

# 2024 HUMAN SYSTEMS CONFERENCE

Next Generation Platforms and the Evolving Role of the Human

March 21 - 22, 2024 | Arlington, VA | NDIA.org/HS24

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The National Defense Industrial Association is the trusted leader in defense and national security associations. As a 501(c)(3) corporate and individual membership association, NDIA engages thoughtful and innovative leaders to exchange ideas, information, and capabilities that lead to the development of the best policies, practices, products, and technologies to ensure the safety and security of our nation. NDIA's membership embodies the full spectrum of corporate, government, academic, and individual stakeholders who form a vigorous, responsive, and collaborative community in support of defense and national security. For more than 100 years, NDIA and its predecessor organizations have been at the heart of the mission by dedicating their time, expertise, and energy to ensuring our warfighters have the best training, equipment, and support. For more information, visit NDIA.org

#### Get Involved

Learn more about NDIA's Divisions and how to join one at NDIA.org/Divisions



### Human Systems Who We Are

#### Leadership and Committees

Lillian Asiala, PhD **Division Chair** 

Stuart Michelson, PhD **Deputy Chair** 

NDIA's Human Systems Division promotes the exchange of technical information and discussions between government, industry, and academia, and the expansion of research and development in areas related to the human as a system whose performance must be integrated into any military systems. To this end, the division will serve as an infrastructure by providing a variety of ways for government, industry, and academia to collaborate to advance human performance in air, land, sea, space, and cyberspace through research, education, and consultation.



## Welcome to the Human Systems Conference

On behalf of the NDIA Human Systems Division, we welcome you to the Human Systems Conference!

The mission of the NDIA Human Systems Division is to advocate for the expansion of research and development in areas related to the human as a system, particularly in contexts in which the human must be integrated into a "system of systems." This conference provides representatives from Government, industry, and academia the opportunity to exchange technical information, learn about ongoing HSI-related research and development efforts, discuss advocacy efforts, and advance human performance in air, land, sea, space, and cyberspace.

The theme for the 2024 conference is "Next Generation Platforms and the Evolving Role of the Human." The role of the human within a system evolves as technology progresses. The ever-changing dynamic between humans and machines requires the involvement of the end-user across the entire product lifecycle, including concept development, implementation, delivery, and maintenance. This year, we will hear from several speakers about ongoing efforts to integrate consideration of the human in the technology-development process. Additionally, advances in policy to incorporate Human Systems Integration (HSI) planning in defense acquisition (such as the publication of DOD Instruction 5000.95) require supportive and informative discourse about how HSI can maximize the efficacy of DOD platforms across their lifecycles. This year, the conference will feature spoken presentations and panel discussions related to the implementation of HSI within defense platforms. We will also feature a briefing on a collaborative effort between the Division and the DoD's Joint HSI Working Group to expand an "HSI Practitioners' Frequently Asked Questions" list hosted on the DAU website. This list offers HSI guidance for designers and members of the acquisition community. Finally, we will hear from industry, Government, and academic partners about ongoing HSI work and how the evolving role of humans leads to new dynamics between warfighters and the systems they use. Some of the topics we can look forward to hearing about include Trust in Artificial Intelligence, Human-Machine Interfaces/Interaction, Virtual Reality Training, and Physiological Monitoring. Throughout the conference agenda, we have provided ample time for in-person networking.

Whether you submitted an abstract, served as a featured speaker or panelist, or supported conference-planning activities, we appreciate your contribution to the 2024 conference program. As we look toward the division's activities in 2025, we will continue our efforts to provide a space for advocacy and the exchange of information regarding the state-of-the-art in human systems integration. Please reach out to Stuart Michelson if you are interested in supporting the division.

We, the members of the Division, our speakers, panelists, presenters, and the Human Systems community, hope you find this year's conference to be a stimulating and worthwhile experience!

Lillian Asiala, PhD Chair, Human Systems Division

**Stuart Michelson, PhD** Deputy Chair, Human Systems Division

# Schedule at a Glance

#### Thursday, March 21

Keynote Address 8:45 – 9:30 am

Advocacy & Metrics Panel 10:45 - 11:45 am

Plenary Presentation on HSI Challenges 1:00 - 1:45 pm

HSI Accessibility Panel 4:00 - 4:50 pm

#### Friday, March 22

**COI Overview** 8:40- - 9:10 am

PAE&T Session COI Brief 9:10 - 9:40 am

**PS&WP Session COI Brief** 12:10 - 12:40 pm

SI&CP Human Systems COI Brief 2:10 – 2:40 pm

# **Event Information**

Location	George Mason University Arl 3351 Fairfax Dr. Arlington, VA 22201	ington Campus	
WiFi	<ol> <li>Connect to MASON wirele</li> <li>Go to itservice.gmu.edu T</li> <li>Create an account to get of</li> </ol>	ss network using your device. ne self-registration portal will open. online.	
Attire	Civilian: Business Military: Uniform of the Day		
Survey and Participant List	You will receive via email a s conference. Please complete	urvey and list of participants (name and organization) after the the survey to make our event even more successful in the future.	
Event Contact	<b>Jenica Seguine</b> Meeting Planner (703) 247-2561 jseguine@NDIA.org	<b>Tommy Kienzle</b> Coordinator, Divisions (703) 247-2575 tkienzle@NDIA.org	
Harassment Statement	NDIA is committed to provid and verbal harassment. NDIA limited to harassment based sexual orientation. This polic meetings and events. Harass deliberate intimidation, stalk disruption of talks or other e Participants requested to cea failure will serve as grounds	ng a professional environment free from physical, psychological a will not tolerate harassment of any kind, including but not on ethnicity, religion, disability, physical appearance, gender, or y applies to all participants and attendees at NDIA conferences, sment includes offensive gestures and verbal comments, ng, following, inappropriate photography and recording, sustained vents, inappropriate physical contact, and unwelcome attention. ase harassing behavior are expected to comply immediately, and for revoking access to the NDIA event.	
Event Code of Conduct	NDIA's Event Code of Conduct applies to all National Defense Industrial Association (NDIA), National Training & Simulation Association (NTSA), Emerging Technologies Institute (ETI), and Women In Defense (WID) meeting-related events, whether in person at public or private facilities, online, or during virtual events. NDIA, NTSA, ETI, and WID are committed to providing a productive and welcoming environment for all participants. Visit <u>NDIA.org/CodeOfConduct</u> to review the full policy.		
Antitrust Statement	NDIA has a policy of strict co prohibit competitors from en of trade. Consequently, NDIA together at formal association informal contacts with other terms or conditions of sale (in markets or customers or divi customers or other third parr particular supplier, customer	empliance with federal and state antitrust laws. The antitrust laws gaging in actions that could result in an unreasonable restraint members must avoid discussing certain topics when they are on membership, board, committee, and other meetings and in industry members: prices, fees, rates, profit margins, or other ncluding allowances, credit terms, and warranties); allocation of sion of territories; or refusals to deal with or boycotts of suppliers ties, or topics that may lead participants not to deal with a or third party.	

# Agenda

### Thursday, March 21

7:30 am - 5:00 pm Registration

ART GALLERY

- 7:30 8:30 am Networking Breakfast MULTIPURPOSE ROOM
- 8:30 8:45 am Welcome and Introductory Remarks AUDITORIUM

Lillian Asiala, PhD Chair Human Systems Division, NDIA Cognitive Scientist, Sonalysts, Inc.

### 8:45 - 9:30 am Keynote Address

AUDITORIUM

Blaine Summers Director, Joint Simulation Environment, Naval Air Warfare Center Aircraft Division

9:30 - 10:15 am Platform Highlight AUDITORIUM

Mary Quinn, PhD, PMP Human Systems Chief Scientist, Leidos

- 10:15 10:45 am Networking Break MULTIPURPOSE ROOM
- 10:45 11:45 am Advocacy & Metrics Panel

AUDITORIUM

**Ben Schwartz** Vice President of Human-Centered Engineering, Monterey Technologies, Inc. *Moderator* 

Joseph Lyons, PhD Senior Scientist for Human-Machine Teaming, Air Force Research Laboratory

**CDR Brennan Cox, USN, PhD** Human Systems Integration Capability Manager, USSOCOM

#### Edwin Bundy, PhD

Program Manager (GS-15), Irregular Warfare Technical Support Directorate

11:45 am – 1:00 pm	Networking Lunch MULITPURPOSE ROOM
1:00 – 1:45 pm	Plenary Presentation on HSI Challenges
	<b>Chris DeLuca</b> Director, Specialty Engineering, OUSD(R&E)
1:45 – 2:30 pm	JHSIWG CBA Overview
	Napoleon Gaither Program Analyst, U.S. Army Futures Command, DEVCOM Science & Technology Directorate
2:30 - 3:30 pm	Poster/Demo Session and Refreshment Break

BAE SYSTEMS

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MULTIPURPOSE ROOM

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3:30 - 4:00 pm

#### HSD Support of the Joint HSI Working Group: HSI Frequently Asked Questions

AUDITORIUM

#### Hank Phillips

Director, LVC Simulation, Soar Technology

#### Scott Kozak

President, NeuroTracker

#### 4:00 - 4:50 pm

### Making HSI Accessible to Everyone – Why It Matters and How We Do It

AUDITOR

#### Ana Borja

Human Systems Integration, Human Factors Engineering Technical Warrant Holder, Naval Information Warfare Systems Command

#### Daniel Wallace, PhD

Human Factors Engineering Technical Warrant Holder, Naval Sea Systems Command (NAVSEA) 05W

#### Jim Pharmer, PhD

Chief Scientist, Human Systems Engineering Department, Naval Air Warfare Center Training Systems Division

#### Gordon Gattie, PhD

Human Systems Integration Technical Warrant Holder, Naval Sea Systems Command

#### 4:50 - 5:00 pm Closing Remarks

AUDITORIUM

Lillian Asiala, PhD Chair Human Systems Division, NDIA Cognitive Scientist, Sonalysts, Inc.

#### 5:00 - 6:30 pm Networking Reception MULTIPURPOSE ROOM

### Friday, March 22

- 7:30 am 3:45 pm Registration
- 7:30 8:30 am Networking Breakfast

8:30 - 8:35 am Welcome and Introductory Remarks AUDITORIUM

> Brig Gen Guy Walsh, USAF (Ret) Executive Vice President, NDIA

8:35 – 8:40 am	Introduction to Day's Proceedings
	<b>Stuart Michelson, PhD</b> Deputy Chair Human Systems Division, NDIA Senior Research Scientist, Georgia Tech Research Institute
8:40 – 9:10 am	COI Overview
	<b>Gaurav Sharma, PhD</b> Chief Scientist of the 711th Human Performance Wing, Air Force Research Laboratory, Wright-Patterson Air Force Base
Session 1: Pe AUDITORIUM Moderator: Hank Phil	ersonalized Assessment, Education, and Training (PAE&T)
9:10 – 9:40 am	PAE&T Human Systems COI Brief
	Elizabeth Uhl, PhD PAE&T Subarea Lead, Human Systems COI Senior Research Psychologist, U.S. Army Research Institute
9:40 – 10:00 am	Enhancing Pilot Selection: Assessing a New Way to Measure Spatial Orientation in the Test of Basic Aviation Skills
	Cadet Adedapo Adeboyejo, USAF 2024 Class President, United States Air Force Academy
	Cadet Ryan Trevino, USAF Cadet, United States Air Force Academy
10:00 – 10:30 am	Networking Break
10:30 – 10:50 am	Algorithmic Scenario Generations for Robust Human-Machine Interaction
	<b>Stefanos Nikolaidis, PhD</b> Professor, University of Southern California
10:50 – 11:10 am	SAE G-45 HSI Committee Process Standards at HSI and Domain Levels
	Eric Stohr Senior Human Factors System Engineer, Basic Commerce & Industries
11:10 am - 12:10 pm	Networking Lunch

Session 2: Protection, Sustainment, and Warfighter Performance (PS&WP)

Moderator: Brad Chedister, Chief Technology and Innovation Officer, DEFENSEWERX

12:10 - 12:40 pm	PS&WP Human Systems COI Brief
	<b>Logan Williams, PhD</b> PS&WP Government Co-Chair, Human Systems Division, NDIA Lead, Human Performance Medical Product Area, Air Force Research Laboratory
12:40 – 1:00 pm	Understanding the Implications of Cyber-Relevant Cognitive Vulnerabilities and Their Impacts on Protecting Space and Flight Systems from Cyber Attacks
	Lori Coombs Senior Principal Technical Manager, NASA
1:00 – 1:20 pm	A Scalable Architecture for Integration of Flexible Hybrid Electronics Into Smart Textiles to Support Warfighter Monitoring, Communication, and Performance
	<b>Jeffrey Bergman</b> Engineering Manager, Nextflex
1:20 – 1:40 pm	Exoskeletons: Practical Defense Applications for Wearable Robotics
	Tim Swift, PhD Founder & CEO, Roam Robotics

1:40 - 2:10 pm Networking Break MULTIPURPOSE ROOM



## WOMEN IN DEFENSE 2024 National Conference

September 24, 2024 | Arlington, VA WomenInDefense.net



AUDITORIUM	System Interfaces & Cognitive Processes (SI&CP)			
Moderator: Mary Quinn, PhD, PMP, Human Systems Chief Scientist, Leidos				
2:10 – 2:40 pm	SI&CP Human Systems COI Brief			
	<b>Mark Draper, PhD</b> SI&CP Government Co-Chair, Human Systems Division, NDIA Lead Adaptive Warfighter Interfaces Core Technical Competency, Air Force Research Laboratory			
2:40 – 3:00 pm	Understanding Trust in Next-Generation Human Systems Integration			
	<b>Janine Mator</b> Behavior Research Scientist, Leidos			
3:00 – 3:20 pm	Improving Individual Trust in AI Systems by Exploiting Pre-Cooked Methods			
	Stephen Gordon, PhD Operations Manager, DCS Corporation			
3:20 - 3:40 pm	Creating a Cognitive Load Tool (COLT) for Neuroadaptive Interfaces			
	<b>Kyle Hickerson</b> Human Factors Intern, Leidos			
	<b>Ethan Irby</b> Junior Data Scientist, Leidos			
3:40 – 3:45 pm	Closing Remarks			

NDIR

#### Eric Sikorski

Lead Human Centered Engineer - Group Lead, MITRE

## 2024 MISSILE DEFENSE CONFERENCE

and Ronald Reagan Missile Defense Award Ceremony

### **REGISTER TODAY!**

April 16 - 17, 2024 | Washington, DC | NDIA.org/MDC







# 2024 Department of the Air Force Modeling and Simulation Summit

## **TRAINING IN A DIGITAL WORLD**

This year's theme, *Training in a Digital World*, highlights the Department of the Air Force's drive to upskill personnel through digital training. The goal of the M&S Summit is to gather Air Force and Space Force M&S experts to learn about new M&S initiatives and techniques, network across military services and with industry experts, and to hear our technological leaders' perspectives on how M&S can transition more training from the real world to digital.

The 2024 DAF M&S Summit will provide a forum for shared information, ideas, and connection of M&S professionals across the DoD, industry, academia, and international partners. The three-day summit agenda includes:

- Eminent Keynote Speakers from Military, Government, and Industry Leaders
- Distinguished Panel Discussions and Q&A sessions
- Track Session Presentation Focus Areas

- VIP Tour for Distinguished Visitors
- M&S Industry Exhibition Hall
- Classified M&S Briefing Sessions
- M&S Tool Overview





# Biographies



#### **Blaine Summers**

#### Director, Joint Simulation Environment

Mr. Blaine Summers serves as the Director for the Joint Simulation Environment (JSE).

He leads a large cross-discipline team in the development of a high fidelity, Governmentowned digital battlespace. JSE currently enables F-35 Initial Operational Test and Evaluation and provides world-class training for F-35 Weapon Schools and operational squadrons. Blaine represents Navy equities in joint USN-USAF leadership forums, shaping multi-billion dollar investments in support of warfighter needs.

Blaine began his Federal career supporting numerous DoD and Intelligence Community partners, leading teams in the rapid development and deployment of communication systems to tens of thousands of worldwide users.

Blaine forged partnerships across the DoD, founding a Cross-Service Working Group with members from all military branches, enhancing collaboration and aligning DoD investments in mobile technologies. Blaine's efforts resulted in a multi-platform flight clearance to enable rapid fielding of modified commercial technology to over 40 Naval aviation platforms. His accomplishments include delivering 715 mission planning and tactical execution assets to the F/A-18 community.

Blaine authored the Acquisition Strategy for an ACAT II unmanned systems program of record. His aggressive tailoring approach provided a strong foundation for program execution, ultimately securing \$225M in program funding across the FYDP.

Blaine then served as the Future Capabilities Lead in PMA-299, Multi-Mission Helicopters. He was responsible for warfare analysis, requirements identification, resource planning, and future capability development for multiple ACAT IC programs. Blaine served a key leadership role in negotiating a \$1.1B Capability Assurance Program with the Royal Australian Navy, establishing an international partnership to ensure continued investment in MH-60 tactical superiority. Blaine most recently served as NAVAIR's Enterprise Deployment Lead for Systems Engineering Transformation. He was responsible for implementing digital engineering strategies across several Major Defense Acquisition Programs, leading an effort to transform Defense acquisition culture and dramatically increase the speed with which weapons systems are delivered to the fleet.

Blaine's education includes a Bachelor of Science degree in Computer Engineering from the University of Maryland Baltimore County, a Master of Science degree in Engineering Management from the Florida Institute of Technology, and a Graduate Certificate in Cyber Warfare from the Naval Postgraduate School. He is Defense Acquisition University Level 3 certified in Program Management and Engineering. Blaine is a graduate from the Executive Leadership Program and NAVAIR's Leadership Development Program.



#### Chris DeLuca

#### Director, Specialty Engineering, OUSD(R&E)

Mr. DeLuca has over 39 years of experience in DOD as a U.S. Army Colonel (R) and DoD GS-15/

NH-IV Civilian, Level III qualified in Program Management, Systems Engineering and Test and Evaluation. His current assignment includes the following Specialty Engineering disciplines: Reliability & Maintainability; Manufacturing & Quality; Human Systems Integration; System Safety; and, Value Engineering. As a U.S. Army commissioned officer, he was in combat arms and acquisition, holding multiple command, leadership and staff positions including unit command, Army Program Acquisition Management Charters for Major (MDAP) and Non-Major (including rapid equipping and provisioning) Defense Acquisition Programs, and served on the Army Staff. As a DOD Civilian, Mr. DeLuca served as a Deputy Program Manager for a Major Automated Information System (MAIS)/ Defense Business System (DBS), directed systems engineering and developmental test and evaluation analysis teams at OSD for Space, Land Warfare and C4ISR MDAPs, MAIS and DBS programs, and served as the USD(R&E) Member of the Secretary of Defense Electromagnetic Spectrum Operations Cross Functional Team before his current assignment as Director, Specialty Engineering.



#### CDR Brennan Cox, USN, PhD

#### Human Systems Integration Capability Manager, USSOCOM

Commander Brennan D. Cox is the Human Systems Integration (HSI) Capability Manager for Special

Operations Forces, Acquisitions, Technology, and Logistics (AT&L), Science and Technology (S&T), at Headquarters, United States Special Operations Command. Here, he manages and supports biotechnology, human performance, and future-oriented S&T activities. Cox previously served as Deputy Director of the Naval Aerospace Medical Research Laboratory at Naval Aerospace Medical Research Laboratory at Naval Medical Research Unit Dayton, Assistant Professor of Operations Research at the Naval Postgraduate School, Head of Research Operations at the Naval Health Research Center, and Division Officer of Operational Psychology at the Naval Aerospace Medical Institute. Throughout his career, he has engaged in research, consultation, and applied practice of HSI, with expertise in the personnel and training domains. He holds a PhD in Industrial and Organizational Psychology and an Executive Master of Business Administration, along with several defense-oriented education certificates.



#### Joseph Lyons, PhD

#### Senior Scientist for Human-Machine Teaming, Air Force Research Laboratory

Joseph B. Lyons, a member of the scientific and professional cadre of senior executives,

is the Senior Scientist for Human-Machine Teaming, 711th Human Performance Wing, Human Effectiveness Directorate, Air Force Research Laboratory, Wright-Patterson AFB, Ohio. He serves as the principal scientific authority and independent researcher in the research, development, adaptation, and application of Human-Machine Teaming.

Dr. Lyons began his career with the Air Force in 2005 in the Human Effectiveness Directorate, Wright-Patterson AFB, Ohio. Dr. Lyons has served as a thought leader for the DoD in the areas of trust in autonomy and Human-Machine Teaming. Dr. Lyons has published over 100 technical publications including 64 journal articles in outlets focused on human factors, human-machine interaction, applied psychology, robotics, and organizational behavior. Dr. Lyons also served as Co-Editor for the 2020 book, Trust in Human-Robot Interaction. Dr. Lyons is an AFRL Fellow, a Fellow of the American Psychological Association, and a Fellow of the Society for Military Psychologists. Prior to assuming his current position, Dr. Lyons served as a Program Officer for the Air Force Office of Scientific Research and was a Principal Research Psychologist within the Human Effectiveness Directorate.



#### Edwin Bundy, PhD

#### Program Manager (GS-15), Irregular Warfare Technical Support Directorate

Dr. Bundy manages the Explosive Ordnance Disposal/ Explosives Operations (EOD/EXO) Subgroup

for the Irregular Warfare Technical Support Directorate (IWTSD) within the U.S. Department of Defense. This directorate sits under the Assistant Secretary of Defense for Special Operations and Low Intensity Conflict (ASD SO/LIC). Dr. Bundy's current mission area focuses on developing advanced technologies for military Explosive Ordnance Disposal technicians and other personnel conducting high-risk explosives-related operations in irregular warfare and post-conflict environments. Dr. Bundy's expertise in the EOD, C-IED, UXO, and ERW arenas has been honed over a 40-year career spanning operational and research and development positions. Dr. Bundy is an advisor to the International Association of Bomb Technicians and Investigators (IABTI) and U.S. Bomb Technician Association (USBTA), and a federal liaison to the National Bomb Squad Commander's Advisory Board (NBSCAB). Dr. Bundy is a Certified International Post Blast Investigator (CIPBI), former U.S. Army Master Explosive Ordnance Disposal (EOD) technician and holds PhDs. in both Education and Forensic Science.

# **Sponsor Descriptions**

### BAE SYSTEMS

#### PREMIER

BAE Systems, Inc. and its 35,000 people are part of a global defense, aerospace and security company with 89,600 employees worldwide in more than 40 countries. We deliver products and services for air, land, sea and space, as well as advanced electronics, security, information technology solutions, and customer support and services. Our dedication shows in everything we create and deliver—from advanced electronic systems to cyber operations and intelligence analysis, from combat vehicles to naval weapons, and from ship maintenance and modernization to vehicle upgrades and services. We push the limits of possibility to provide a critical advantage to our customers where it counts.



#### **REGISTRATION & LANYARD**

Monterey Technologies, Inc. is a human engineering and software services company focused on applying human-centered systems engineering to the design and development of complex, critical systems. Our unique and valuable expertise in human factors engineering, human systems integration, and mission planning software development, testing, and integration enables warfighters and end-users to make better decisions faster. Spanning the continuum of Research, Analysis, Design, and Development, our human-centered approach to problem-solving ensures that we understand the human dimension before recommending technology solutions.



#### Digital Adoption Platform

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WalkMe (WKME) pioneered the world's leading Digital Adoption Platform (DAP) so companies can effectively navigate the constant change brought on by technology. With WalkMe, organizations drive enterprise productivity and reduce risk by ensuring consistent, responsible, and efficient adoption of software and the workflows it powers. Our Al-driven platform sits on top of an organization's tech stack, identifies where people experience friction, and delivers the personalized guidance and automation needed to get the job done, right in the flow of work. Customers like IBM, Nestle, ThermoFisher Scientific, and the U.S. Dept. of Defense trust WalkMe to create the people-centric experiences required to boost the effectiveness of their workflows and maximize software ROI.

# leidos

#### **NETWORKING RECEPTION**

Leidos is a Fortune 500® innovation company rapidly addressing the world's most vexing challenges in national security and health. The company's global workforce of 47,000 collaborates to create smarter technology solutions for customers in heavily regulated industries. Headquartered in Reston, Virginia, Leidos reported annual revenues of approximately \$15.4 billion for the fiscal year ended December 29, 2023. For more information, visit www.leidos.com.



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#### **SMALL BUSINESS ELITE**

KPERFORM<sup>™</sup> is a Brain Health & Longevity, Experiential & Exponential Technologies Company, which has introduced a new performance category integrating BRAINBODYVOICE<sup>™</sup> (BBV) Systems for Operational Readiness. In simple terms, BBV Systems upgrades the human operating system by integrating the vocal process and is held to the highest thresholds and integrity of special operations warfighter performance, the most elite in human performance of our modern times. KPERFORM<sup>™</sup> concentrates on human performance optimization, injury prevention and early disease intervention [HPOIPeDI] utilizing BBV Systems-based algorithms for the benefit of all, agnostic of age, gender, fitness level and belief systems.

# **Poster Session**

### Thursday, March 21

2:30 - 3:30 pm

#### Analyzing Variability in Decision Making in Complex Systems: A Case Study

Erica Barhorst-Cates, PhD Monterey Technologies, Inc.

#### Initiative in Dyadic Bomb Defusal Task Using Granger Causality Methods

Kevin King DCS Corporation

### Physiological and Behavioral Synchronization in Dyads Performing Complex Tasks

Stephen Gordon, PhD DCS Corporation

#### The Role of the Vocal Process in Human Performance Optimization and Warfighter Operational Readiness

Veera Asher, PhD KPERFORM

#### Using Emulation to Accelerate the Development of Wearable Machines

Josh Caputo, PhD Humotech

#### Shaping the Future of Personalized Assessments: The Virtual Reality Revolution

Tarcan Kiper Neo Auvra

#### Simulation of Laser Dazzle and Laser Eye Protection Effects in Virtual Reality

Joseph Arizpe, PhD SAIC

Jake McKenna SAIC

#### Development and Evaluation of an AI/ML Engine that Rapidly Translates Data into Actionable Intelligence

Claire Hughes Design Interactive

#### **Repairing Trust Within AI Teaming**

Cadet Benjamin Tat, USAF United States Air Force Academy

### Applying the Theory of Graceful Extensibility to the Design and Development of Autonomy

Alex Morison, PhD Mile Two

#### Cognitive Augmentation at the 2040 Horizon: Industry's Take from the NATO NIAG SG-278 Study

Sylvain Bruni Aptima

#### Human Centered Approach to Designing AI Teammates

Layla Akilan Mile Two

#### Sensor Interoperability for Cross Domain Decision Making

Nick Roder Tangram Flex

#### Neurophysiological-Auditory "Listen Receipts" for Enhanced Warfighter Communication

Christopher Smalt, PhD MIT Lincoln Laboratory

#### MBSE & UX: Improving Human Experience and Performance in Complex Systems

Lauryn Rody Monterey Technologies, Inc.

#### Advanced Data Processing and the Evolving Role of the Warfighter

Alec Leeseberg Velocity Explorations

### **NDIN** Leading the Way in Engagement, Networking, and National Defense

Plan Ahead for Success | 2024 Featured Meetings, Conferences, and Events



Dwight D. Eisenhower Award Dinner



MODSIM World 2024 May 20 – 22, 2024 | Norfolk, VA



Women In Defense 2024 National Conference September 24, 2024 | Arlington, VA



2024 Missile Defense Conference April 16 – 17, 2024\* | Washington, DC



Training & Simulation Industry Symposium (TSIS) 2024 June 12 – 13, 2024 | Orlando, FL



**2024 Future Force Capabilities Conference & Exhition** September 24 – 27, 2024\*\* <sup>(Distro D)</sup>

Virginia Beach, VA



DLA Supply Chain Alliance Conference & Exhibition

April 23 – 24, 2024 | Columbus, OH



Department of the Air Force Modeling & Simulation Summit 2024

May 7 – 9, 2024 | San Antonio, TX



2024 CBRN Defense Conference & Exhibition June 24 – 26, 2024 | Baltimore, MD



Emerging Technologies for Defense Conference & Exhibition

August 7 – 9, 2024 | Washington, DC



27<sup>th</sup> Annual Systems & Mission Engineering October 27 - 31, 2024 | Norfolk, VA



I/ITSEC 2024 December 2 - 6, 2024 | Orlando, FL

\*All Classified | \*\*Partially Classified

Visit NDIA.org/Events for more information on all of our meetings, conferences, and events