered at Detroit Arsenal in Warren, Michigan, TARDEC is the Army's lead integrator for these emerging technologies onto ground vehicle systems and develops technology independently and with its collaborative partners in the defense and automotive industries.

Categories: Armoured Fighting Vehicles and Upgrades, Government Organization, Military and Special Purpose Vehicles, Military Vehicle Parts and Spares, Unmanned Systems

Booth: 406

**Booth: 312** 

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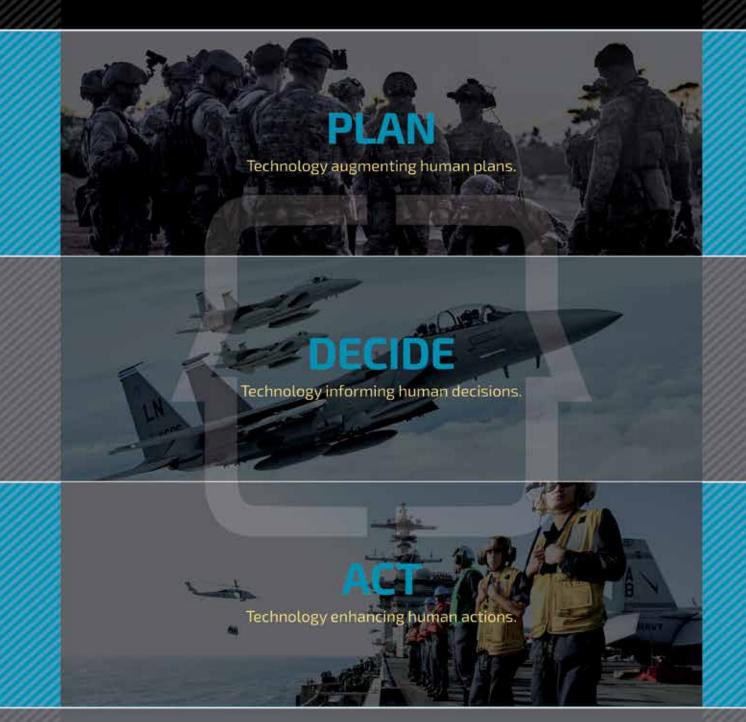
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