NTSA NATIONAL TRAINING AND SIMULATION ASSOCIATION
THE VOICE OF THE TRAINING & SIMULATION COMMUNITY

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INTERSERVICE/INDUSTRY TRAINING, SIMULATION & EDUCATION CONFERENCE

OPTIMIZING TRAINING: ENSURING OPERATIONAL DOMINANCE!

PROGRAM GUIDE

1 DECEMBER – 4 DECEMBER 2025 | ORLANDO, FLORIDA | WWW.IITSEC.ORG

NDIA

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WELCOME ATTENDEES OF I/ITSEC 2025!

As we begin I/ITSEC 2025, I am amazed by the significance of the date. The year 2025 has long been a milestone for technological aspirations, particularly those involving the transition of emerging technologies into practical applications. This year has seen a change in military operations from the expansion of autonomous systems, advanced connectivity, and artificial intelligence. Therefore, this year's conference theme, *Optimizing Training: Ensuring Operational Dominance* is particularly fitting.

Over the next week, we will explore innovative technologies and their global impact on training and simulation. Celebrating nearly six decades, I/ITSEC remains the largest modeling and simulation conference in the world, thanks to the dedication of many individuals.

I extend special thanks to the leadership from the U.S. Air Force and, for the first time co-leading, the U.S. Space Force. It has been a pleasure collaborating with Executives Col Cory Klopstein (USSF) and Mr. Rodney Stevens, SES (USAF), and their Principals, Mr. Heath Morton (USAF) and Mr. King Molder (USSF). Their year-long efforts have shaped this exceptional program.

Our gratitude also goes to our Program Chair, Dr. Kelly Hale, and the National Training and Simulation Association (NTSA), led by President VADM Sean Buck, USN (Ret.), and Senior Vice President Ms. Debbie Langelier, whose leadership ensures the unparalleled value of I/ITSEC.

Additional appreciation is owed to our service executives: CAPT Rob Betts (USN), Col Wynndee Young (USMC), Mr. Lee James (USA), and LTC Paul Kunnas (OSD), along with their service principals, Mr. Matt Williams (USN), Mr. Mike LeMorta (USMC), Ms. Debra Dawson (USA), and Ms. Gina Tyrrell (OSD). Their coordination has brought together expert panels, insightful presentations, and critical policy perspectives.

We also acknowledge the efforts of over 300 volunteers from government, industry, and academia who have meticulously reviewed submissions to ensure the high quality of our presentations, tutorials, and workshops. This year's conference will again feature special sessions with congressional members, senior military leaders, and industry and academic experts, providing insights into the future of modeling, simulation, and training. Our Next Big Thing series promises a visionary look into how future concepts can become reality.

Our theme resonates across our military and among our allies and partners, who also leverage simulations to enhance decision-making and operational readiness. In facing diverse adversarial challenges, this conference highlights the innovation and research essential to our national defense.

I look forward to engaging with you this week and hope you take full advantage of the professional development and networking opportunities.

Welcome to I/ITSEC 2025.

Anne Little, Ph.D.

I/ITSEC 2025 Conference Chair

WELCOME ATTENDEES OF I/ITSEC 2025!

I am excited for you to participate in an outstanding five-day experience here at I/ITSEC! Our team of volunteers have prepared a full week of events and engagement opportunities across our modeling and simulation community focused on training and education solutions. This year's lead services, the Department of the Air Force, their Service Executives and Principals, in collaboration with NTSA, and the 300+ volunteers from industry, government, and academia have worked hard for the past 12 months to prepare this great program. Alongside these volunteers, Dr. Anne Little, our I/ITSEC 2025 Conference Chair, and I have created a comprehensive agenda with 122 Technical Papers, 49 Special Events, 33 Tutorials, and 9 Professional Development Workshops.

This year's conference theme *Optimizing Training: Ensuring Operational Dominance* gets to the heart of the I/ITSEC mission. We are focused on designing, developing, evaluating, and transitioning training and educational solutions leveraging modeling and simulation capabilities that make a quantified difference in operations. By implementing user-centered technological advances, our solutions aim to optimize learning, retention, and real-time support at the point of need to ensure operational efficiency and effectiveness that leads to mission success.

Those new to I/ITSEC – welcome! I encourage you to engage early by attending our Monday Tutorials, Congressional Caucus, and I/ITSEC Fellows presentation. On Tuesday morning be sure to attend the Opening Ceremonies and Senior Leader Panel, and take in some engaging paper presentations, Next Big Thing sessions, and Special Events Tuesday afternoon through Thursday. Our Professional Development Workshops will be held on Thursday afternoon, providing focused, hands-on experiences to enhance your educational experience while at I/ITSEC. Don't miss the over 190,000 sq. ft. exhibit floor with over 400 organizations showing their latest technologies and training systems open throughout the week. Here on the floor, you can also experience our EcosySTEM of Learning and I/ITSEC's Serious Game Showcase & Challenge.
To keep your busy schedule organized, I encourage you to download the I/ITSEC 2025 app. Our role-based persona schedule builder can help you plan your week, set reminders, give needed feedback, and allow you to prioritize your I/ITSEC experience.

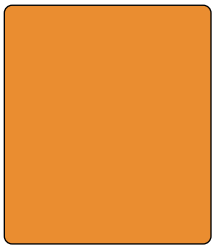
Please support our two charity events that will benefit the Camradarie Foundation and the I/ITSEC STEM initiative. The first is the Earle L. Denton Memorial Golf Tournament on Sunday, 30 November, and the second is our 5K Run/Walk/Roll which will start at 0630 on Wednesday, 3 December in front of the OCCC South Concourse.

I look forward to engaging with you throughout the week and supporting our community in showcasing the best of the best in modeling and simulation for training and education.

Kelly Hale

Kelly Hale, Ph.D.

I/ITSEC 2025 Program Chair



NAME
Title, Org

Bio

BOB RITCHIE
Chief Technology Officer, SAIC

BOB RITCHIE is the chief technology officer of the software practice with SAIC's Strategy, Growth, and Innovation group, leading over 4,000 software engineers and providing technical direction and expertise for the enterprise modernization initiatives of SAIC's customers. His responsibilities include the strategic roadmap and investments for the software practice, supporting customer programs with DevSecOps teams, and leading SAIC in the areas of cloud native development, application modernization, agile development, and intelligent software.

Ritchie joined SAIC in 2006 as a senior principal software engineer. He has led several agile teams in developing, modernizing, migrating, and operating resilient, highly available, enterprise-scale software systems in the U.S. Navy, Marine Corps, Air Force, and the Defense Logistics Agency.

Prior to SAIC, he served as director of software engineering at Capital One, where he provided technical direction within an engineering organization of over 500 employees spanning multiple areas of expertise. He oversaw and guided the successful completion of major programs, including the enterprise migration of over 400 distributed applications from legacy data centers to full cloud infrastructure. He instilled DevSecOps best practices and reusable artifacts throughout the software engineering practice, highlighted by co-founding the Capital One DevOps Guild, an organization-wide effort.

Ritchie earned his Bachelor of Science in computer engineering from Virginia Tech. He holds all nine AWS certifications.

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SENIOR LEADER PANEL

VICE ADMIRAL SEAN S. BUCK, USN (RET.)
President, National Training and Simulation Association (NTSA)

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Global defense forces today operate in an era of unpredictable budgets, rapidly evolving threats, and accelerating technological disruption. Militaries must remain prepared to operate and execute across a wide spectrum of missions—from humanitarian assistance and disaster relief to the increasing demands of near-peer competition. At the same time, nations are navigating both the opportunities and vulnerabilities presented by emerging technologies and persistent cybersecurity risks.

Our Senior Leader Panel will examine these challenges and opportunities within the framework of this year's theme: *Optimizing Training: Ensuring Operational Dominance*.

This distinguished panel brings together senior representatives from the U.S. Military Services, the Office of the Secretary of Defense, and key international allies. Following opening perspectives, the panel will move directly into an interactive conversation — fielding questions from the moderator and the audience. Attendees can also submit questions in advance for consideration..

This is more than a panel — it's a front-row seat to the strategies and priorities shaping tomorrow's force. A rare chance to hear directly from national and international defense leaders on the future of training, readiness, and deterrence. Don't miss the opportunity to gain first-hand insights into how our most senior decision-makers are shaping the way ahead.

CONFERENCE LEADERSHIP

CONFERENCE CHAIR

ANNE LITTLE, PH.D.
SAIC
I/ITSEC 2025
Conference Chair

ANNE LITTLE, PH.D., is the Director of Customer Experience Solutions at SAIC in Reston, VA. Anne joined SAIC in 2017 as a Senior Solutions Architect designing simulation-based training solutions for a variety of government agencies. She has also led internal research and design (IRAD) efforts for a variety of product development efforts, most recently a cloud-native video hosting platform for organizational knowledge sharing.

She is a recognized thought leader for incorporating Design Thinking processes to deliver innovative learning solutions that align to business performance outcomes. And in her current role, she relies on her expertise in AI prompt engineering to transform workforce upskilling solutions, leading to the rapid development of training assets and increased learner achievement.

Anne has been a member of the I/ITSEC community since 2010, serving several times as Subcommittee Chair. She also chaired the Knowledge Management subcommittee for four years, supporting NTSA in the selection and launch of a conference management system. She has authored several I/ITSEC papers and was a Best Paper nominee in 2018.

Anne spent more than a decade of her early career in academia, teaching Math and Computer Science, grading AP (Advanced Placement) Computer Science exams for the College Board, and managing instructional technology integration programs.

She earned her bachelor's degree in mathematics from Purdue University, and her Master of Education and Ph.D., both in instructional technology, from George Mason University.

PROGRAM CHAIR

KELLY HALE, PH.D.
Draper
I/ITSEC 2025
Program Chair

KELLY HALE, PH.D., is a Distinguished Human Factors Engineer and Manager of the User Experience and Performance Group at Draper, an independent, nonprofit company focused on engineering solutions for the nation's toughest problems. She has 25+ years' experience in program management, applied research and development, and deployment of technology-based human centered solutions for government and commercial clients. Her work has provided real-time, data-driven, multimodal solutions that leverage human signals and capabilities in perception, situation awareness and cognition integrated with emerging technologies such as wearables, eXtended Reality devices, AI/ML, and autonomous systems. Throughout her career, Kelly has promoted a multidisciplinary, user-centered approach to research and development, ensuring that those responsible for completing a mission can do so with the upmost expertise through personalized training and operational solutions. With the ever-increasing speed of technology innovation and explosion of available datasets, Kelly has adapted human systems practices and policies to ensure user-centered solutions can be effectively transitioned via integrated agile deployments with tailored design reviews and user feedback loops to ensure success in learning and training transfer, leading to achieved mission goals. Kelly has participated in I/ITSEC since 2001, first as a graduate student from the University of Central Florida and then as an Industry representative of both small and nonprofit businesses. She is proud to have served the last 14 years volunteering in I/ITSEC leadership positions. Kelly received her B.Sc. in Kinesiology/Ergonomics from the University of Waterloo, Ontario, Canada, and her M.S. and Ph.D. in Industrial Engineering: Human Factors from the University of Central Florida.

CONFERENCE SPONSOR

VADM SEAN S. BUCK, USN (RET.)
President, National Training and Simulation Association

Vice Admiral Sean S. Buck, USN (Ret.) is the President of the National Training and Simulation Association (NTSA). VADM Buck is a seasoned leader with over 40 years of experience in commissioned military service and higher education. He served as the 63rd Superintendent of the U.S. Naval Academy, where he led the institution through significant challenges, including the COVID-19 pandemic, ensuring continuous operations in support of its critical mission of developing the leaders of tomorrow for our nation. Throughout his career, he commanded at many levels, including as Commander of U.S. Fourth Fleet & Naval Forces Southern Command, where he was responsible for key security and humanitarian operations across the Americas. In his current role, VADM Buck leads NTSA in advancing the training, modeling, and simulation industry, representing and advocating for its membership that drives innovation in defense and technology sectors. His leadership extends to serving on advisory boards for Academy Securities, Synergist Technology, and First Command Financial Services, and contributing to the development of the U.S. Naval Academy's athletic programs. VADM Buck holds a Master's in Security Policy Studies from The George Washington University and has completed executive education at Harvard and MIT. His commitment to excellence continues to shape the future of training and simulation.

HON. DAVID L. NORQUIST
President and Chief Executive Officer, National Defense Industrial Association

The Hon. David L. Norquist is the President and Chief Executive Officer of the National Defense Industrial Association (NDIA). He has over 30 years of public and private sector experience in national security and federal financial management. This includes serving in three Senate confirmed positions: the Chief Financial Officer (CFO) of the Department of Homeland Security, the Under Secretary of Defense Comptroller/CFO and most recently the 34th Deputy Secretary of Defense. He began his career as a civil servant, supporting Army intelligence as a program/budget analyst with assignments on the Army staff, a major command, a defense agency, and at an overseas field site. Following his time with the Army, Mr. Norquist served for six years with the House Appropriations Subcommittee on Defense as a professional staff member. He later served for eight years as partner with Kearney and Company, a certified public accounting firm focused exclusively on the federal government. Mr. Norquist is a graduate of the University of Michigan, where he received a Bachelor of Arts in Political Science and a Master's Degree in Public Policy. He also holds a Master's Degree in National Security Studies from Georgetown University.

INTERSERVICE EXECUTIVES

U.S. AIR FORCE
SERVICE EXECUTIVE

MR. RODNEY STEVENS, a member of the Senior Executive Service, serves as the Program Executive Officer (PEO) for the Training Directorate, where he leads more than 1,500 personnel and manages a budget exceeding $7.4 billion. In this role, he provides strategic direction and senior-level oversight in the development, acquisition, and sustainment of simulation and training systems supporting nine Major Commands (MAJCOMs) and over twenty international partner nations. Mr. Stevens is responsible for delivering integrated, mission-ready training solutions that enhance warfighter readiness and coalition interoperability. His portfolio responsibilities include over 2,400 major weapon system simulators, advanced training capabilities such as the Joint Simulation Environment, the Air Force's newest pilot trainer the T-7A Red Hawk, and over 1,500 fielded legacy training aircraft such as the T-6, T-38 to name a few. Mr. Stevens was commissioned in 1999 from East Carolina University's ROTC Det 600 where he earned a Master of Business Administration from East Carolina University. He also holds a Master of Science in National Resource Strategy from the Eisenhower School, is a graduate of Air Command and Staff College and was a National Defense Legislative Fellow. Over his distinguished career, Mr. Stevens has held a variety of leadership positions, including serving as a two-time Deputy PEO, a Materiel Leader, Maintenance Operations Officer, along with several others on various Headquarter Staffs. He retired from the United States Air Force in the rank of Colonel.

U.S. SPACE FORCE
SERVICE EXECUTIVE

COLONEL COREY KLOPSTEIN, USSF is the Program Executive Officer (PEO), Operational Test and Training Infrastructure (OTTI), Space SystemsCommand, Los Angeles Air Force Base, Calif. Col. Klopstein leads acombined team of military, government civilians, and contractors attwo geographically separated units in the execution of a $4B+portfolio to create a robust, enduring OTTI. These advanced systemsprovide the foundation for High-End Advanced Test, Training, andTactics Development by all Guardians. As PEO OTTI, Col. Klopstein'sportfolio includes the National Space Test and Training Complex (NSTTC) and enterprise Space Training systems providinginterconnected, scalable, and distributed physical and digital rangesfor full-spectrum test and training capabilities for the joint warfighter. Col. Klopstein has served in a variety of acquisition, staff, andcommand assignments at many levels across the Space Force, AirForce, and Department of Defense. He recently served as Chief ofthe Analysis Branch in the Force Structure, Resources, andAssessment Directorate on the Joint Staff, Executive Officer to the Space and Missile Systems Center (SMC) Commander, Materiel Leader of the Enhanced Polar System, and Branch Chief on the UnitedStates Air Forces in Europe staff. Prior to this position, Col. Klopstein was the Senior Materiel Leader of the Warfighter Enterprise AcquisitionDelta. The Warfighter Enterprise team developed and fielded Cyber, Test, Training, and ElectromagneticSpectrum Operations (EMSO) capabilities to counter current and evolving threats within the space domain.

U.S. ARMY
SERVICE EXECUTIVE

BRIGADIER GENERAL CHRISTINE A. BEELER, USA, is the program executive officer (PEO) of the U. S. Army Program Executive Office Simulation Training and Instrumentation (PEO STRI) headquartered in Orlando. Florida. PEO STRI executes a multi-billion-dollar testing, training, and threat portfolio annually, and is staffed by more than 1,200 military, government civilian and service support contractors. The organization also manages a Foreign Military Sales program which supports more than 65 countries. Before assuming the charter as PEO, Brigadier General Beeler served as the commanding general of the U. S. Army Contracting Command (ACC) headquartered at Redstone Arsenal, Huntsville, Alabama. Prior to ACC, Brigadier General Beeler served as the Commanding General for the U.S. Army Mission and Installation Contracting Command at Joint Base San Antonio-Sam Houston, Texas. Brigadier General Beeler was a distinguished military graduate and commissioned as a second lieutenant in the Ordnance Corps through the Army ROTC program at Boston University in 1991, where she earned a Bachelor of Science in Business Administration. She began her Army Acquisition career in 2001, and is certified in Defense Contracting, Program Management and Logistics. Her advanced education includes a Master of Arts in Administration and Management from Bowie State University, Prince George's County, Maryland; a Master of Public Administration in Environmental Management from Jacksonville State University, Jacksonville, Alabama; and a Master of Business Administration from Webster University. Brigadier General Beeler's military education includes a Master of Science in Strategic Studies from the U.S. Army War College. She is a graduate of the U.S. Army Command and General Staff College.

U.S. NAVY
SERVICE EXECUTIVE

CAPTAIN ROB BETTS, USN, assumed command of NAWCTSD and NSA Orlando on May 15th, 2025. He is a 1999 graduate of the Georgia Institute of Technology and received his commission through NROTC. He also holds a master's degree in Modeling, Virtual Environments, and Simulations (MOVES) from the Naval Postgraduate School. Betts's major acquisition tours include deputy for the F-35 Lightning II Human Factors Integration Team and Joint Cockpit Working Group; integrated product team lead for the AIM-9X Block II and Block II+; assistant program manager for systems engineering for the F-35C; executive assistant to the F-35 Lightning II Program Executive Officer; program manager for F-35 Training Systems and Simulations; Ready Relevant Learning Training System Program Manager; and Naval Air Warfare Center Training Systems Division Executive Officer.

U.S. MARINE CORPS
SERVICE EXECUTIVE

COLONEL WYNNDEE M. YOUNG, USMC, a native of Oak Harbor, WA, brings a wealth of experience as the Program Manager for Training Systems (PM TRASYS). A graduate of Hampton University with a Bachelor of Science in Accounting, she commissioned in 2002 and since she honed her expertise in logistics and contracting through diverse assignments. Her career included roles as a Supply Officer in Okinawa, Japan, managing critical equipment transfers, and as the S-4 Officer at Camp Fuji, overseeing logistical support for training units. Transitioning to Parris Island, SC, she served as a Series and Company Commander, followed by a role as Headquarters and Service Battalion's S-4 Officer. After completing the Contracting Officer Course, she served as a Contingency Contracting Officer with Combat Logistic Regiment 27 and deployed to Afghanistan, managing construction and various contracts in Helmand Province. Colonel Young further served as a Contracting Advisor at II Marine Expeditionary Force and deployed with the Operational Coordination Center Regional Southwest Security Force Advise and Assist Team as a Supply Officer Advisor to the Afghan Army. After attending Marine Corps Command and Staff College, she directed the III MEF Regional Contracting in Okinawa, leading multinational exercise planning. She then served as Executive Officer, Combat Logistics Battalion 7. In 2018, she deployed to Iraq with Task Force Spartan, managing base operations support integration, including contracted support. Prior to assuming duty as the Program Manager for PM TRASYS, she shaped Operational Contract Support policy at Headquarters Marine Corps, then supported the Program Manager Wargaming Capability. As Deputy Program Manager for Communication Systems, she managed teams developing critical communication equipment. In April of 2023, Col Young assumed duty as the Program Manager for Wargaming Capability, she spearheaded efforts to enhance wargaming technology. Colonel Young holds a Master of Business Administration and a Master of Science in Military Studies.

OSD EXECUTIVE

LTC PAUL KUNNAS tbd

PRINCIPALS

SERVICE PRINCIPALS

HEATH MORTON
U.S. AIR FORCE
Training Systems Technical Advisor, Air Force Materiel Command (AFMC)

KING MOLDER
U.S. SPACE FORCE
Director of Engineering, Operational Test and Training Infrastructure (OTTI)

DEBRA A. DAWSON
U.S. ARMY
Office of the Director, Strategic Engagements, U.S. Army Combat Capabilities Developmental Command Soldier Center (DEVCOM SC)

MATT WILLIAMS
U.S. NAVY
Chief Strategist, Naval Air Warfare Center Training Systems Division (NAWCTSD)

MICHAEL LeMORTA
U.S. MARINE CORPS
Operations Manager, Program Manager for Training Systems (PM TRASYS), Marine Corps Systems Command (MARCORSYSCOM)

OSD PRINCIPAL

GINA TYRRELL
Office of the Under Secretary of Defense for Research and Engineering (OUSD(R&E)) & U.S. Army Transportation Systems Management and Operations (TSMO)

SERVICE BOOTHS

USAF	1239/149
USSF	1339
U.S. Army PEO STRI	1333/2135
PM TRASYS/TECOM	1233
NAWCTSD/U.S. Navy	1239/149

AGENDA

TIME	SESSION	LOCATION
WEDNESDAY • 26 NOVEMBER 2025		
0800	Exhibitor Registration Opens	South Concourse
1700	Exhibitor Registration Closes	
THURSDAY • 27 NOVEMBER 2025 • CLOSED FOR THANKSGIVING		
FRIDAY • 28 NOVEMBER 2025 AND SATURDAY • 29 NOVEMBER 2025		
0800	Exhibitor Registration Opens	South Concourse
1700	Exhibitor Registration Closes	
SUNDAY • 30 NOVEMBER 2025		
0800	Exhibitor Registration Opens	South Concourse
1200	Conference Registration Opens	South Concourse
1200	Satellite Registration Opens	Hyatt Regency Main Lobby
1800	All Registrations Close	
MONDAY • 1 DECEMBER 2025		
0700	Conference and Exhibit Registration Open	South Concourse
0730	Satellite Registration Opens	Hyatt Regency Main Lobby
0830 – 1000	**TUTORIALS** (Synopses begin on page 69)	
	General Generative AI – Applying Off-the-Shelf GenAI Tools to Wargaming	Room 330EF
	Navigating the AI Acceleration: Generative AI and Beyond	Room 310AB
	Machine Learning: An Introduction for Humans	Room 310CD
	Introduction to Defense Modeling and Simulation	Room 330AB
	A Practical Guide to Using Open Tools for Well-Defined Competencies — Learning Engineering of Multi-Platform, Multi-Domain, Mission-Ready Skills Definitions	Room 320A
	Signal Modeling: From Spectrum Analyzers to Mixed Reality	Room 320B
	DIS Tutorial	Room 320C
	Sensory Factors Underlying Cybersickness: Mechanisms and Implications	Room 320D
	Simulation Conceptual Modeling Theory and Use Cases	Room 320E
	Simulated Systems — Real ROI with Application to Future Systems	Room 320F
	Exercises and Experiments: How They Can Play in Campaigns of Learning	Room 320G
1030 – 1200	Signature Event: Congressional M&S Caucus	Room 330CDGH
1030 – 1200	**TUTORIALS** (Synopses begin on page 72)	
	Quantifying Training Value in the Age of Immersive Simulation	Room 330EF
	An Introduction to Cognitive Systems for Modeling & Simulation	Room 310AB
	Building the Bridge: Evolving V&V Methods to Address AI Driven Simulation	Room 310CD
	Live, Virtual and Constructive (LVC) Interoperability 101	Room 330AB
	Game Engines for Military Use 101	Room 320A
	Effective XR Space Domain Training for Guardian Proficiency	Room 320B
	Introduction to HLA 4 for the Cloud	Room 320C
	MedSim Academy	Room 320D
	Accreditation of Simulation-Based Experiments: Beyond the M&S	Room 320E
	Harnessing Physiology for Peak Human Performance in Training and Simulation	Room 320F
	End to End XR Training: Innovative Strategies for Seamless Content Generation and Trainee Engagement	Room 320G
1245 – 1415	**TUTORIALS** (Synopses begin on page 76)	
	Beyond the Hype: A Strategic Framework for Keeping Up with AI	Room 330EF
	Practical Use of (Emerging) Learning Technologies	Room 310AB
	Architecting Compound AI for Training and Augmenting Human-AI Teams	Room 310CD
	A Process for Distributed LVC Integration and Execution	Room 330AB
	Scenario-Centered Learning: Methods for Situational Training in a Volatile World	Room 320A
	From Simulation to Reality: Combatting Social Engineering with Serious Games	Room 320B
	Achieving Secure and Scalable Interoperability: OMG DDS for MOSA-Compliant LVC Training	Room 320C
	Minimizing Cybersickness in the Design, Implementation and Management of Learning Systems with Virtual Environments	Room 320D
	Simulation and the Cyber-Secure Hybrid Cloud (CSHC)	Room 320E
	But How Do You Know They Learned That?	Room 320F
	Building 3D Environments for Simulation: Standards and Best Practice	Room 320G

1400	**EXHIBITS OPEN**	Exhibit Hall
1430 – 1600	**FOCUS EVENT:** Certified M&S Professional 3.0	Room 320A
1530 – 1700	**FOCUS EVENT:** Black Swan — The Four Horsemen of AI	Room 330CDGH
1600 – 1730	**FOCUS EVENT:** 2025 I/ITSEC Fellows Presentation	Room 330EF
1600 – 1730	**FOCUS EVENT:** A Joint Service M&S Certificate for Learning Professional	Room 330AB
1800	**EXHIBITS CLOSE**	
1800	**ALL REGISTRATION STATIONS CLOSE**	

TUESDAY • 2 DECEMBER 2025

0700	**CONFERENCE AND EXHIBIT REGISTRATION OPEN**	South Concourse
0730	**SATELLITE REGISTRATION OPENS**	Hyatt Regency Main Lobby
0800 – 1030	**OPENING CEREMONIES** Call to Order • Presentation of Colors • National Anthem • Invocation **OPENING REMARKS** Anne Little, Ph.D., I/ITSEC 2025 Conference Chair **DAF KEYNOTE** Name Title, Company **INDUSTRY KEYNOTE** Bob Ritchie Chief Technology Officer, SAIC	Hyatt Windermere Ballroom
1030 – 1200	**SIGNATURE EVENT:** Senior Leader Panel	Hyatt Windermere Ballroom
1200	**EXHIBITS OPEN**	Exhibit Hall
1200 – 1330	**LUNCH** (Opening of Exhibits and Lunch will occur at 1200 or upon adjournment of the DAF Keynote)	Exhibit Hall
1400 – 1530	**PAPER SESSIONS** (Title/Author list begins on page 85. Session schedules for this time frame are on page 82.)	Room 320A-G
1400 – 1530	**SIGNATURE EVENT:** Modern & Emergent Technologies for SOF Readiness	Room 330AB
1400 – 1530	**SIGNATURE EVENT:** Conversation on Training with DAF Leaders	Room 330CDGH
1400 – 1530	**FOCUS EVENT:** The Future of Healthcare Simulation	Room 310CD
1400 – 1530	**NEXT BIG THING:** Future Concepts	Destination Lounge
1600	**SATELLITE REGISTRATION STATION AT HYATT REGENCY CLOSES**	
1600 – 1730	**PAPER SESSIONS** (Title/Author list begins on page 85. Session schedules for this time frame are on page 82.)	Room 320BDEF, 330EF
1600 – 1730	**SIGNATURE EVENT:** Breaking through Barriers	Room 330CDGH
1600 – 1730	**FOCUS EVENT:** Evolution of Military Healthcare Training — Senior Leader Perspectives	Room 310CD
1600 – 1730	**FOCUS EVENT:** Joint Senior Enlisted Panel	Room 310AB
1600 – 1730	**NEXT BIG THING:** Future Training Concepts	Destination Lounge
1600 – 1730	**COMMUNITY OF INTEREST:** Digital Environments Supporting DoD M&S, Training, Digital Engineering	Room 330AB
1700 – 1830	**EXHIBITOR NETWORKING EVENT**	Exhibit Hall
1800	**CONVENTION CENTER REGISTRATION CLOSES**	
1800	Senior Leaders Networking Hour and NTSA M&S Awards Dinner (INVITATION ONLY)	Hyatt Regency
1830	**EXHIBITS CLOSE**	

WEDNESDAY • 3 DECEMBER 2025		
0630	**5K WALK, RUN OR ROLL CHARITY RACE**	South Concourse
0700	**CONFERENCE AND EXHIBIT REGISTRATION OPEN**	South Concourse
0830 – 1000	**PAPER SESSIONS** (Title/Author list begins on page 85. Session schedules for this time frame are on page 83.)	Room 320ABCDEFG
0830 – 1000	**SIGNATURE EVENT:** Marine Corps General Officer Panel	Room 330AB
0830 – 1000	**FOCUS EVENT:** USSF Training & Operations Panel	Room 310AB
0830 – 1000	**COMMUNITY OF INTEREST:** Army Live Training — Current & Future	Room 310CD
0830 – 1000	**COMMUNITY OF INTEREST:** Acquisition Transformation – The Convergence of Test & Training	Room 330EF
0830 – 1000	**PROGRAM BRIEF:** USAF PEO Training: Acquisition Update	Room 330CDGH
0930	**EXHIBITS OPEN**	Exhibit Hall
1000 – 1130	**FOCUS EVENT:** Best from Around the Globe	Innovation Showcase
1030 – 1200	**PAPER SESSIONS** (Title/Author list begins on page 85. Session schedules for this time frame are on page 83.)	Room 320ABCDEFG
1030 – 1200	**SIGNATURE EVENT:** Navy Flag Officer Panel	Room 310AB
1030 – 1200	**SIGNATURE EVENT:** Cutting Edge Innovation – Rapidly Advancing M&S to Support Joint All-Domain Training	Room 330CDGH
1030 – 1200	**FOCUS EVENT:** Electromagnetic Spectrum Impacts on DOD Training	Room 330EF
1030 – 1200	**NEXT BIG THING:** Spatial Computing and World Modeling	Destination Lounge
1030 – 1200	**PROGRAM BRIEF:** PM TRASYS – Acquisition Update	Room 330AB
1200 – 1330	**LUNCH**	Exhibit Hall
1300 – 1600	**COMMUNITY OF INTEREST:** NTSA Career Fair at I/ITSEC	Room 210A
1330 – 1500	**PAPER SESSIONS** (Title/Author list begins on page 85. Session schedules for this time frame are on page 84.)	Room 320ABCDEF
1330 – 1500	**SIGNATURE EVENT:** Naval Aviation Flag Officer Panel	Room 310AB
1330 – 1500	**FOCUS EVENT:** Women in Modeling and Simulation	Room 330EF
1330 – 1500	**FOCUS EVENT:** Training & Readiness Accelerator II (TReX II)	Room 310CD
1330 – 1500	**NEXT BIG THING:** Human/Machine Teaming	Destination Lounge
1330 – 1500	**COMMUNITY OF INTEREST:** How Optimizing Digital Wargaming Results Influence Training & Strategic Innovation for Military Service	Room 330AB
1530 – 1700	**PAPER SESSIONS** (Title/Author list begins on page 85. Session schedules for this time frame are on page 84.)	Room 320 ABCD
1530 – 1700	**SIGNATURE EVENT:** Joint Development, Education, and Training Panel	Room 330CDGH
1530 – 1700	**FOCUS EVENT:** AF MAJCOM Panel	Room 310CD
1530 – 1700	**NEXT BIG THING:** Quantum Computing	Destination Lounge
1530 – 1700	**COMMUNITY OF INTEREST:** Application of Data Science In Naval LVC Training Environment for Improved Performance	Room 310AB
1530 – 1700	**COMMUNITY OF INTEREST:** Common Synthetic Environment for NATO Multi Domain Operations	Room 310AB
1530 – 1700	**PROGRAM BRIEF:** USSF Operational Test & Training Infrastructure Acquisition Update	Room 330EF
1800	**ALL REGISTRATIONS CLOSE**	
1800	**EXHIBITS CLOSE**	

THURSDAY • 4 DECEMBER 2025		
0700	**CONFERENCE AND EXHIBIT REGISTRATION OPEN**	South Concourse
0830 – 1000	**PAPER SESSIONS** (Title/Author list begins on page 85. Session schedules for this time frame are on page 84.)	Room 320AABC
0830 – 1000	**FOCUS EVENT:** Push & Pull: Science & Technology for Future Training Environments	Room 330CDGH
0830 – 1000	**NEXT BIG THING:** Wearables and Human Sensors	Destination Lounge
0830 – 1000	**COMMUNITY OF INTEREST:** Common Synthetic Environment for NATO Multi Domain Operations	Room 330AB
0830 – 1000	**PROGRAM BRIEF:** Navy Vision From Training Systems Program Managers	Room 330EF
0930	**EXHIBITS OPEN**	Exhibit Hall
1030 – 1200	**PAPER SESSIONS** (Title/Author list begins on page 85. Session schedules for this time frame are on page 84.)	Room 320ABC
1030 – 1200	**FOCUS EVENT:** Fleet Training Wholeness: How Navy Training Needs are Turned into Industry Solutions	Room 330EF
1030 – 1200	**FOCUS EVENT:** Joint All-Domain Non-Kinetic Training — Connecting Live, Virtual And Constructive Environments & Ranges	Room ????
1100 – 1500	**PROGRAM BRIEF:** Army Acquisition Update (TSIS Updates)	Room 330CDGH

AGENDA

1200 – 1330	**LUNCH**	Exhibit Hall
1300	**SERIOUS GAMES SHOWCASE & CHALLENGE AWARDS CEREMONY**	Innovation Showcase
1300 – 1600	**PROFESSIONAL DEVELOPMENT WORKSHOPS** (Synopses begin on page 92.)	
	PDW 1: Leveraging AI-Enhanced Coding Tools to Rapidly Create & Deploy Web Applications for Naval Training	Room 331A
	PDW 2: Serious Game Design Workshop	Room 331C
	PDW 4: Foundations of Artificial Intelligence in Training and Simulation	Room 230H
	PDW 5: Additive Manufacturing in Action – A Hands-On Workshop for Acquisition, Sustainment, and Strategic Advantage	Room 331D
	PDW 7: Navigating the Evolving Landscape of Distributed Simulation – Harnessing DDS for Secure and MOSA-Compliant LVC Training	Room 331B
	PDW 9: Certified M&S Professional 3.0 – Reinvention!	Room 230G
	PDW 11: Starship Bridge Simulations as a Serious Game for Team Development	Room 330EF
	PDW 12: Disrupt, Design, Deploy: A Human Centered Approach to Learning and Development	Room 210C
	PDW 13: Neuroscience Techniques to Accelerate and Enhance Training Through Personalization: A Focus on EEG, fNIRS, and Eye Tracking Biometrics	Room 210B
	PDW 15: Advancing Counter-Explosive Ordnance (EO) Training with Immersive Technology – A Hands-On Workshop	Room 320H
1500	**EXHIBIT HALL AND REGISTRATION CLOSE**	
1800	**HOSTED RECEPTION** Sponsored by Lockheed Martin Corporation	Hyatt Windermere Ballroom
1900	**CONFERENCE AWARDS BANQUET**	Hyatt Windermere Ballroom

Reception & Awards

I/ITSEC 2025 Scholarship Presentations
- RADM Fred Lewis Postgraduate Scholarships
- Leonard P. Gollobin Postgraduate Scholarships
- CMSP Postgraduate Scholarship
- Barbara McDaniel Undergraduate Scholarships
- RADM James A. Robb Scholarship Program

Best Tutorial Award Presentation
Best Paper Award Presentation
Passing of the Flag for I/ITSEC 2026
Post Dinner Networking

DRESS CODE

BRANCH	CONFERENCE AND GENERAL SESSIONS	BANQUET
Navy	Service Khaki, Navy Service Uniform (Speakers – Service Dress Blue)	Dinner Dress White (Service Dress White Optional)
Marine Corps	Service "C" (Speakers – Service "A")	Evening Dress (Dress Blue "A" or Service "A" Optional)
Air Force	OCPs or Flight Suit (Speakers – Service "A")	Mess Dress or Semi-Formal
Space Force	OCPs (Speakers – Service Dress)	Mess Dress or Semi-Formal
Army	Exhibit Floor/Attendees – ACUs or Duty Uniform (Speakers – ASUs, Class A's)	Army Dress Blues (Army Evening Mess Optional)
Coast Guard	Tropical Blue Long	Dinner Dress White (Service Dress White Optional)
Civilian	Business Attire	Black Tie (Optional)/Business or International Traditional Costume

I/ITSEC SUPPORTS OUR WARFIGHTERS, FIRST RESPONDERS, AND FAMILIES

For more information visit IITSEC.org/Attend/Charities-at-IITSEC

EcosySTEM OF LEARNING AT I/ITSEC

The EcosySTEM of Learning (EoL) focuses on strategically and tactically building interest and educational momentum through a wide breadth of Science, Technology, Engineering and Mathematics (STEM) initiatives. The EoL mission is to establish, nourish, and maintain a solid foundation for launching future leaders and fostering the future workforce.

Designed for agility and diversity, the EoL is built upon four major cornerstones. Each cornerstone is comprised of initiatives which provide impactful substance to the EoL architecture and to those who engage.

OUTREACH

ENCOUNTERS THROUGH OBSERVATION, INTERACTION, AND IMMERSION.

- Student Tours
- Interaction with STEM focused organizations
- Path for year round engagement opportunities

DISCOVERY DEN

PLATFORMS PROMOTING PRESENTATION SKILLS AND SHARING OF SUBJECT MATTER EXPERTISE.

- Informative Exhibits
- Serious Games Showcase & Challenge
- Presentation Theatre

BOOTHS 2383 – 2594

FOCUSED WORKSHOPS

CURRICULUM THROUGH CLASSES, SHORT COURSES, SEMINARS AND MORE.

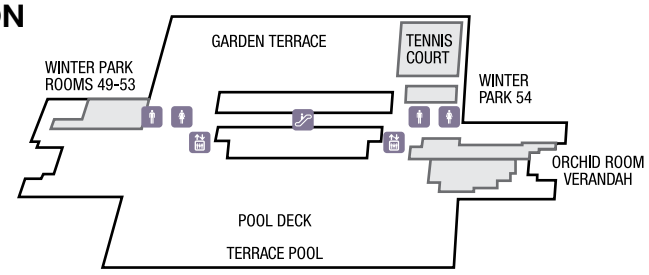
- Teacher Focused
- Student Focused
- Workforce Development

CAREER INVESTMENT

ADVANCEMENTS WITH LONG TERM PROFESSIONAL GOALS IN MIND.

- Tutorials
- Professional Development Workshops
- Scholarship Program
- Career Fair
- Continuing Education Units (CEUs)
- University Collaboration

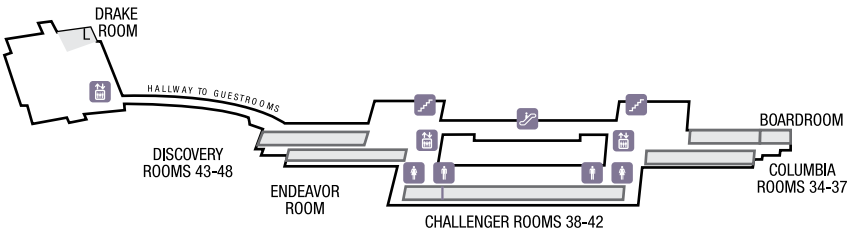
RECREATION LEVEL



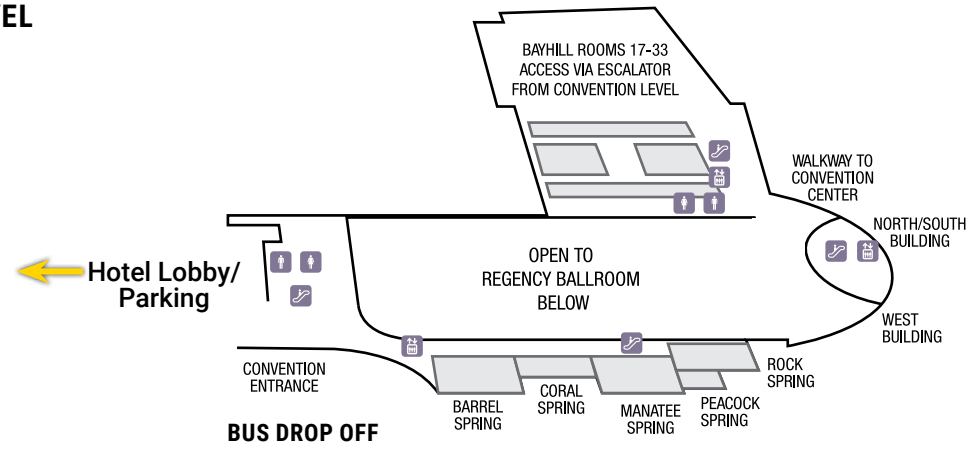
KEY

- Restrooms
- Escalator
- Stairway
- Elevator
- Information
- ATM

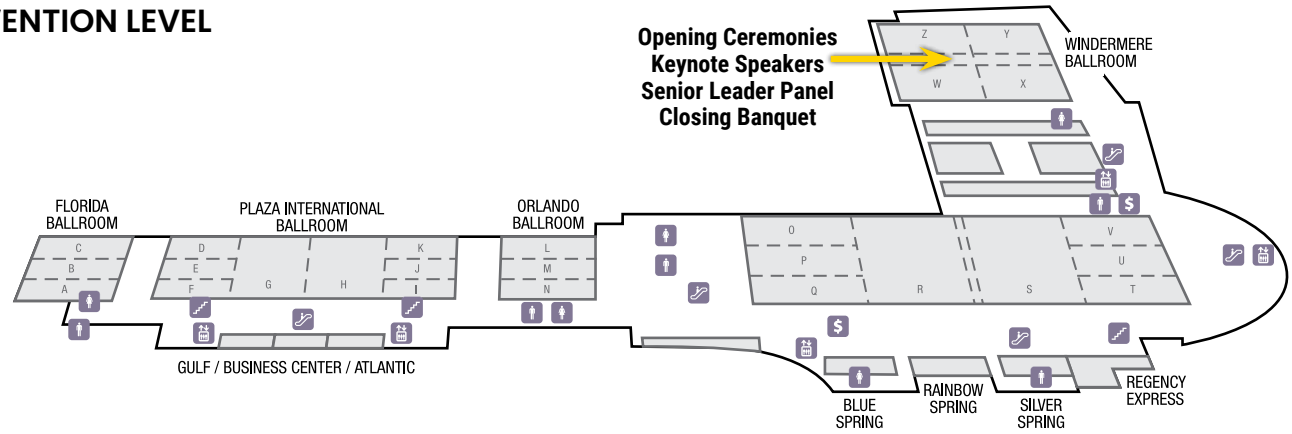
MEZZANINE LEVEL



ENTRY LEVEL

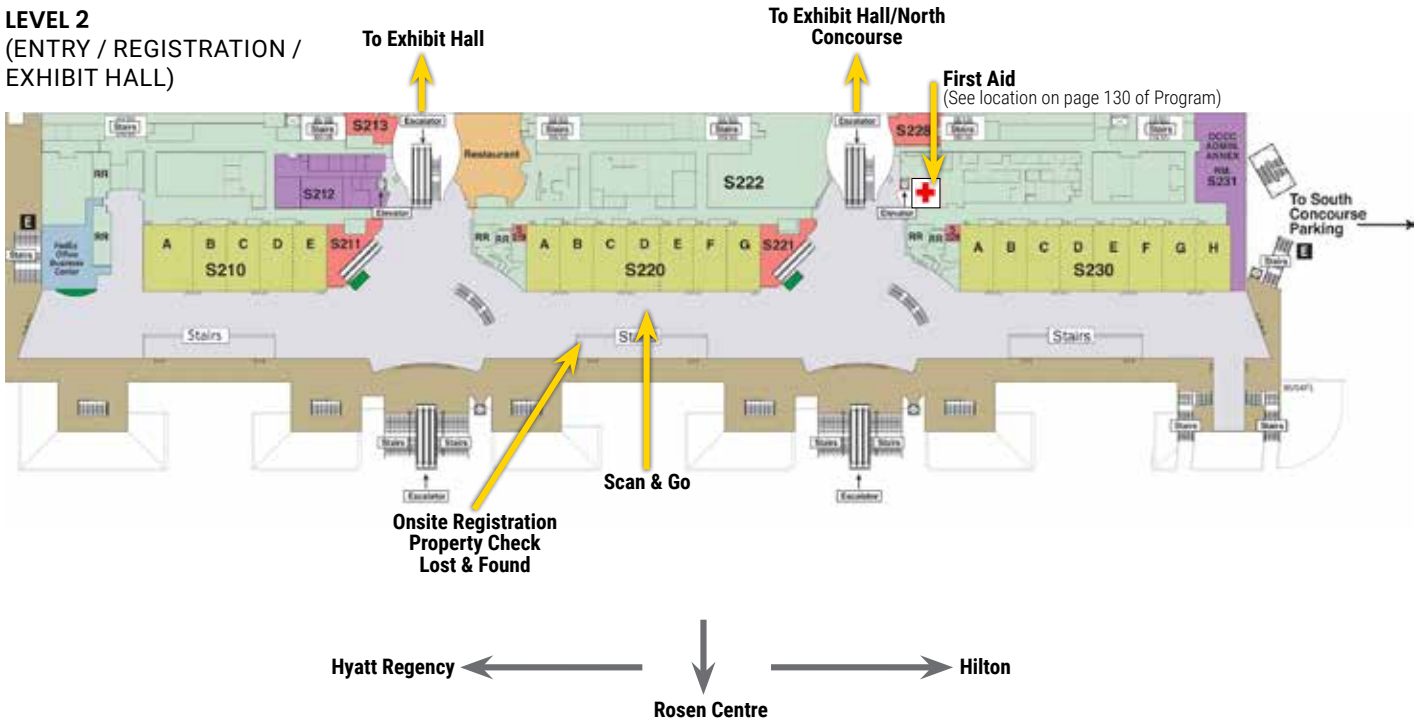


CONVENTION LEVEL

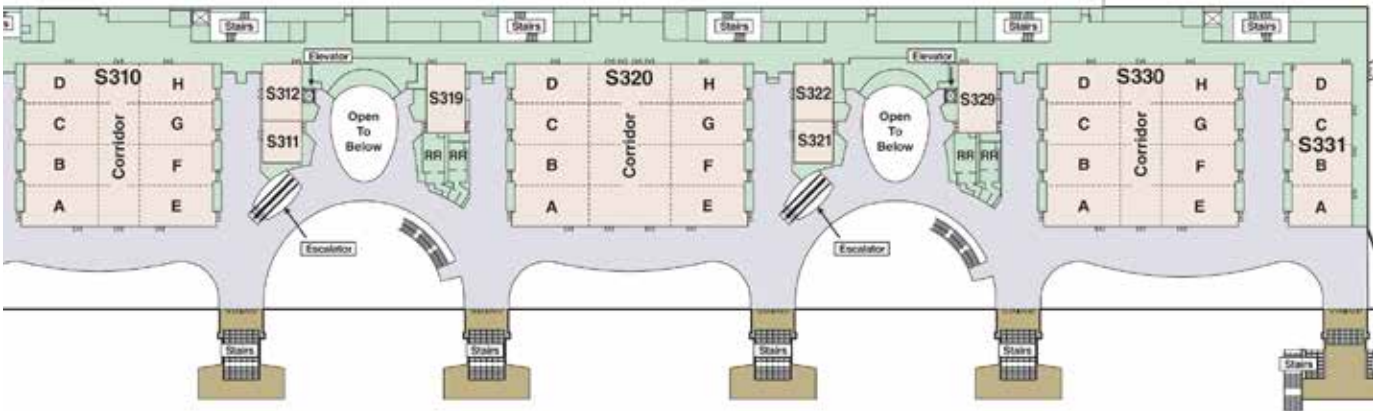


SOUTH CONCOURSE

LEVEL 2
(ENTRY / REGISTRATION / EXHIBIT HALL)



LEVEL 3 (TUTORIALS / PRESENTATIONS / EVENTS / PRACTICE ROOMS / PROFESSIONAL DEVELOPMENT WORKSHOPS)



HAVE QUESTIONS? ASK BLU!
TEXT "HI" TO 866.653.1575
OR
SCAN THE QR CODE!

NOTES

MONDAY, 1 DECEMBER • 1030 – 1200 • ROOM 330CDGH

CONGRESSIONAL M&S CAUCUS

MODERATOR

VICE ADMIRAL SEAN S. BUCK, USN (RET.)
President, National Training and Simulation Association (NTSA)

PANELISTS

NAME
District

NTSA and the I/ITSEC Conference 2025 are excited to host the Modeling and Simulation Congressional Caucus Special Event. All attendees and exhibitors are invited to hear first hand from our leaders in Congress who are committed to the success of our industry.

It is a great opportunity for you to interact with Congressional Members on issues of importance to you or your organization and to impress upon them the priorities of the modeling, simulation and training industry. With defense budgets and other Government budgets constantly in flux, this forum provides you a voice to advocate for the value of simulation for training in support of national security and resiliency.

CONGRESSIONAL M&S CAUCUS MEMBERS

BOBBY SCOTT
CAUCUS CO-CHAIR
3rd District, Virginia

JACK BERGMAN
CAUCUS CO-CHAIR
1st District, Michigan

JOHN RUTHERFORD
CAUCUS CO-CHAIR
5th District, Florida

DARREN SOTO
CAUCUS CO-CHAIR
9th District, Florida

ROBERT ADERHOLT
4th District, Alabama

DON BACON
2nd District, Nebraska

GUS BILIRAKIS
12th District, Florida

VERN BUCHANAN
16th District, Florida

KEN CALVERT
41st District, California

JACK ELLZEY
6th District, Texas

VIRGINIA FOXX
5th District, North Carolina

SCOTT FRANKLIN
18th District, Florida

MAX FROST
10th District, Florida

BRETT GUTHRIE
2nd District, Kentucky

ERIC SORENSEN
17th District, Illinois

MICHAEL TURNER
10th District, Ohio

JOE WILSON
2nd District, South Carolina

ROBERT J. WITTMAN
1st District, Virginia

TUESDAY, 2 DECEMBER • 1030 – 1200 • HYATT WINDERMERE BALLROOM

SENIOR LEADER PANEL

ALIGNING TRAINING, READINESS, AND ACQUISITION FOR OPERATIONAL DOMINANCE

MODERATOR

VICE ADMIRAL SEAN S. BUCK, USN (RET.)
NTSA, President

PANELISTS

NAME
Org

VADM BUCK, USN (RET.)

NAME

NAME

NAME

NAME

NAME

Global defense forces today operate in an era of unpredictable budgets, rapidly evolving threats, and accelerating technological disruption. Militaries must remain prepared to operate and execute across a wide spectrum of missions – from humanitarian assistance and disaster relief to the increasing demands of near-peer competition. At the same time, nations are navigating both the opportunities and vulnerabilities presented by emerging technologies and persistent cybersecurity risks.

Our Senior Leader Panel will examine these challenges and opportunities within the framework of this year's theme: *Optimizing Training: Ensuring Operational Dominance*.

This distinguished panel brings together senior representatives from the U.S. Military Services, the Office of the Secretary of Defense, and key international allies. Following opening perspectives, the panel will move directly into an interactive conversation — fielding questions from the moderator and the audience. Attendees can also submit questions in advance for consideration.

This is more than a panel — it's a front-row seat to the strategies and priorities shaping tomorrow's force. A rare chance to hear directly from national and international defense leaders on the future of training, readiness, and deterrence. Don't miss the opportunity to gain first-hand insights into how our most senior decision-makers are shaping the way ahead.

TUESDAY, 2 DECEMBER • 1400 – 1530 • ROOM 330AB

MODERN & EMERGENT TECHNOLOGIES FOR SOF READINESS

DISCUSSION OF MODERN & EMERGENT TECHNOLOGIES FOR SOF READINESS

MODERATOR

NICOLE NEMMERS
Deputy-Chief Digital & Artificial Intelligence Officer, USSOCOM

PANELISTS

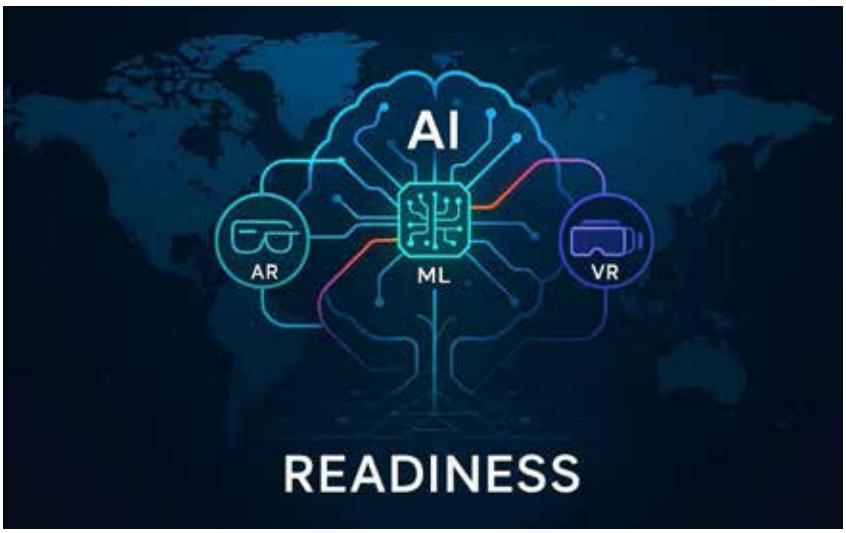
MAJOR GENERAL SHAWN SATTERFIELD, USA
Director, Force Development & Design, (J7), USSOCOM

JOE MILLER, SES
Deputy to the Commanding General, U.S. Army Special Operations Command

COLONEL MARK H. SMITH, USAF
Chief, Operations Training Division (A3T), HQ Air Force Special Operations Command

COLONEL JEFF COULON, USA
Commander, JTF 53-7, USSOCOM

JOHN GREEN
Director, Special Programs, Naval Special Operations Command




MS. NEMMERS


MG SATTERFIELD, USA


MR. MILLER, SES


COL SMITH, USAF


COL COULON, USA


MR. GREEN

This panel discussion brings together SOF senior leaders to delve into the subject of integrating advanced technologies—Augmented Reality (AR), Artificial Intelligence (AI), Machine Learning (ML), and Virtual Reality (VR)—into the realm of special operations training. Focusing on JLVC joint exercises framework, the event will examine how these cutting-edge tools can enhance effectiveness, adaptability, and realism. Discussion areas include benefits and potential challenges of incorporating AI into training methodologies, such as balancing automation with human decision-making, and how AR and VR can revolutionize mission rehearsal by creating immersive and dynamic simulation environments.

TUESDAY, 2 DECEMBER • 1400 – 1530 • ROOM 330CDGH

CONVERSATION ON TRAINING WITH DAF LEADERS

DISCUSSION OF MODERN & EMERGENT TECHNOLOGIES FOR SOF READINESS

MODERATOR

ROWAYNE A. "WAYNE" SCHATZ JR., SES
Director for Studies & Analysis, Office of the Secretary of the Air Force

PANELISTS

LIEUTENANT GENERAL DAVID H. TABOR, USAF
Deputy Chief of Staff of Plans and Programs, Headquarters U.S. Air Force

LIEUTENANT GENERAL DAVID A. HARRIS, USAF (INVITED)
Deputy Chief of Staff, Air Force Futures, Headquarters, U.S. Air Force

MAJOR GENERAL CLARK J. QUINN, USAF
Deputy Commander, AETC

MAJOR GENERAL JAMES E. SMITH, USSF (INVITED)
Commander, STARCOM

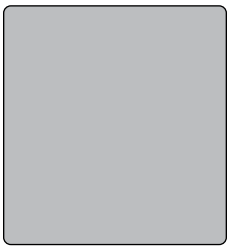
BRIGADIER GENERAL TRAVOLIS SIMMONS, USAF (INVITED)
Deputy Chief of Staff for Operations, Headquarters U.S. Air Force

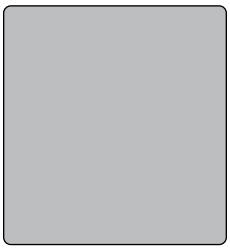

MR. SCHATZ, JR., SES


LT GEN TABOR, USAF


LT GEN HARRIS, USAF


MAJ GEN QUINN, USAF


MAJ GEN SMITH, USSF


BRIG GEN SIMMONS, USAF

At an inflection point, the need for a highly trained and lethal Department of the Air Force has never been greater. This panel convenes Air Force and Space Force leaders from acquisition, research & technology, and mission readiness to explore how training, simulation and education is evolving into a critical force multiplier. Attendees will gain insight into:

- How the DAF is preparing Airmen and Guardians to prevail in complex, data-driven battlespaces.
- Maximizing efficiencies through M&S to accelerate training timelines, optimize resource allocation, and deliver more capable forces faster.
- The Air Force's vision for next-generation M&S and how industry partners can help.

TUESDAY, 2 DECEMBER • 1600 – 1730 • ROOM 330CDGH

BREAKING THROUGH BARRIERS

ALIGNING AIR FORCE M&S RESEARCH, ACQUISITION, AND OPERATIONS

MODERATOR

RICHARD TEMPALSKI, HQE
Chief Modeling & Simulation Officer, CMSO

PANELISTS

LIEUTENANT GENERAL DONNA D. SHIPTON, USAF
Commander, AFLCMC

BRIGADIER GENERAL JASON E. BARTOLOMEI, USAF
Commander, AFRL

AMANDA GENTRY, SES
Director, AFMC IDO

RODNEY STEVENS, SES
Program Executive Officer Training, OTTI


MR. TEMPALSKI, HQE


LT GEN SHIPTON, USAF


BRIG GEN BARTOLOMEI, USAF


MS. GENTRY, SES


MR. STEVENS, SES

In the rapidly evolving digital battlespace, the speed at which we can transition innovative Modeling and Simulation (M&S) solutions from industry concepts to operational capabilities is critical for the Air Force's continued dominance. This panel discussion dives into the challenges and opportunities in bringing cutting-edge M&S technologies from industry R&D to the hands of our Warfighters.

- Hear directly from Air Force leadership in R&D and acquisition on their strategies for accelerating M&S technology transition.
- Discover how AFRL, AFLCMC, and the Chief of Modeling and Simulation Office are working together to streamline processes, foster communication, and leverage emerging technology.

WEDNESDAY, 3 DECEMBER • 0830 – 1000 • ROOM 330AB

MARINE CORPS GENERAL OFFICER PANEL

MODERATOR

COLONEL WYNNDEE M. YOUNG, USMC
Program Manager, Program Manager Training Systems, MARCOSYSCOM

PANELISTS

LIEUTENANT GENERAL BENJAMIN T. WATSON, USMC
Commanding General, Training and Education Command

BRIGADIER GENERAL TAMARA L. CAMPBELL, USMC
Commander, MARCOSYSCOM

BRIGADIER GENERAL MICHAEL A. BROOKS, USMC
Commanding General, Training Command

BRIGADIER GENERAL SIMON M. DORAN, USMC
Commanding General, Marine Corps Warfighting Laboratory


COL YOUNG, USMC


LTGEN WATSON, USMC


BGEN CAMPBELL, USMC


BGEN BROOKS, USMC


BGEN DORAN, USMC

This panel of Marine Corps General Officer will address the critical imperative of optimizing training to maintain operational dominance in a rapidly evolving threat environment. Discussions will center on innovative approaches to training methodologies, leveraging technology, and adapting curricula to meet future warfighting demands. Key topics include integrating live, virtual, and constructive training; fostering critical thinking and adaptability; and building resilient, lethal, and highly skilled Marines. The panel will explore how to best prepare Marines for the challenges of multi-domain operations and ensure continued superiority on the battlefield.

WEDNESDAY, 3 DECEMBER • 1030 – 1200 • ROOM 310AB

NAVY FLAG OFFICER PANEL

MODERATOR

VICE ADMIRAL SEAN BUCK, USN (RET.)
President, National Training and Simulation Association

PANELISTS

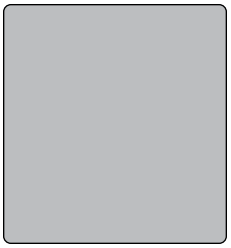
REAR ADMIRAL ANTHONY CARULLO, USN (INVITED)
Director of Warfighting Development

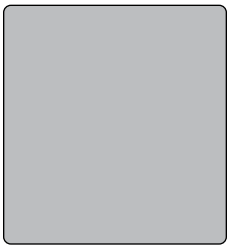
REAR ADMIRAL WILLIAM DALY, USN (INVITED)
Director, Surface Warfare Division, Office of the Chief of Naval Operations

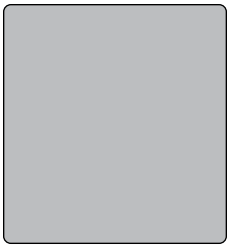
REAR ADMIRAL PETER SMALL, USN (INVITED)
Commander, Naval Surface and Undersea Warfare Centers

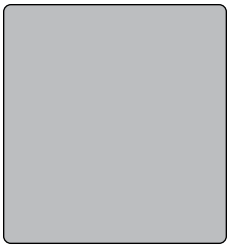
REAR ADMIRAL TODD WEEKS, USN (INVITED)
PEO Strategic Submarines


VADM BUCK, USN (RET.)


RADM CARULLO, USN


RADM DALY, USN


RDML SMALL, USN


RDML WEEKS, USN

This event gathers Navy Flag Officers to discuss challenges in acquisition, research & technology, and mission readiness as we work to deter and engage long-term competition. A central theme will be the role of the modeling and simulation community in developing cutting-edge solutions that enhance our warfighting capabilities and ensure we remain postured to deter aggression and win the fight, when needed. Discover how the Navy will achieve this, while maintain a viable plan for funding and acquiring these capabilities.

WEDNESDAY, 3 DECEMBER • 1030 – 1200 • ROOM 330CDGH

CUTTING EDGE INNOVATION – RAPIDLY ADVANCING M&S TO SUPPORT JOINT ALL-DOMAIN TRAINING

THE JOINT STAFF ACCELERATES JOINT FORCE WARFIGHTING READINESS, INCREASES LETHALITY, AND STRENGTHENS DETERRENCE GLOBALLY – M&S MUST KEEP PACE

MODERATOR

COLONEL TIMOTHY D. RUSTAD, USA
Division Chief, Joint Technology and Simulation Division, Joint Staff J7, Deputy Directorate Joint Training and Exercises

PANELISTS

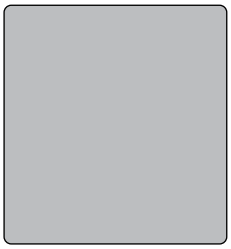
BRIGADIER GENERAL DAVID R. EVERLY, USMC
Joint Staff, Deputy Director, J7, Joint Training and Exercises

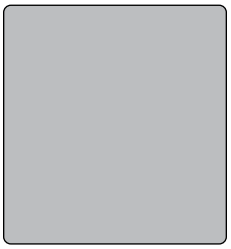
SEAC DAVID ISOM, USN
Senior Enlisted Advisor to the CJCS

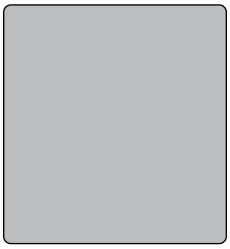
BRIGADIER GENERAL RICHARD GOODMAN, USAF
Director of Training, INDOPACOM

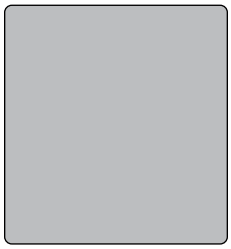
MAJOR GENERAL TROY L. ENDICOTT, USSF
Joint Staff, J-7, Vice Director for Joint Force Development

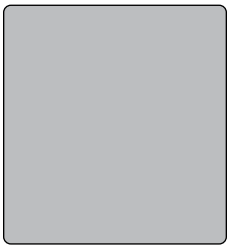
BRIGADIER GENERAL DAMIAN HILL
Director, General Joint Collective Training Branch (J7), Joint Operations Command, Australia

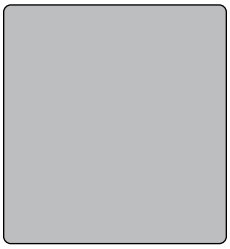

COL RUSTAD, USA


BGEN EVERLY, USMC


SEAC ISOM, USN


BRIG GEN GOODMAN, USAF


MAJ GEN ENDICOTT, USSF


BG HILL, AUS

Overview: The Joint Force must be ready to conduct globally integrated, cross-functional, multi-domain operations as required by the Global Posture of the U.S. and Allies. Cutting edge innovation will support Joint Force warfighting readiness, increase lethality, and strengthen deterrence globally – M&S training capabilities must keep pace. DoD established Elite Constellation (EC) in 2024 as a multi-year campaign of events that increases the ability of the Joint Force to conduct globally integrated, cross-functional, multi-domain operations as envisioned in the Joint Warfighting Concept. EC accelerates Joint Force warfighting readiness, increases lethality, and strengthens deterrence globally – M&S must keep pace.

WEDNESDAY, 3 DECEMBER • 1330 – 1500 • ROOM 310AB

NAVAL AVIATION FLAG OFFICER PANEL

MODERATOR

PAUL SUHL (INVITED)
CEO, Florida High Tech Corridor

PANELISTS

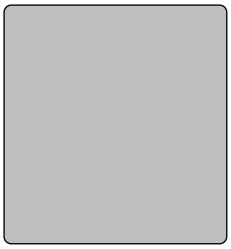
REAR ADMIRAL DOUGLAS VERISSIMO, USN (INVITED)
Commander, Naval Air Force Atlantic

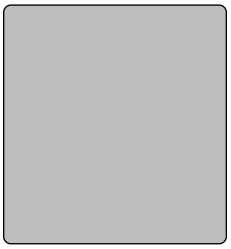
REAR ADMIRAL TODD EVANS, USN
Commander, Naval Air Warcraft Center Aircraft Division

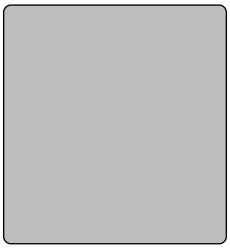
REAR ADMIRAL MAX McCOY, USN
Chief, Naval Air Training

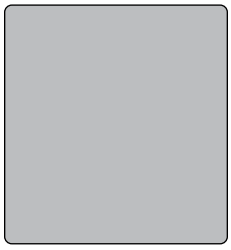
REAR ADMIRAL GREGORY HUFFMAN, USN (INVITED)
Commander, NETC

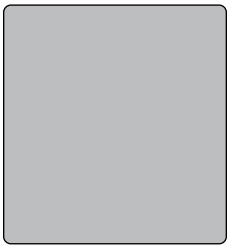
REAR ADMIRAL JOSEPH HORNBUCKLE, USN
Title, Org

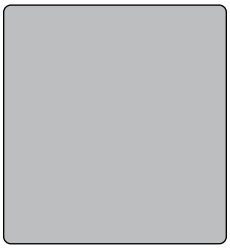

MR. SUHL


RADM VERISSIMO, USN


RDML EVANS, USN


RADM McCOY, USN


RADM HUFFMAN, USN


RADM HORNBUCKLE, USN

This panel of senior Navy leaders from the aviation community will discuss the focus on modeling and simulation to enable training. To ensure our Naval Aviation remains at the forefront, we have established strategic focus areas that will guide all development efforts in training, technology, and tactics. These priorities directly target key warfighting gaps, ensuring that we maintain a decisive advantage while innovating in both existing and new training programs. By staying aligned, focused, and leveraging the power of M&S, we will remain a relevant and advanced warfighting force for the future, now and in any potential war.

WEDNESDAY, 3 DECEMBER • 1530 – 1700 • ROOM 330CDGH

JOINT DEVELOPMENT, EDUCATION, AND TRAINING PANEL

TRAINING COMMANDS' PERSPECTIVES

MODERATOR

WENDY WALSH, ED.D.
Title, Org

PANELISTS

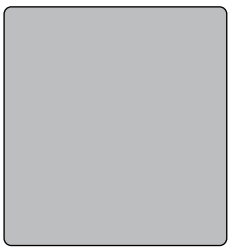
LIEUTENANT GENERAL DAVID M. HODNE, USA (INVITED)
Title, Org

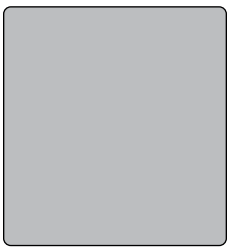
LIEUTENANT GENERAL BENJAMIN T. WATSON, USMC (INVITED)
Title, Org

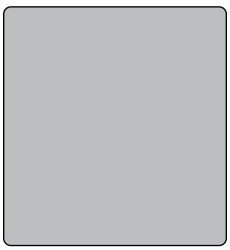
MAJOR GENERAL CLARK J. QUINN, USAF
Title, Org

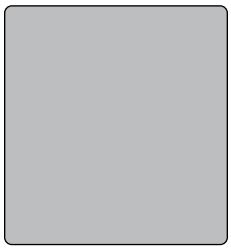
REAR ADMIRAL GREGORY CLARK HUFFMAN, USN (INVITED)
Title, Org

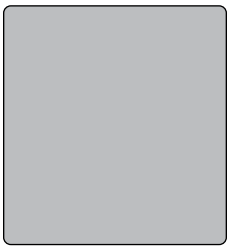
MAJOR GENERAL JAMES E. SMITH, USSF (INVITED)
Title, Org

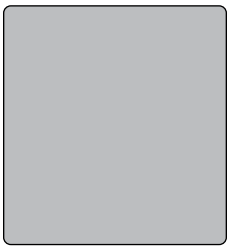

DR. WALSH


LTG HODNE, USA


LTGEN WATSON, USMC


MAJ GEN QUINN, USAF


RADM HUFFMAN, USN


MAJ GEN SMITH, USSF

In today's dynamic and global landscape, achieving and maintaining operational dominance requires seamless Joint operations and a highly trained, ready force. This panel will delve into the critical elements of effective Joint military training and education from the perspective of experienced training commanders. This session offers an opportunity for attendees to gain firsthand knowledge from commanders at the forefront of military training, understand their priorities, and engage in a dynamic discussion about the future of Joint military education and its vital role in securing operational dominance.

MONDAY, 1 DECEMBER • 1430 – 1530 • ROOM 320A

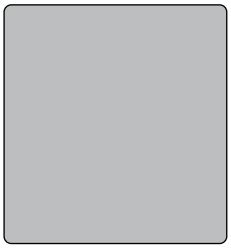
CERTIFIED M&S PROFESSIONAL 3.0

THE DISTINCTION OF A TRUE M&S PROFESSIONAL

MODERATOR
TBD
Title, Org

PANELISTS
TBD
Title, Org

CMSP
CERTIFIED MODELING AND SIMULATION PROFESSIONAL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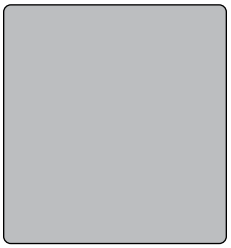
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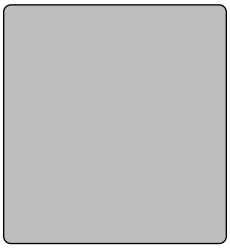
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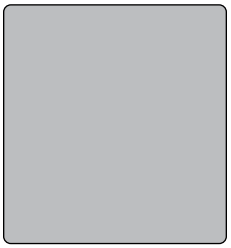
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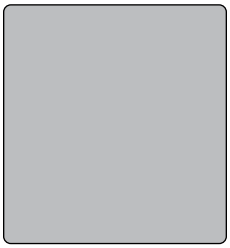

NAME

CMSP is the only encompassing M&S professional certification. It provides differentiation, community awareness, specialized networks, and membership benefits. Its reinvention was unveiled in 2021 with CMSP 3.0. This version streamlines the processes, updates the examination, employs a Learning Management System, and is a part of creating a vibrant community of practice! All M&S practitioners seeking to enhance their credentials and to add a level of distinction to their qualifications — from Intern, Apprentice, Practitioner, and Master Levels — will find this Focus Event informative and valuable. Attendees will learn: The motivators behind starting CMSP, its evolution, and future plans.

MONDAY, 1 DECEMBER • 1530 – 1700 • ROOM 330CDGH

BLACK SWAN – THE FOUR HORSEMEN OF AI

WHEN DIME FACES ITS FINAL BATTLE

MODERATOR

MARRYAM CHAUDHRY
President & Chief Executive Officer, XR 2 LEAD LLC

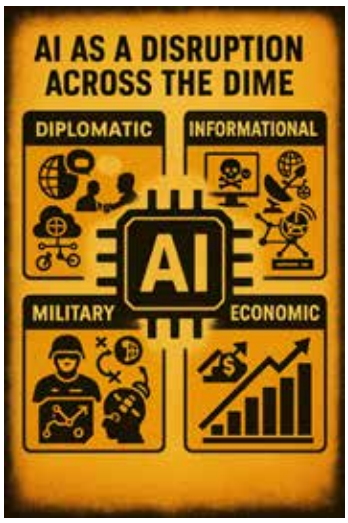
PANELISTS

MOLLY JUST-BEHR
Global Head of Public Sector, Databricks

DAVID METCALF, PH.D.
Director, Mixed Emerging Technology Integration Lab (METIL), UCF Institute for Simulation and Training

AMBASSADOR DANIEL SHIELDS
Editorial Advisor, Journal of Indo-Pacific Affairs

RAY COMPTON
Fellow, LMI




MS. CHAUDHRY


MS. JUST-BEHR


DR. METCALF


AMB. SHIELDS


MR. COMPTON

What happens when AI simultaneously disrupts the Diplomatic, Informational, Military, and Economic (DIME) domains? This Black Swan event explores AI convergence across DIME, using modeling/simulation to train leaders when traditional systems fail. Picture algorithmic agents conducting diplomacy in microseconds while autonomous systems bypass human oversight entirely. The machines are rewriting the rules of power faster than we can adapt. When human decision-making becomes obsolete, how do we maintain control? The disruption isn't coming—it's here, embedded, and accelerating. For defense strategists and security professionals facing an uncertain future.

MONDAY, 1 DECEMBER • 1600 – 1730 • ROOM 330EF

2025 I/ITSEC FELLOWS PRESENTATION

BEING ELECTED A FELLOW IS THE HIGHEST HONOR BESTOWED
BY THE NTSA ON BEHALF OF THE WORLD-WIDE MS&T COMMUNITY

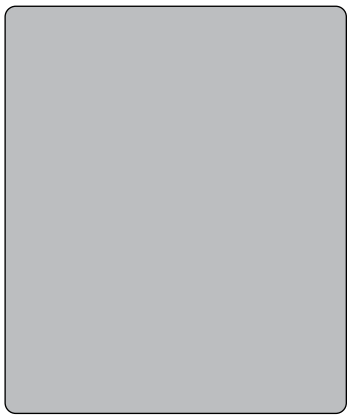
I/ITSEC Fellows is a series of presentations by technical leaders responsible for the seminal contributions that have fundamentally shaped the simulation and training capabilities being delivered today. The conference leadership invites iconic visionaries to share their insight for future developments and to describe their part in reaching our current posture, relating both their success and challenges as enduring lessons learned that will apply across a broad range of endeavors as the community moves forward.

MODERATOR

BRIAN HOLMES
President and Managing Partner, InnoVāxion Business Consulting, LLC
Chair, I/ITSEC Fellows Committee

2025 I/ITSEC FELLOW

TBD
Title, Org

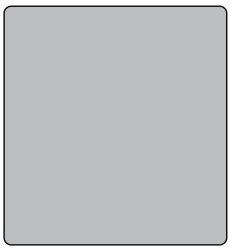


MONDAY, 1 DECEMBER • 1600 – 1730 • ROOM 330AB

A JOINT SERVICE M&S CERTIFICATE FOR LEARNING PROFESSIONAL

MODERATOR
TBD
Title, Org

PANELISTS
TBD
Title, Org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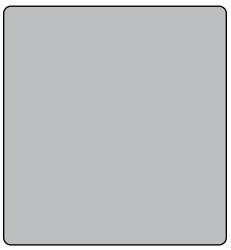
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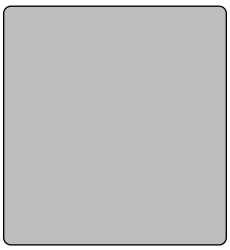
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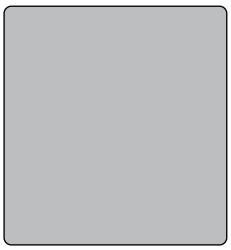
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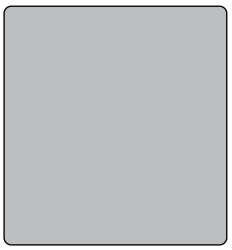
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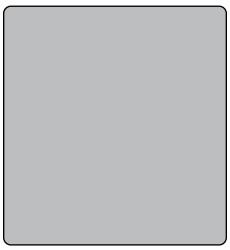

NAME

Modeling and simulation (M&S) technologies offer transformative potential for learning, creating immersive experiences that mirror real-world scenarios, adjusting to learner preferences and targeting specific competency acquisition. Yet, despite the promise of M&S to accelerate competency-based learning, its full potential remains untapped. This panel will discuss successes and challenges related to technology exposure, acquisition, effectively measuring learning, and faculty development to contribute to support the successful utilization of M&S in military force development settings. Specifically, we will discuss the idea of M&S Certificate program for learning professions.

TUESDAY, 2 DECEMBER • 1400 – 1530 • ROOM 310CD

THE FUTURE OF HEALTHCARE SIMULATION

BUILDING THE FUTURE WE NEED

MODERATOR

BOB ARMSTRONG
ExDir, Sentara Center for Healthcare Simulation and Immersive Learning; Asst Prof, EVMS School of Health Professions, Program Director, National Center for Collaboration in Medical Modeling & Simulation; Director of Corporate Relations, Macon & Joan Brock Virginia Health Sciences, Old Dominion University

PANELISTS

HARU OKUDA, M.D.
Associate Vice President, Office of Interprofessional Education and Practice; Chief Executive Officer, Health Professions Conferencing Corporation; Executive Director, Center for Advanced Medical Learning and Simulation; Director, College of Medicine Internal Medicine, University of South Florida

JENNIFER MANOS
Executive Director, Society for Simulation in Healthcare

PAUL E. PHRAMPUS, M.D.
Professor of Emergency Medicine and Anesthesiology and Perioperative Medicine, Director, Peter M. Winter Institute for Simulation, Education, and Research (WISER), University of Pittsburgh

SSH
Society for Simulation in Healthcare™


MR. ARMSTRONG


DR. OKUDA


MS. MANUS


DR. PHRAMPUS

Prior to the 2025 International Meeting on Simulation in Healthcare (IMSH), the Society for Simulation in Healthcare (SSH) held a Forum titled "Healthcare Simulation 2050: Building a Better Future Together." The Forum brought together 200 simulation stakeholders from academia, clinics, and academia to brainstorm on the capabilities they felt they would need in the next 25 years.

This Special Event provides an overview of the findings from this Forum, presented by several breakout group leads, with data informed through analysis of the collected data.

TUESDAY, 2 DECEMBER • 1600 – 1730 • ROOM 310CD

EVOLUTION OF MILITARY HEALTHCARE TRAINING – SENIOR LEADER PERSPECTIVES

ADDRESSING OPERATIONAL MEDICAL CHALLENGES WITH SIMULATION AND TRAINING

MODERATOR

MATTHEW HACKETT, PH.D.
S&T Manager, U.S. Army DEVCOM SC

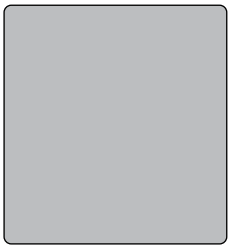
PANELISTS

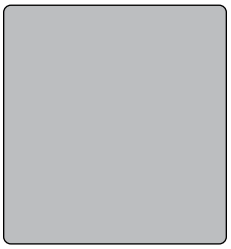
COLONEL PAUL KWON, USA
DHA Education and Training

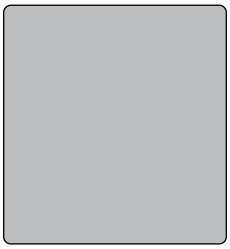
COLONEL ERIC JACOBSON, USA
Medical Center of Excellence, Directorate of Simulation

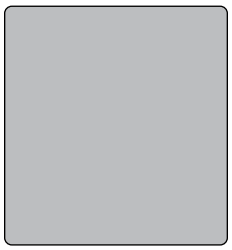
COMMANDER JAY HARAN, USN
Navy Bureau of Medicine

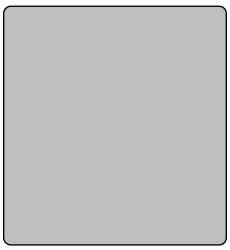
JEREMY PAMPLIN
Program Manager, DARPA Biological Technologies Office


DR. HACKETT


COL KWON, USA


COL JACOBSON, USA


MR. PAMPLIN


CDR HARAN, USN

The Military Healthcare System (MHS) supports the Warfighter, whether on the battlefield or the bedside. The MHS is evolving to address the shifting operational environment, including those related to large scale combat operations. This panel includes senior leaders from across the MHS. The panel will highlight the current landscape and challenges within military healthcare, as well as the role that training and simulation plays in addressing issues and upskilling providers.

TUESDAY, 2 DECEMBER • 1600 – 1730 • ROOM 310AB

JOINT SENIOR ENLISTED PANEL

MODERATOR

CHIEF MASTER SERGEANT KARMANN-MONIQUE POGUE, USSF
Command Senior Enlisted Leader, STARCOM

PANELISTS

SERGEANT MAJOR CHARLES "CHUCK" HOUSTON, USA
Senior Enlisted Advisor, U.S. Army PEO STRI

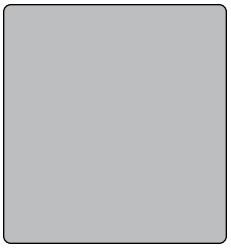
FLEET MASTER CHIEF DUSTIN KUERS, USN (INVITED)
Fleet Master Chief, Commander Naval Air Pacific

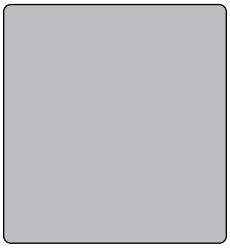
CHIEF MASTER SERGEANT CHAD BICKLEY, USAF (INVITED)
Command Chief, AETC

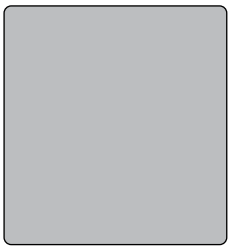
MASTER SERGEANT DANIEL BASAN, USMC
START Program Manager, NAWCTSD

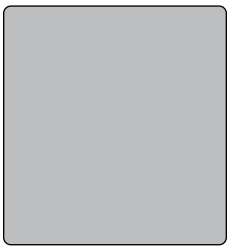
SENIOR MASTER SERGEANT JUSTIN M. CREGER, USSF (INVITED)
Senior Enlisted Leader, SYD 81, Space Systems Command


CMSGT POGUE, USSF


SGM HOUSTON, USA


FLTCDM KUERS, USN


CCM BICKLEY, USAF


MSGT BASAN, USMC


SMSGT CREGER, USSF

This Panel will convene Senior Enlisted Representatives from the Joint Force. Discussion will focus on Joint training priorities, leadership roles in strengthening training culture, and practical partnership approaches that measurably improve Readiness. Time will be allocated for audience Question and Answer (Q&A).

Key Takeaways: Joint Readiness Priorities: Enlisted perspectives on what "ready" looks like, clear expectations for training outcomes, repetition, and mission focus that translate to the unit level.

Enlisted Leadership Imperatives: How SELs shape training culture, accountability, and force development; reinforcing standards, discipline, and proficiency across formations. Partnership and Delivery: Practical partnership approaches that can improve readiness.

Recommended Participants: Senior Enlisted Leaders (E-7 through E-9), Command Chiefs/Sergeants Major, and Unit Training Superintendents Commanders, Operations/Training Officers, and professionals responsible for Unit-Level Readiness Government Civilians and Mission Partners supporting training integration and range operations Acquisition/Program Managers, Requirements Leads, and Engineers shaping training system capabilities Allied and Partner Nation Delegations engaged in joint/combined training Industry Executives and Technical Leads

WEDNESDAY, 3 DECEMBER • 0830 – 1000 • ROOM 310AB

USSF TRAINING & OPERATIONS PANEL

MODERATOR

TBD
Title, Org

PANELISTS

TBD
Title, Org

TBD
Title, Org

TBD
Title, Org

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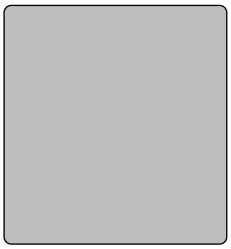
Title, Org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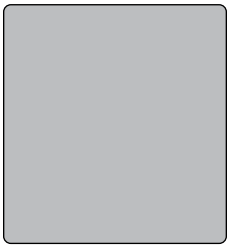
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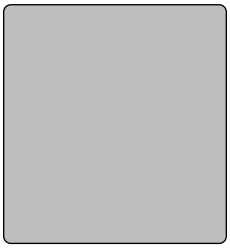
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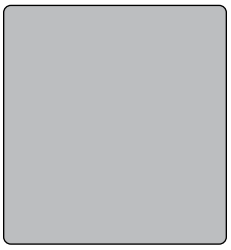
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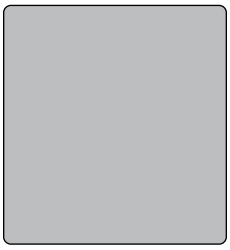

NAME

This Panel convenes U.S. Space Force (USSF) Commanders to provide the Operators' Perspective on current and emerging operational demands, training readiness, and mission execution across the Space Enterprise. Panel composition includes the Space Training and Readiness Command (STARCOM) Delta 10 and Delta 11 Commanders and two Space Operations Command (SpOC) Mission Delta (MD) leaders. Discussion will center on operational risk, readiness, and the decision-quality information Commanders require from training, testing, and acquisition partners to deliver combat-credible effects.

Key Takeaways: Commander Priorities for Readiness: Clear, mission-focused expectations for training outcomes, exercises, and wargames that translate directly to Unit-Level proficiency and operational availability.

Recommended Participants: O-5/O-6 Command Teams, Senior Enlisted Leaders, and Unit/Delta Operations and Training Leadership. Requirements, Training, and Acquisition Professionals. Government Civilians and Mission Partners supporting ranges, M&S/LVC integration, and mission readiness. Industry Executives and Technical Leads seeking Commander-level guidance on operational value, transition, and sustainment.

WEDNESDAY, 3 DECEMBER • 1030 – 1200 • ROOM 330EF

ELECTROMAGNETIC SPECTRUM IMPACTS ON DOD TRAINING

SPECTRUM REPURPOSING IMPACTS TO CONUS TRAINING AND WARFIGHTER READINESS

MODERATOR

GINA TYRRELL
OUSD R&E/U.S. Army TSMO

PANELISTS

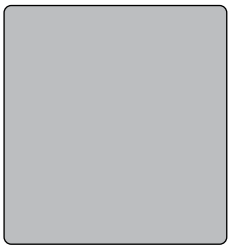
TBD
5G SME

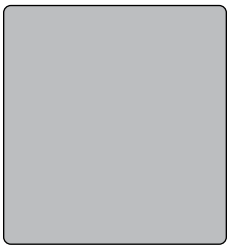
TBD
EW Training SME
USSTRATCOM

TBD
Spectrum Technologist
OUSD (R&E)

TBD
Training SME
OUSD (P&R)

TBD
Enterprise Spectrum Lead
DoD CIO


MS. TYRRELL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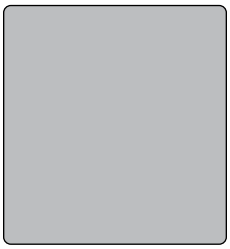
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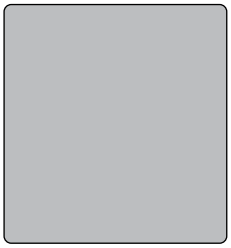
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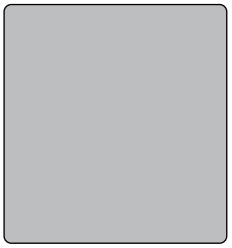
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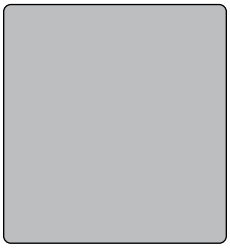
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The government auction of hundreds of MHz of spectrum to commercial industry for broadband use has an ever-increasing impact on military training programs, including threat systems, instrumentation, and training realism. The rapidity of the auctions is challenging training programs and industrial capacity as they develop and execute risk mitigation strategies. This panel will address past and future auctions, impacts on training, and risk mitigation efforts.

WEDNESDAY, 3 DECEMBER • 1330 – 1500 • ROOM 330EF

WOMEN IN MODELING AND SIMULATION

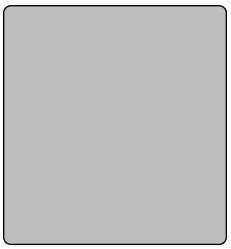
MODERATOR

JENNIFER SOLBERG, PH.D.
Chief Executive Officer, Quantum Improvements Consulting

PANELISTS

TBD
Title, Org


DR. SOLBERG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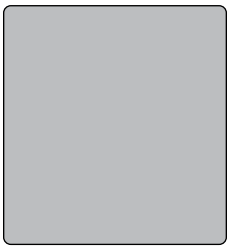
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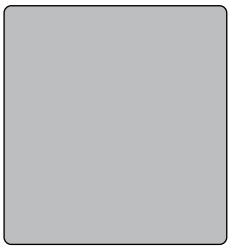
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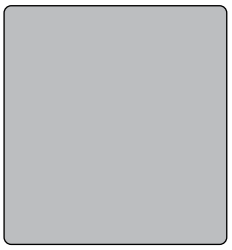
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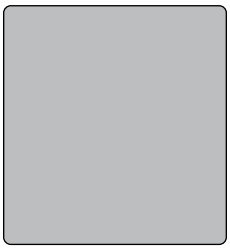
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Over the past decades, the defense industry has shifted toward including women in every level of operations and decision-making. Despite these positive steps, women still navigate specific challenges in the workplace. Understanding women's experiences in modeling and simulation, and in defense broadly, will help organizations make smart human resources and policy decisions. In this panel, women from a variety of career paths — Active Duty, DoD civilian, and industry — will share their workplace experiences. Our discussion will cover topics such as leadership, mentorship, and how to succeed in today's environment.

WEDNESDAY, 3 DECEMBER • 1330 – 1500 • ROOM 310CD

TRAINING & READINESS ACCELERATOR II (TReX II)

MODERATOR

TBD
Title, Org

PANELISTS

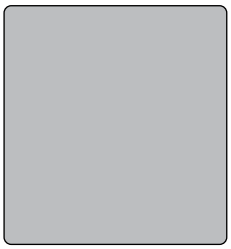
VINCE MALONE (INVITED)
Executive Director, TReX II

JEFF KERSEY (INVITED)
Program Manager, Advanced Technology International

MONICA ESCALANTE (INVITED)
Agreements Officer, ACC-Orlando

MICHELLE MURFITT (INVITED)
Contracts Management, Lockheed Martin

GISELE BENNETT, PH.D. (INVITED)
Research Engineer, MEPSS, LLC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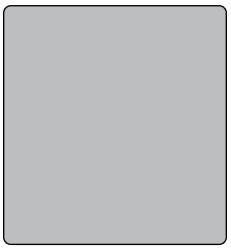
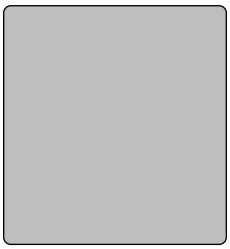
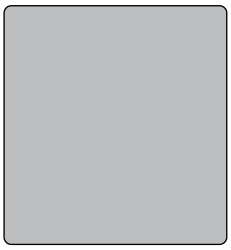
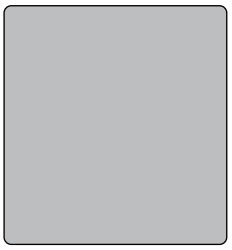
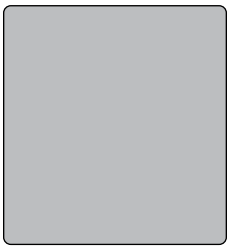

MR. MALONE


MR. KERSEY


MS. ESCALANTE


MS. MURFITT


DR. BENNETT

Inform how federal government agencies can launch technology advancing prototype projects utilizing the TReX II other transaction authority contracting mechanism. Inform how industry partners can participate in the TReX II consortium and compete for technology advancing opportunities to benefit military programs. Scope for TReX II includes modeling, simulation, education and training, experimental validation, readiness, and information operations.

This event provides government and industry partners an opportunity to engage with the TReX II team to learn the intricacies of the program — the processes, the speed and agility to get on contract within weeks, as well as the toolsets available.

WEDNESDAY, 3 DECEMBER • 1530 – 1700 • ROOM 310CD

AF MAJCOM PANEL

MODERATOR

COLONEL ANTHONY C. GRAHAM, USAF
Commander, AFAMS

PANELISTS

TBD
Title, Org

TBD
Title, Org

COLONEL CHAD DAVIES, USAF
Chief, Ops Training, Test & Standard/Evaluation Division, Air Force Global Strike Command

COLONEL SHANE GARNER, USAF
Chief, Test and Training Division, Air Combat Command

MARK S. JERNIGAN
Chief, Aircrew Tactics & Training Division, Headquarters Air Mobility Command


COL GRAHAM, USAF

NAME

NAME

COL DAVIES, USAF

COL GARNER, USAF

MR. JERNIGAN

This panel assembles senior leaders from across multiple Major Commands (MAJCOMs) to delve into the critical challenge of optimizing training to ensure Air Force operational dominance in an increasingly complex and contested global landscape. Recognizing that readiness starts with training, these leaders will provide insights into their respective commands' unique needs and share their vision for leveraging cutting-edge technologies and innovative training methodologies to build a more lethal, agile, and resilient force.

THURSDAY, 4 DECEMBER • 0830 – 1000 • ROOM 330CDGH

PUSH & PULL: SCIENCE & TECHNOLOGY FOR FUTURE TRAINING ENVIRONMENTS

MODERATOR

JIM GUMP, PH.D.
Senior Technical Advisor, Modeling Simulation and Analysis, AFRL and CMSO

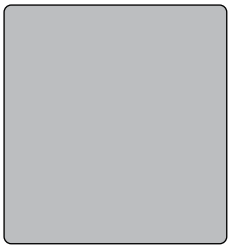
PANELISTS

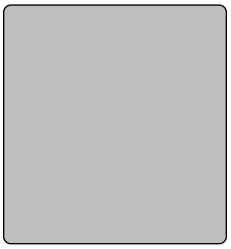
GLENN GUNZELMANN, PH.D.
Warfighter Interactions and Readiness M&S Lead, AFRL

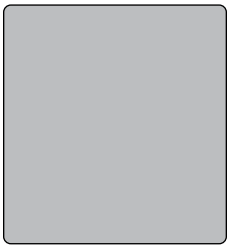
DAVE MALEK
Readiness Product Line Lead, AFRL

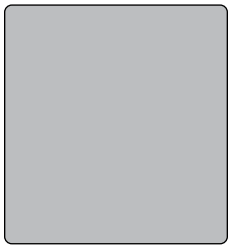
JEROME RAY II
Senior Program Manager, AFSIM Model Management Office, AFRL

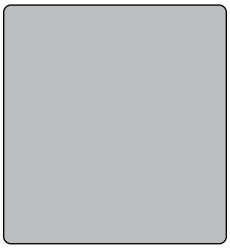
TRACEY S. BOWEN
Principal Physicist, AFRL, Space Vehicles Directorate, Simulation and Analysis Branch


DR. GUMP


DR. GUNZELMANN


MR. MALEK


MR. RAY


MS. BOWEN

This panel emphasizes science and technology efforts at the Air Force Research Laboratory that contribute to Modeling & Simulation capabilities in support of training across the Department of the Air Force. The panel members are leading research efforts at different levels of technology maturity. They will discuss how AFRL is responding to demand signals in this research area and discuss current partnerships and opportunities for collaboration and engagement with other government organizations and industry partners. Specific topics will include the Modeling & Simulation Integration Lab (MSIL), AFSIM, and research portfolios at the 6.2 and 6.3 levels.

THURSDAY, 4 DECEMBER • 1030 – 1200 • ROOM 330EF

FLEET TRAINING WHOLENESS: HOW NAVY TRAINING NEEDS ARE TURNED INTO INDUSTRY SOLUTIONS

MODERATOR

CHRISTOPHER BOYLE
Training Technology, Director, USFFC N72

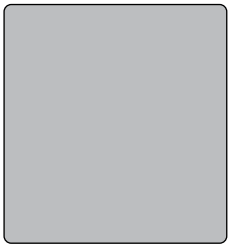
PANELISTS

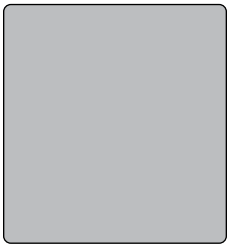
JEFF HURLEY (INVITED)
Deputy CVW/LVC, N98

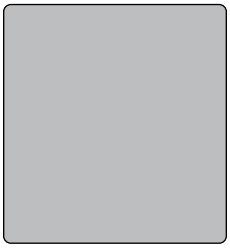
CRAIG FAJARDIN (INVITED)
Training/Manpower, N96

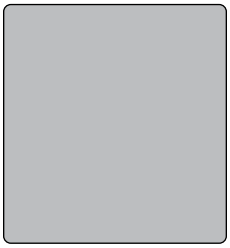
CHRIS TERRY (INVITED)
Fleet Training Ranges, N94

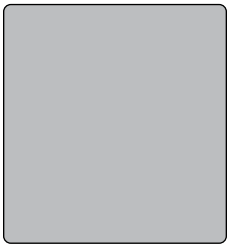
JASON MATTHEWS (INVITED)
Training, N2N6


MR. BOYLE


MR. HURLEY


MR. FAJARDIN


MR. TERRY


MR. MATTHEWS

This event will focus on Fleet Training and how they turn identified training gaps into funded, delivered solutions that deliver Live Virtual Constructive Training to the Navy Warfighter. Participants are experts in the programs and elements of Fleet Training, including representatives from program management, operations, engineering, and range development. The panel will explore how these elements are interconnected and how they collectively contribute to a comprehensive training ecosystem.

MONDAY – THURSDAY, 1 – 4 DECEMBER • EXHIBIT HALL, BOOTH 2285

SERIOUS GAMES SHOWCASE & CHALLENGE

VISIT BOOTH 2285 TO EXPERIENCE BEST IN CLASS SERIOUS LEARNING GAMES!

SGS&C DIRECTOR

JENN McNAMARA
Vice President Strategic Partners and Products, BreakAway Games

COMMITTEE LEADERSHIP

SGS&C INDUSTRY CHAIR
CLIFTON GARNER
SIMETRI

SGS&C GOVERNMENT LEAD
EUGENE PURSEL
USAF, STRATCOM JWAC

MS. McNAMARA

MR. GARNER

MR. PURSEL

In Booth 2285, the Serious Games Showcase and Challenge (SGS&C) provides a casual and interactive showcase of exemplar learning games from businesses, students, and government organizations competing for awards recognizing their achievements. Visit the booth anytime the Exhibit Hall is open to experience exciting PC, XR, and mobile learning games, meet the developers and our organizing committee members, and engage in conversations about applying serious games in your work. Cast your vote for the People's Choice Award by 1800 Wednesday, December 3rd. The People's Choice Award is based on votes from attendees like you. Your I/ITSEC badge includes your ballot.

THURSDAY, 4 DECEMBER • 1030 – 1200 • ROOM 330AB

JOINT ALL-DOMAIN NON-KINETIC TRAINING – CONNECTING LIVE, VIRTUAL AND CONSTRUCTIVE ENVIRONMENTS & RANGES

CREATING A REALISTIC AND EFFECTIVE TRAINING ENVIRONMENT

MODERATOR

LIEUTENANT COLONEL PAUL KUNNAS, USA
Environment Operations Division, Joint Staff J-7

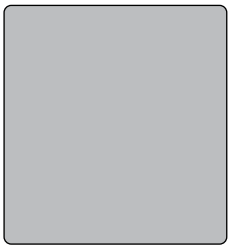
PANELISTS

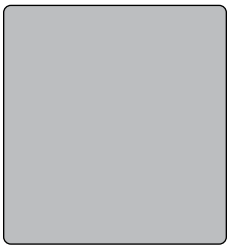
COLONEL TIMOTHY RUSTAD, USA
Chief, Environment Operations Divison, Joint Staff J-7

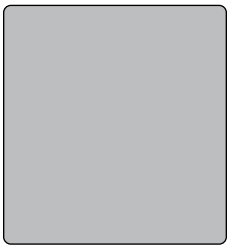
COLONEL GREG PAVLICHKO, USA
Director, U.S. Army National Simulation Center

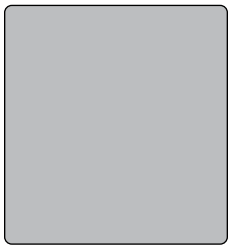
COLONEL MARK MADDEN, USA
Director, U.S. Army Joint Multi-National Simulation Center

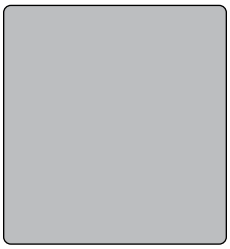
COLONEL STEVE BANKS, USA
Branch Head, NATO ACT M&S


LTC KUNNAS, USA


COL RUSTAD, USA


COL PAVLICHKO, USA


COL MADDEN, USA


COL BANKS, USA

The panel will discuss Joint Range Network objectives; identify non-kinetic trends i.e. sUAS, best practices, and inform COAs for Non-Kinetic Training Integration and Capability Development: Space Cyber EMS Autonomous Systems.

TUESDAY, 2 DECEMBER • 1600 – 1730 • ROOM 330AB

DIGITAL ENVIRONMENTS SUPPORTING DOD M&S, TRAINING, DIGITAL ENGINEERING

MODERATOR

SEAN LITTON
Director, DAF Modeling and Simulation Execution Office, HAF SAF/SA – AFMC AFRL/RS

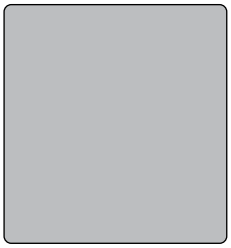
PANELISTS

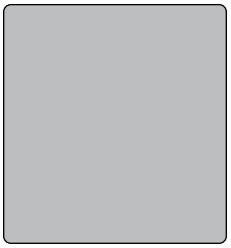
COL HEATH L. McCORMICK, USA
Military Director, AMSO

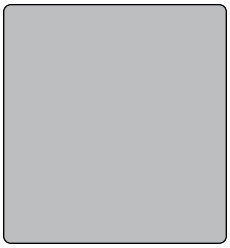
ANDREW BROWNING
Modeling and Simulation Technical Lead, DAF Modeling and Simulation Execution Office, USAF HAF SAF/SA – USAF AFMC AFRL/RS

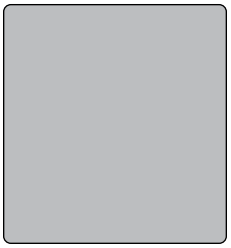
DENNIS W. REED
Director, LIFT/IME, Modeling and Simulation/Live, Virtual, Constructive Lead, Digital Analytics Infrastructure & Technology Advancement Group, NAWCAD

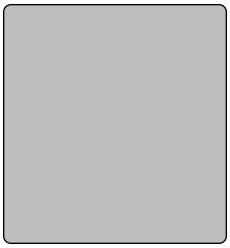
NIKI C. GOERGER, PH.D.
Special Assistant to the Director for the Information Technology Laboratory, U.S. Army Engineer Research and Development Center; DoD HPCMP MS&A Initiative Lead


MR. LITTON


COL McCORMICK, USA


MR. BROWNING


MR. REED


DR. GOERGER

This panel brings together leadership and experts from across the DoD acquisition, research, modeling & simulation, training, and infrastructure communities to discuss current capabilities, roadmap, and challenges associated with DoD Digital Environments. Discussions on current efforts to integrate environments and platforms across the DoD to provide users an available common platform to access tools, data, and compute.

WEDNESDAY, 3 DECEMBER • 0830 – 1000 • ROOM 330EF

ACQUISITION TRANSFORMATION: THE CONVERGENCE OF TEST & TRAINING

AT THE INTERSECTION OF TEST AND TRAINING WE ARE SEEING PREVIOUSLY UNTAPPED EFFICIENCIES AND GAINS FOR OPERATIONAL READINESS

MODERATOR

WHITNEY B. WINCHESTER
Assistant Program Manager
CT2, U.S. Army PEO STRI

PANELISTS

MICHAEL TRUE
Chief Technology Management, Operational Test Command

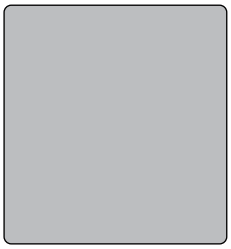
RAPHAEL REYES
Deputy Program Manager, S&T, INDOPACOM T&E Lead, Test Resource Management Center

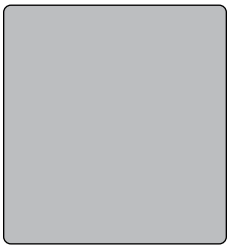
ALLEN CLAYTON
Assistant Program Manager, Deputy/Electronic Warfare Acquisitions Lead, Naval Aviation Training Systems and Ranges Program Office PMA-205 Live Training Environment

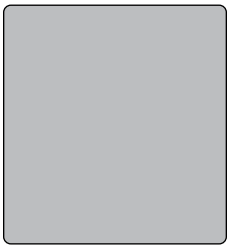
LIEUTENANT COMMANDER MATT KARNY, USN
Ocean Systems Group Lead, In Water Systems, Ocean Systems Group | TRID IPTL, Naval Aviation Training Systems and Ranges Program Office (PMA-205) Live Training Environment

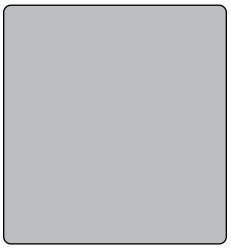
TBD
Air Force

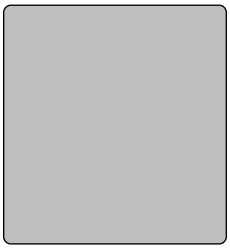
TBD
Space or Air Force


MS. WINCHESTER


MR. TRUE


MR. REYES


MR. CLAYTON


LCDR KARNY, USN

We do not often discuss the connection between the test and evaluation (T&E) and training communities. These are often looked at as two separate domains within the greater scheme of readiness. Over the last couple of years, there has been more discussion and acceptance that many T&E events, especially large-scale, operational test events, are also training events. These large test events such as the ones performed in the Indo-Pacific Combatant Command (INDOPACOM) region allow operators to test and train like they fight. This panel of experts will discuss how these once very separate and specific domains are converging allowing for hands-on, operational test and training, the role these services and lo

WEDNESDAY, 3 DECEMBER • 0830 – 1000 • ROOM 310CD

ARMY LIVE TRAINING – CURRENT & FUTURE

MODERATOR

TBD
Title, Org

PANELISTS

TBD
Title, Org

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Title, Org

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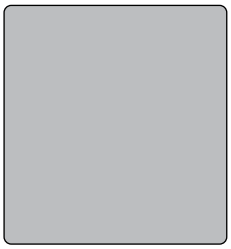

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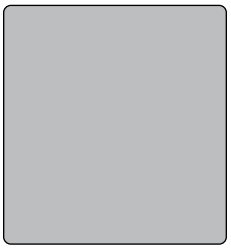

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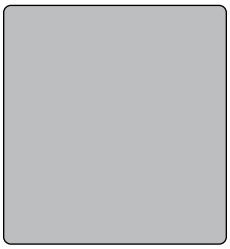

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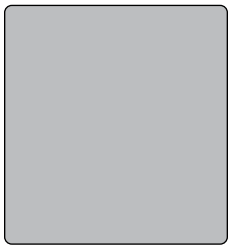

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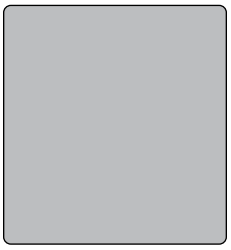

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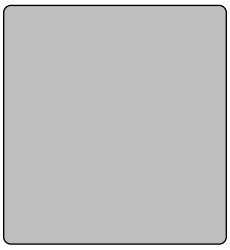


NAME

Provide the Army live training perspective as panel members share information and discuss updates on Army live training – current initiatives, future vision, and alignment to Army modernization. The panel members' discussions and dialogue with the audience will provide valuable information to the training community, so they are best informed toward producing optimal live training solutions for soldiers.

WEDNESDAY, 3 DECEMBER • 1330 – 1500 • ROOM 330AB

HOW OPTIMIZING DIGITAL WARGAMING RESULTS INFLUENCE TRAINING & STRATEGIC INNOVATION FOR MILITARY SERVICE

MODERATOR

LIEUTENANT COLONEL JOSEPH E. TAYLOR, USMC
Program Manager Wargaming Capability, MARCORSYSCOM

PANELISTS

LIEUTENANT COLONEL SCOTTY E. BLACK, PH.D, USMC
Senior Technical Research Analyst, Marine Corps Warfighting Laboratory

MICHAEL P. O'HARA, PH.D.
Chair, War Gaming Department
U.S. Naval War College

COLONEL ARNEL P. DAVID, USA
Director of the Strategic Initiatives Group, Supreme Headquarters Allied Powers Europe (SHAPE)


LTCOL TAYLOR, USMC


LTCOL BLACK, PH.D., USMC


DR. O'HARA


COL DAVID, USA

This session examines how various branches of the military are employing digital wargames as a strategic tool for fostering innovation and enhancing Warfighter readiness in the face of peer/near-peer competition. Attendees will gain insights into the specific methodologies, technologies utilized, and practical applications driving these initiatives, leading to a deeper understanding of how digital wargaming is shaping future operational capabilities. The panel will address the challenges and opportunities presented by integrating digital wargaming into existing training and development programs.

WEDNESDAY, 3 DECEMBER • 1530 – 1700 • ROOM 310AB

APPLICATION OF DATA SCIENCE IN NAVAL LVC TRAINING ENVIRONMENT FOR IMPROVED PERFORMANCE

DATA-DRIVEN LVC: TRAINING SMARTER. WINNING FASTER.

MODERATOR

HEATHER PRIEST, PH.D.
Senior Scientific Technical Manager for LVC Training Solutions, NAWCTSD

PANELISTS

JENNIFER PAGAN
LVC Strategic Planning Manager, ONR; Lead S&T Researcher, NAWCTSD

MICHAEL CHARLTON
Contract Tactics Instructor, EA-18G SME / Integrated Warfare Analyst, NAWDC

CHRISTIAN WINKLE
Senior Data Scientist, ASEC, Inc.

SCOTT COOK
Assistant Program Manager/E-2 SME, ASEC, Inc.


DR. PRIEST


MS. PAGAN


MR. CHARLTON


MR. WINKLE


MR. COOK

The objective of this Special Event Panel is to discuss the significant issues involving data that can benefit from the novel application of science and engineering, including automatic tagging, model development and validation, bandwidth restrictions, latency reduction, data interpretation, interoperability, and analysis. This panel will comprise participants possessing expertise in various facets within Live, Virtual, and Constructive (LVC) for training (LVCt), including Warfighter training instruction, interoperability, human performance and debrief, trend analysis, and test and evaluation (T&E).

THURSDAY, 4 DECEMBER • 0830 – 1000 • ROOM 330AB

COMMON SYNTHETIC ENVIRONMENT FOR NATO MULTI-DOMAIN OPERATIONS

AGILE DELIVERY OF SIMULATION CAPABILITIES FOR NATO MULTI-DOMAIN OPERATIONS. #GOSTANDARDS

MODERATOR

WIM HUISKAMP
Chief Scientist Modelling & Simulation, TNO Defence Research (The Netherlands); Scientific Advisor, NATO M&S Group

PANELISTS

SIMON SKINNER
Product Policy Leader, Thales Training & Simulation (UK); Vice Chair, NATO M&S Group

COLONEL STEPHEN BANKS, USA
Branch Head, Modelling and Simulation Learning Technologies, NATO ACT (USA)

KATHERINE L. MORSE, PH.D.
Principal Research Engineer, Georgia Tech Research Institute (USA); SISO EXCOM Chair

MATT SMITH
Senior Analyst, Simulation, Training and Research Software Team, Defence Science and Technology Laboratory (UK)

NATO OTAN
Modelling and Simulation Group
Neuilly-sur-Seine | France


MR. HUISKAMP


MR. SKINNER


COL BANKS, USA


DR. MORSE


MR. SMITH

Multi-Domain Operations (MDO) represents a pivotal shift in NATO's approach. At its core, MDO refers to the push for NATO to orchestrate military activities across all operating domains and environments. These actions are synchronized with non-military activities.The NATO Modelling and Simulation Group (NMSG) and its partner, the Simulation Interoperability Standards Organization (SISO), have invited representatives from R&D, industry and armed forces to discuss the vision on the use of M&S to address the challenges of MDO in a coalition context. The presenters will provide an overview of current simulation capabilities and ongoing standardization efforts.

WEDNESDAY, 3 DECEMBER • 0830 – 1000 • ROOM 330CDGH

USAF PEO TRAINING: ACQUISITION UPDATE

MODERATOR

RODNEY STEVENS, SES
Air Force Program Executive Officer, Training

PANELISTS

COLONEL RICARDO JAIME, USAF
Senior Materiel Leader, Advanced Training Capabilities Division

COLONEL NICHOLAS FERANEC, USAF
Senior Materiel Leader, Simulators Division

This panel provides an in-depth update on Program Executive Office Training's ongoing initiatives, industry opportunities and future vision for acquiring and delivering next-generation training systems to the Warfighter. Senior leaders and program managers will discuss key modernization efforts within the training acquisition portfolio.

Don't miss the update on JSE!

WEDNESDAY, 3 DECEMBER • 1030 – 1200 • ROOM 330AB

PM TRASYS – ACQUISITION UPDATE

MODERATOR

LIEUTENANT COLONEL DAVID B. BAIN, USMC
Deputy Program Manager, PM TRASYS, MARCORSYSCOM

PANELISTS

RACHAEL GERMANSKY
Product Manager, Range Training Systems, PM TRASYS, MARCORSYSCOM

ELIZABETH TYGART
Product Manager, Synthetic Training Systems, PM TRASYS, MARCORSYSCOM

ADAM EMANUEL
Product Manager Warfighter Training Support, PM TRASYS, MARCORSYSCOM

This session will provide attendees with the latest information on the acquisition strategies and progress for our diverse range of training solutions. The presentation will cover key milestones achieved, upcoming opportunities, and insights into how our advanced simulation technologies are shaping the future of defense training. Attendees will gain a comprehensive understanding of our product roadmap and how we are meeting evolving customer needs across all domains.

WEDNESDAY, 3 DECEMBER • 1530 – 1700 • ROOM 330EF

USSF OPERATIONAL TEST & TRAINING INFRASTRUCTURE ACQUISITION UPDATE

MODERATOR

TBD
Title, Org

PANELISTS

LIEUTENANT COLONEL CURTIS BABBIE, USSF
Physical Test & Training System Program Managers (SPM), SYD 81

LIEUTENANT COLONEL LINDSEY BUCKLE, USSF
SYD 81

LIEUTENANT COLONEL KADE EWERT, USSF
Infrastructure System Program Managers (SPM), SYD 81

LIEUTENANT COLONEL JESSICA MAHONEY, USSF
Readiness System Program Managers (SPM), SYD 81

LIEUTENANT COLONEL SCOTT PEEPLES, USSF
Digital Test & Training System Program Managers (SPM), SYD 81

This Panel delivers a U.S. Space Force (USSF) Operational Test and Training Infrastructure (OTTI) Acquisition Update from the System Program Managers (SPM) responsible for Infrastructure, Physical Test & Training, Readiness, and Digital Test & Training portfolios. Panelists will provide programmatic status on capability development, and integration, outline near-term decision points; and address risks, dependencies, and opportunities for Industry and Government partners.

Key Takeaways: Program Status and Near-Term Opportunities: Current phase, upcoming milestones, and critical path items across Infrastructure, Physical, Readiness, and Digital lines of effort.

Integration and Interoperability Priorities: How OTTI is aligning architectures, data, and interfaces to enable training.

Recommended Participants: O-5/O-6 Command Teams, Senior Enlisted Leaders, and Unit/Delta Operations and Training Leadership. Program Managers, Chief Engineers, Requirements Leads, and Professionals supporting M&S/LVC, ranges, and training systems. Government Civilians and Mission Partners engaged in acquisition planning, fielding, and sustainment. Industry Executives, Capture Leads, and Technical Directors seeking relevant guidance on integration, schedule, and operational value.

THURSDAY, 4 DECEMBER • 0830 – 1000 • ROOM 330EF

NAVY VISION FROM TRAINING SYSTEMS PROGRAM MANAGERS

MODERATOR

MIKE MERRITT
Acquisition Director, NAWCTSD

PANELISTS

CAPTAIN ROB BETTS, USN
Commander, NAWCTSD

DAVID KEMP (INVITED)
Director, RRL, PEO Major Business Systems

CAPTAIN JAMES RORER, USN (INVITED)
PM, F35 Training

CAPTAIN JONATHAN SCHIFFELBEIN, USN (INVITED)
PMA 205

This panel, representing a broad spectrum of programs and capabilities vital to the Navy's training mission, offers a unique perspective. They will delve into the year's most significant program highlights and articulate their strategic vision for the future of Navy training. This is an excellent opportunity to learn directly from key decision-makers and program managers about the evolving landscape of Navy training and how it adapts to meet emerging challenges. The insights shared will be beneficial to anyone involved in or interested in the technology and strategies shaping the future of naval training.

THURSDAY, 4 DECEMBER • 1100 – 1500 • ROOM 330CDGH

ARMY ACQUISITION UPDATE (TSIS UPDATES)

MODERATOR

TBD
Title, Org

PANELISTS

TBD
Title, Org

The U.S. Army Program Executive Office Simulation, Training and Instrumentation (PEO STRI), Training Simulation Industry Symposium (TSIS) updates at I/ITEC will provide the latest information regarding current and future PEO STRI business opportunities. The is an update from the June 2025 TSIS.

TUESDAY, 2 DECEMBER • 1400–1530 • DESTINATION LOUNGE

FUTURE CONCEPTS

MODERATOR AND SPEAKERS


MR. KLEINHAMPLE


MS. SCHAUMANN


DR. RUTHERFORD


MR. WILSON


MR. PATTON, JR.


MS. BURNS

Moderator: Bob Kleinhample, Chief Executive Officer, PioneerSim

Beyond the Coming Cyber War

This session will be a 15-minute call to action: build resilience, run table-top exercises, eliminate single points of failure, and teach our teams (and kids) how to think creatively again. Because if we can't improvise under pressure, we've already lost. The next big thing isn't some futuristic cyber war—it's whether we can keep moving forward when the map is lost, the torches are out, and the dragon's already breathing down our necks.

Speaker: Andrea Schaumann, Director, Federal Engagement, Fortress

The Training Singularity

By 2035, we may reach a "Training Singularity" that could upend MS&T as AI outpaces human cognition and scales exponentially, collapsing today's linear, instructor-centric model. This moderated session examines early signals such as AI agents used in planning, mission orchestration, and adversary roles at machine speed and paints a picture of a 2035 setting where students coordinate with AI in system-integrated environments. We'll explore impacts on doctrine, learning pipelines, and evaluation, highlight AI-driven post-mission debrief could look like through a 2035 scenario, and urge rebuilding frameworks now.

Speakers: Hart Rutherford, Ph.D., Chief Operations Officer, PLEXSYS Interface Products, Inc.; Ethan Wilson, Solution Strategy Analyst, PLEXSYS Interface Products, Inc.; and Brooks Patton, Jr, Founder & CD, Contest Highground, LLC

Convergence, Collaboration, and Commercialization: Shaping the Future of the Modeling, Simulation, and Training (MS&T) Market

In a world where conflict is increasingly digital, immersive, and data-driven, the defense Modeling, Simulation & Training (MS&T) market is undergoing a seismic transformation. Emerging technologies will accelerate convergence across traditionally siloed communities. Geopolitical shifts and surges in international defense spending spotlight the need for tech that boosts interoperability and joint operations against evolving threats. Meanwhile, the rise of new business models and evolving buying behavior stand to change the trajectory of tech commercialization and adoption. Whether you're a defense contractor, tech innovator, or government user or acquisition professional, discover how to position your organization at the forefront of this rapidly evolving landscape.

Speaker: Sam Burns, Director, Aerospace, Defense, & Government Practice, Oliver Wyman

TUESDAY, 2 DECEMBER • 1600–1730 • DESTINATION LOUNGE

FUTURE TRAINING CONCEPTS

MODERATOR AND SPEAKERS

MR. BENNETT

MS. McARDLE

MR. SORRENTI

Moderator: Winston Bennett, Ph.D., Modeling and Simulation Engineer Senior Principal Support, SAIC

The Seven Deadly Sins of Training

The report opens by assessing the changing character of training through a tripartite framework: software, data, and models, all under the rubric of advances in learning science. It then pivots and explores how paradigm shifts in warfighting need to inspire similar paradigm shifts in training, all through seven deadly assumptions about the way we fight that are no longer valid.

1. Training for Degredation Dominance
2. Training for a Lack of Sanctuaries
3. Training for the Integration of AI and Autonomy
4. Training for Contested Logistics
5. Training for Protraction
6. Training for Large Scale Urban Conflict
7. Training for the Simultaneity Challenge (i.e., training for multi-mission and multi-theater challenges)

The report is framed (open and closing) around the large-scale paradigm shifts in training that took place during the Cold War as a model for what needs to occur today. We realized that the way we fought had changed and as a result that inspired large scale shifts in training. We are overdue for a similar shift.

Speaker: Jennifer McArdle, Ph.D., Director, US Operations, Helsing AI

Why Training Robots in Games Could Be the Smartest Idea in Tech

Robotics has long been constrained by slow, costly, and risky real-world training. Teaching a machine to assemble a product, or navigate a disaster zone can take months of painstaking trial and error.

But what if robots could play before they work? By harnessing game engines like Unity, Unreal, and NVIDIA Omniverse, we can now create photorealistic training grounds where robots learn the way children do—through trial, error, and repetition at superhuman speed.

This simulation-first revolution is transforming robotics as profoundly as the shift from analog to digital. From battlefields and rescue operations, leading teams are already using synthetic environments to train smarter, safer, and faster machines.

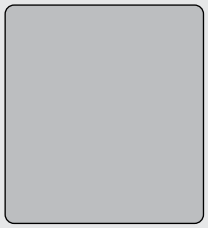
Explore how game technology is giving robots a "childhood," why this shift is driving market growth, and what opportunities—and risks—await those ready to build the next generation of embodied intelligence.

Speaker: Mike Sorrenti, President and Founder, Game Pill, Inc.

TUESDAY, 2 DECEMBER • 1600–1730 • DESTINATION LOUNGE

CDAO PERSPECTIVE

MODERATOR AND SPEAKERS



HON. NORQUEST

DR. MATTY

Moderator: The Hon. David Norquest

Autonomy Has Dependencies: How CDAO is Driving Adoption

Dr. Matty comes as a technical expert with a working background in the federal government. He will discuss the CDAO's direction, how it supports the warfighter, and how it interacts with industry and academia.

Speaker: Douglas Matty, Ph.D., Chief Digital and AI Officer, Department of War

WEDNESDAY, 3 DECEMBER • 1030–1200 • DESTINATION LOUNGE

SPATIAL COMPUTING AND WORLD MODELING

MODERATOR AND SPEAKERS

MR. DE FIGUEIREDO

MR. WOODWARD

MR. McCLENDON

Moderator: Gastao De Figueiredo, VP, GTM Operations, dWave Quantum

The Future of MS&T and AI World Foundation Models

The MS&T visual simulation community has traditionally used standard 3D graphics pipelines in an effort to provide realism, driven by manual content workflows and human-defined shading algorithms. In spite of decades of technological development, and with significant improvements along the way, real-time graphics still fall far short of fully reaching real-world fidelity. As AI rapidly matures, new methods are set to enable significantly higher levels of realism than has ever been possible using traditional graphics methods, both for visible and non-visible spectrum visual simulation applications. This talk will discuss the current state of the art for AI world foundation models and where the technology is likely moving in the next few years.

Speaker: Tim Woodard, Sr. Solutions Architect, NVIDIA

Helping AI Understand Geography to Create a Machine-Readable World

NIANTIC

Effective training requires simulations that are as complex and unpredictable as the real world. Join Brian McClendon, CTO of Niantic Spatial, a pioneer of digital mapping - who first attended I/ITSEC in 1995 for the private launch of SGI's Infinite Reality - for a fireside chat on the role of geospatial AI as a new layer for training and simulation, moderated by an executive from Aechelon Technology (either CEO Nacho Sanz-Pastor or Chief Strategy Officer Javier Castellar). This discussion will dive into how technologies like multi-source scanning (phones, drones, satellites), Gaussian splatting, and Large Geospatial Models are creating a dynamic, 3D visualization of our world that is readable by machines as well as people.

Speakers: Brian McClendon, Niantic Spatial, Inc. and Javier Castellar, Chief Strategy Officer, Aechelon Technology

WEDNESDAY, 3 DECEMBER • 1330–1500 • DESTINATION LOUNGE

HUMAN/MACHINE TEAMING

MODERATOR AND SPEAKERS


DR. STENSRUD


MS. LUM


MR. MEIL


MR. RUTHS

Moderator: Brian Stensrud, Ph.D., CAE USA

Human-Animal Teaming as a Model for Effective Human-AI Robot Teams

Our project focuses on the intersection of human animal teaming and human agent teaming. During my time here at the Air Force Academy working alongside some amazing researchers, we have developed an experimental study that utilizes a triad team of 2 humans and 1 quadruped robot. The task will be for the team to work together to move within an environment, secure any potential threats, and locate a source. This will mimic an urban search and rescue task and the team members will have to work together and utilize each other's distinctive skills and abilities in order to complete the task. The results of this study will be discussed during the ITTSEC talk and help to advance the human-nonhuman model structure we are proposing.

Human-animal teams have long utilized a unique dynamic to accomplish their missions. Unlike human-human teams, human-animal teams have to work together without the benefit of a common natural language so they instead must rely heavily on other communication and environmental cues in order to understand what each wants and needs from the other. The reason that we use animals, especially dogs, is because their sensory abilities (especially their olfaction) are far superior to that of any human counterpart. Similarly, we use robot entities because of their ability to go into places we can't (such as Mars and other space missions), because of their information processing power, amongst other skills. This falls into the notion of "what's next" as I will use the TED style talk format to discuss our specific human-animal team model. Instead of trying to make AI robot team members more human-like, as we often do, we propose to examine and use the human-animal team model to create a more effective human-robot team dynamic.

Speaker: Heather Lum, Arizona State University

Crossing the Valley: Composable Intelligence and the Model Control Plane

Mission environments demand AI models from diverse sources (open-source, proprietary, commercial, and government) to work together seamlessly. But without orchestration, these models remain fragmented, creating brittle, unscalable interfaces between capability and mission. This TEDx style talk introduces "Composable Intelligence," a framework enabled by AI model control planes and model of model orchestration. It provides the connective layer to validate, monitor, secure, and govern heterogeneous models across their lifecycle. The embedding of dynamic lifecycle management and adversarial protection into the infrastructure accelerates the transition from prototype to persistent deployment. This supports bridging the valley of death between experimentation and mission adoption across training and simulation environments.

Speakers: Jay Meil, Chief Data Scientist, SAIC

Advancing Human-Autonomy Collaboration: Continuous Simulation in Defense Operations

The integration of human operators and autonomous systems is becoming increasingly prevalent in modern defense operations. However, there are still significant gaps in operator confidence and planning effectiveness when using these systems. Low confidence and poor deployment can lead to wasted potential or, even worse, serious risks to man and machine. As militaries adopt these technologies, how can the simulation and training community enhance the warfighter's ability to collaborate with these systems and trust in their effectiveness?

In this presentation, we will explore how continuous simulation—integrated at every phase of the warfighter's planning process, from receiving the warning order to conducting mission rehearsals—can bridge this gap. By empowering warfighters to build confidence in autonomous solutions and explore optimal deployment strategies, we can enhance their operational effectiveness.

Join us as we uncover how optimizing human-machine collaboration with simulation can help warfighters win the wars of tomorrow.

Speaker: Weston Ruths, Senior Software Product Manager, Anduril

ANDURIL

WEDNESDAY, 3 DECEMBER • 1530–1700 • DESTINATION LOUNGE

QUANTUM COMPUTING

MODERATOR AND SPEAKER

MR. DE FIGUEIREDO

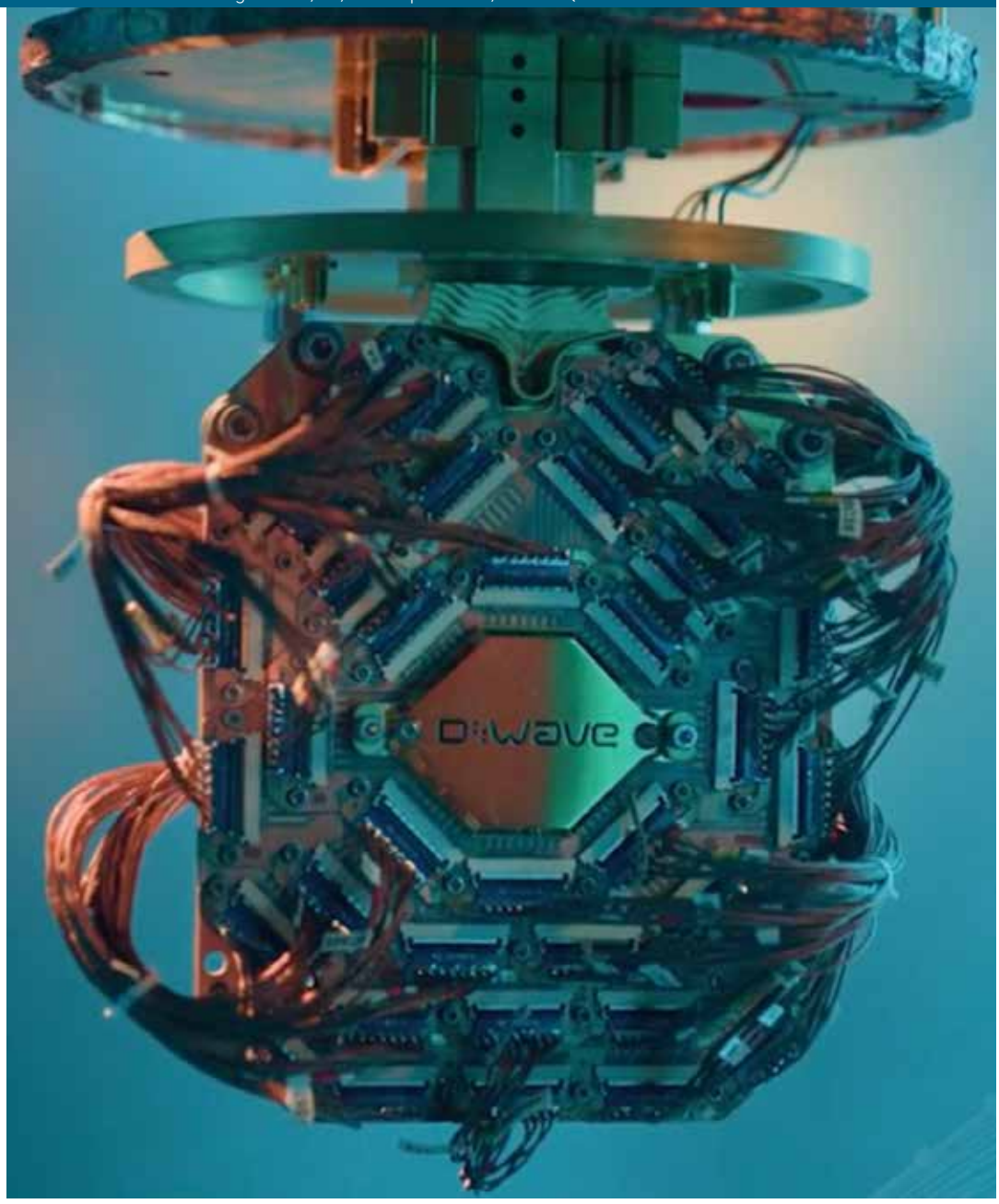
MR. LANTING

Moderator: Gastao De Figueiredo, VP, GTM Operations, dWave Quantum

Applying Quantum Annealing Technology

Quantum computing harnesses quantum dynamics to deliver powerful new computational tools for solving hard problems. In this presentation we will discuss how technologies such as quantum annealing provide breakthrough capability to tackle complex combinatorial optimization problems. This capability can help power large scale simulations and use cases in logistics, personnel scheduling, and enhancing generative AI models. We will discuss exciting customer applications that are made possible by the largest quantum processors in the world. We will also discuss the evolution of this technology and our development roadmap

Speaker: Trevor Lanting, Chief Development Officer, D-Wave Quantum, Inc.



THURSDAY, 4 DECEMBER • 0830–1000 • DESTINATION LOUNGE

WEARABLES AND HUMAN SENSORS

MODERATOR AND SPEAKERS


MS. DUHON


MR. BEY


MR. BRUNI


DR. BAIR


MR. COOLEY

Moderator: Alethea Duhon, Ph.D., Director, Modeling, Simulation, and Training, KBR

Integrating Wearables into Simulator Training for Human Cognitive and Stress Assessment

The cognitive load on our warfighters has increased significantly. With not just more complex environments to handle, our warfighters have more systems, more screens to look at, more information to integrate before a decision can be made. Artificial Intelligence is also not a panacea. If not implemented well, AI can actually further increase the cognitive load of our people.

How do we train the brains of our people better, how do we assess their cognitive growth objectively, and leave it less to chance and subjectivity? How do we help them on work and off work, manage their sleep and stress like a high performance athlete?

In my presentation I will talk about how the Republic of Singapore Air Force is tackling this issue using commercial off the shelf wearables and other modern techniques so that we can screen more accurately, tailor training to individuals, and help them to maximise their own potential. Our market surveys show few vendors offer integrated solutions that match simulators with human performance measures, and hence the need for co-developed solutions.

Speaker: David Bey, Organizational Architect, Royal Singapore Air Force

Cognosomatics: The Rise of Embodied Agents for Human-AI Fusion in 2030 Training Ecosystems

"This talk introduces Cognosomatics, a visionary leap in human-AI teaming where embodied agents serve not as instructors or tools, but as adaptive, biosymbiotic teammates. Designed for the training and operational ecosystems of 2030, cognosomatic agents fuse physiological sensing, cognitive modeling, agentic AI, and robotic augmentation into a closed-loop system that continuously co-evolves with the human. These agents don't just observe performance; they sense stress, predict intent, and act in synchrony with the learner to optimize performance, resilience, and mission readiness across training and operational contexts.

By integrating cutting-edge technologies projected to mature by the end of the decade, such as LLM-driven agentic AI, digital twins of human state, multimodal neurophysiological sensing, and bi-directional human-machine interfaces, cognosomatics transforms training into an embodied, lifelong process of human-machine fusion. In doing so, it offers a scalable, personalized alternative to traditional simulation paradigms, extending adaptive training into live operational augmentation.

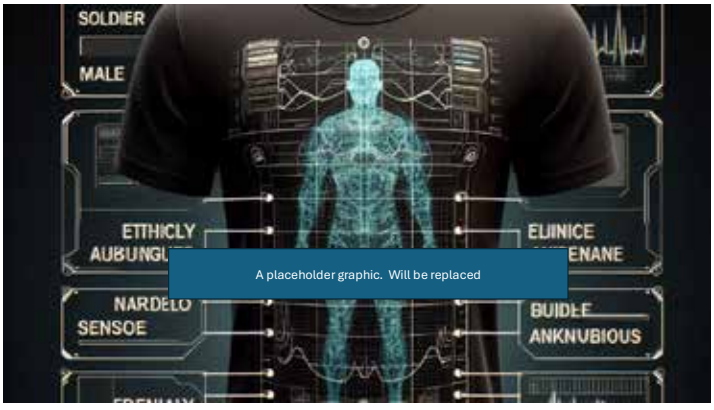
This presentation challenges the I/ITSEC community to envision a future where warfighters do not train alone or with static systems, but with AI teammates who grow, learn, and fight alongside them. The approach directly addresses the demands of multi-domain, high-intensity operations by enabling training that is persistent, personalized, emotionally intelligent, and operationally embedded. Cognosomatics is not a tweak to the status quo; it's a blueprint for the next generation of mission-ready human-machine ecosystems."

Speaker: Sylvain Bruni, Ph.D., Principal Engineer, Aptima

Convergence of Emerging Technologies Enable Real-time Cognitive Performance Feedback

Innovations may materialize from many avenues. This TalX presents how two technologies, EEG sensing via e-textile, and artificial intelligence are both being developed independently to improve their respective domains as well as being integrated together for a more synergistic and novel solution for the warfighter. As our community innovates with emerging technologies, we are gong to have to overcome adoption issues which arise. We will describe some of the cultural adoption issues and the strategies to address these. The warfighter problem being addressed with innovation is research in improving warfighter cognitive performance in real-time.

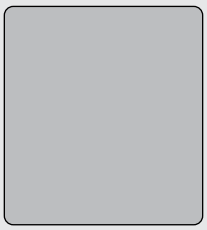
Speaker: Amy Bair, Ph.D., Advisory Board Member, Nuream and Rob Cooley, Chief Executive Officer, Nuream



THURSDAY, 4 DECEMBER • 0830–1000 • DESTINATION LOUNGE

AI FLUENCY INITIATIVE IN HIGHER EDUCATION (THE OHIO STATE UNIVERSITY)

MODERATOR AND SPEAKER



DR. WINER

VADM CARTER, USN (RET.)

VADM GARVIN, USN (RET.)

Moderator: Eliot Winer, Ph.D., Director, VRAC Research Center, Iowa State University

AI in Higher Education

The purpose of this special event is to give our training, simulation and education community perspectives from senior leaders on this very important topic which they can consider as they seek AI implementation initiatives in their organizations to train and educate future warfighters. Some key discussion points will revolve around the following areas:

- What are the major elements of the AI initiative?
- Why do we need to educate future leaders on AI?
- What are the cultural barriers that need to be overcome in implementing or not implementing AI embedded in education?
- Given the near completion of the fall semester, what are some of the lessons learned, pros and cons of the initiative?

Speaker: VADM Ted Carter, USN (Ret.), President, Ohio State University and VADM Pete Garvin, President, National Defense University

INTERNATIONAL PAVILION

ROOM S310E-H

International attendees can meet and connect with counterparts from around the world. Limited private meeting space is available on a first-come, first-served basis to our international participants and may be scheduled at the International Pavilion's Welcome Desk. Additional information about the many international activities throughout I/ITSEC is readily available in the International Pavilion.

International registrants should register at the dedicated international check-in station positioned near the main registration desk in the lower level of the South Concourse. International conference attendees' meeting bags will be available for pick-up at the main registration desk this year.

INTERNATIONAL PAVILION HOURS OF OPERATION

Monday, 1 December	0800 – 1800
Tuesday, 2 December	1200 – 1800
Wednesday, 3 December	0800 – 1500
Thursday, 4 December	0800 – 1500

INTERNATIONAL PAVILIONS

Australia	1961
Canada	1969

PAVILION SPONSOR: A. HAROLD AND ASSOCIATES, LLC



WEDNESDAY, 3 DECEMBER • 1000 – 1130 • INNOVATION SHOWCASE, BOOTH 1995

Best from Around the Globe features the Best Paper awardees of MODSIM World and IT²EC. Each of the winners was selected by a committee and criteria specific to the particular global conference focus and theme. Come hear the award winners offer their outstanding presentations from these prestigious international conferences.

To view session descriptions, please view the Digital Program at **IITSEC.org/Agenda/Agenda-Details.**
The most up-to-date session information is available on the mobile app.

BEST FROM AROUND THE GLOBE

IT²EC 2025 BEST PAPER

ACCELERATING NAVY READINESS WITH MOBILE VIRTUAL REALITY (VR) AND HANDHELD GAMING PC SIMULATIONS IN THE FLEET

Anders Gronstedt, Ph.D., The Gronstedt Group, Denver, CO

AUSTRALASIA SIMULATION CONGRESS 2025 (ASC25) BEST OVERALL PAPER AWARD (AND BEST STUDENT PAPER AWARD)

GAMIFYING TRAFFIC INCIDENT RESPONSE: A SIMULATION-BASED TRAINING MODEL FROM THE DUBAI POLICE ACADEMY

Major Ahmad Alsuwaidi, Dubai Police Academy, Dubai, United Arab Emirates

MODSIM WORLD 2025 BEST PAPER

ENGINEERING MENTAL WELLNESS: A DIGITAL TWIN FOR CHRONIC STRESS MODELING AND REAL-TIME INTERVENTION

Valentina Ezcurra, University of Central Florida, Orlando, FL

ASC25

BEST HEALTH PAPER AWARD — INNOVATION SHOWCASE • 1130-1200

INCORPORATING AI CONVERSATION AGENTS INTO SIMULATION-BASED LEARNING FOR NURSING STUDENTS

Danielle Gradner, University of Technology Sydney (UTS), Australia

ASC25 BEST NON-HEALTH PAPER AWARD — STEM STAGE TBD

SIMULATION-BASED LEARNING — IS IT ONE SIZE FITS ALL? A MODEL FOR DESIGNING IN DIVERSITY OF LEARNERS TO ENGENDER LEARNER INCLUSIVITY

Dr. **Amanda Davies,** Charles Sturt University, Australia

EXHIBIT HALL

CYBER PAVILION

BOOTH 2369

2025 NTSA CYBER PAVILION at I/ITSEC provides events and engagements with Cyber, Electromagnetic, Wargaming, and Information Warfare leaders, developers and educators. Corporate sponsorship enables these areas:

- **Communication** about opportunities that span Cyberspace and Electromagnetic Warfare operations from the Tactical through Operational and Strategic levels; Integration support for policy makers and staffs, EW/Cyber/SIGINT operations; Information Warfare challenges, understanding about Mis/Dis-Information Campaigns, and Multi- Domain Operations
- **Understanding** of current Defense Department service perspectives: U.S. Army Cyber Command, Army Cyber Center of Excellence, USAF (16th AF IW Command), Navy (U.S. Fleet Cyber Command) and Marines (USMC Force Cyber Command), Coast Guard (USCG Cyber Command); Department of Homeland Security (Cybersecurity and Infrastructure Security Agency CISA), International Partners perspectives
- **Education** about Academic opportunities, studies and workforce development and model & tool development
- **Presentations and Demonstrations** of applications, training, and technology approaches in development or in use to support operational organizations

As the capabilities enabling training and simulation support for cyber, electromagnetic, wargaming and information warfare areas continue to evolve and expand across the U.S. Government and military services, the Cyber Pavilion serves as NTSA's enabling platform at I/ITSEC for professional dialog, networking, cooperation, and discovery of solutions to address the challenges presented by Cyberspace for Information Warfare and Multi-Domain Operations. Events and attendees span U.S. Government, Department of Defense, Department of Homeland Security, International Partner Nations, Industry and Academia. Senior leaders from many organizations will attend and speak at the Pavilion. Sponsorship delivers better understanding of current capabilities and assists in communicating the needs across organizations and services. Support the proven success of the Cyber Pavilion and the pursuit of solutions at I/ITSEC.

NOTABLE ATTENDEES • NETWORKING CONTACTS ALL AT THE CYBER PAVILION:

SPECIAL EVENT – COMMENTS FROM CURRENT AND FORMER OPERATIONAL GENERAL OFFICERS

- An I/ITSEC SPECIAL EVENT: *Cyberspace – Perspectives on Challenges of Future Multi-Domain Operations Panel*

DISCUSSIONS ON CURRENT TOPICS

- Panel on CMMC Impacts and How to Position Your Company for Success
- Mis/Dis Information – Impact on How We Prepare and Execute Conflicts
- AI Impact – LTG(R) Ed Cardon
- Bringing Cyber, Electronic, Information Warfare into M&S
- Cyber Readiness and Training
- And many more topics!

CYBER PAVILION SPONSORS

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INNOVATION SHOWCASE

Exhibit Hall – South Hall • Booth 1995

Presentations within the Innovation Showcase are led by cutting-edge exhibiting companies and government agencies that are knowledgeable on the various subject matter within the M&S Industry. Be sure to stop by one of the 30-minute sessions to hear what is new and exciting in M&S! Check the onsite schedule for any changes or updates to the Innovation Showcase schedule.

The most up-to-date information will be available on the mobile app, website, and onsite during I/ITSEC.

AS OF XX MONTH 2025

MONDAY, 2 DECEMBER	
TUESDAY, 3 DECEMBER	
WEDNESDAY, 4 DECEMBER	
1000 – 1130	Best from Around the Globe Presentations
1145 – 1215	Healthcare Paper Presentations
THURSDAY, 4 DECEMBER	
1300 – 1400	Serious Games Showcase & Challenge Awards

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EXHIBITORS

AS OF 4 SEPTEMBER 2025

NTSA Sustaining Member • NTSA Regular Member • NTSA Associate Member

2 Circle Inc.	527
3D perception	1201
4C Strategies	1727
A Square Games and Simulation, LLC	332
Ace Computers	512
AceXR LLC d.b.a. Ace Virtual Shooting	240
Acme Worldwide Enterprises, Inc.	307
Adaptive Immersion Technologies	267
Adder Technology	1781
Adjuvo Technologies, LLC	487
Adobe	323
ADS, Inc.	271
ASTi	1458
Advanced Training Systems, LLC	412
Aechelon Technology	1301
ASI (Aero Simulation, Inc.)	749
Aerotronics, LLC	229
Air Force/Space Force	1339
Air Force Flight Line	249
Akima	635
AMERICAN SYSTEMS	407
Anatomage	1980
Antaris, Inc.	440
Army Modeling & Simulation Office	2220
Applied Training Solutions, LLC	2081
Aptima, Inc.	401
ARA: Applied Research Associates	2541
Athena Technologies LLC	2548
Atlas Electronics, Inc.	217
Aurizn	2087
AV	887
AVADirect	167
Avalon Holographics	168
Aviation Instrument Tech, Inc.	587
Aviation Training Consulting. LLC (ATC)	1987
AVT Simulation	1281
BadVR	466
BAE Systems	1649
Bagira / Bagira Systems	734
Barco, Inc.	1421
Battle Road Digital, Inc.	1230
Battlespace Simulations, Inc.	1411
B-Design3D	1277
BetaFlix, Inc.	1386
Bihrle Applied Research, Inc.	1081
Blackboard by Anthology	470
Blackshark.ai	965
Blue Marble Geographics	480
Bluedrop USA	387
BMK Ventures	1586
Booz Allen Hamilton	1915
Boresight USA	329
Bugeye Technologies	1900
By Light Professional IT Services LLC	1249
C2 Technologies	1660
CAE	1433
Capgemini	621
Carahsoft	2181
CATI Training Systems	1267
Central Florida Tech Grove	367
Cesium	221
Clark Synthesis, Inc.	321
Cognitive3D	381
Cole Engineering Services, Inc. (CESI), a By Light company	1249
Collins Aerospace	2201
COLSA Corporation	1827
Command Post Technologies, Inc.	2271
Concurrent Real-Time	1721
Conflict Kinetics	1768
Connections Café	100
Control Products Corporation	524
Convai Technologies, Inc.	186
Cordoniq	1295
Corsair for Business	763
Corvalent	325
Craftsmen Industries	231
Cubic Defense	1013
Cy4Data Labs	1092
Cyber Florida at USF	2188
Cyber Pavilion	2369
CymSTAR LLC	1466
Dalcomm Tech LLC	233
David Clark Company Incorporated	432
Dedicated Computing	1815
Defense Maritime Solutions	959
Delaware Resource Group of Oklahoma, LLC	663
Design Interactive, Inc.	606
Diamond Visionics	649
DART Range Simulation Training	380
DigitalCM, LLC	600
Dignitas Technologies	2081
Displays & Optical Technologies, Inc.	1715
DiSTI Corporation	1171
DLH Corporation	1921
DoD Anti Tamper Executive Agent	2186
Doron Precision Systems, Inc.	1481
Driven Technologies, Inc.	1412
dSPACE Inc.	2427
Dynamic Graphics, Inc.	2457
E2M Technologies BV	2365
EcosySTEM of Learning Pavilion	2385
EDM Ltd.	687
EducationXR	468
Eduworks Corporation	1957
Elbit Systems Ltd.	1835
Electric Picture Display Systems	909
Embry-Riddle – Gaetz Aerospace Career Academy	1589
Embry-Riddle Aeronautical University	422
Engineering & Computer Simulations, Inc.	833
Unreal Engine/Epic Games	1935
Esri	239
ETE Technology A.S.	463
Explotrain, LLC	312
Extreme Simulations Ltd.	1988
FAAC	2327
FLAIM Systems	280
FN America, LLC	1001
Fondazione Safe	1293
FoxGuard Solutions	2113
Frasca a FlightSafety International Company	1049
FSI Defense, A FlightSafety International Company	1049
Future Technologies	1941
Gaumard Scientific	1681
GBvi Ltd.	662
GDIT	713
General Dynamics Mission Systems	701
GitLab	987
GlobalSim, Inc.	2288
GovCIO	867
GovSignals	174
GREEN AMMO	287
Group W	2190
GUARDIARIS d.o.o	2161
Haptech Defense Systems	671
HAVIK Solutions LLC	612
Health Scholars	366
HigherEchelon, Inc.	2534
HII	2049
HIPER Global US	337
HOLOGATE GmbH	469
Hololight GmbH	428
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HTX Labs, Inc.	2409
Hui Huliau	1786
Human Systems Integration, Inc.	2089
Immersive Display Solutions, Inc.	871
Incubator Booths	2195
Industrial Smoke & Mirrors	2001
Industrial Structures	781
Information Systems Laboratories, Inc.	433
Ingalls Information Security	680
Inhance Digital Corporation	1209
Innovation Showcase	1995
Integration Innovation, Inc. (i3)	2261
Intelligent Video Solutions	1686
Inter-Coastal Electronics, LLC (ICE)	2327
InVeris Training Solutions	1401
iPerformX LLC	1701
Israel Aerospace Industries Ltd. (IAI)	1461
ITEC	1494
ITI Engineering	301
JF Taylor, Inc.	1900
JANUS Research Group	1184
Jessix LLC	899
JIRACOR	981
JRM Technologies	657
JVC Visual Systems	1113
Katmai	1181
KBR	1321
Kelyn3D	1394
Kentucky Trailer	521
Kinnetek	2041
KNDS Deutschland GmbH & Co. KG	1469
Kongsberg Digital AS	627
Kopin Corporation	2423
Kratos	1213

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EXHIBITORS

XR Training	441
Yorktown Systems Group, Inc.	1909
Zeiss	1869
ZEN Technologies USA, Inc.	1611

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CONTINUING EDUCATION UNITS: AN I/ITSEC OPPORTUNITY

Continuing Education Units (CEUs) were established in 1970 to create a unit of measurement to quantify continuing education and training activities. CEUs apply to technical and educational settings such as I/ITSEC. The primary focus of I/ITSEC is to highlight innovative implementation of simulation and education technologies as tools to achieve cost efficient training and increased military readiness. Therefore, CEUs are offered for all **Tutorials, Paper Sessions,** and the **Professional Development Workshops**. CEUs are being sponsored and maintained by the University of Central Florida, Division of Continuing Education.

WHY SHOULD I EARN CEUs AT I/ITSEC?

- Participation in the Tutorials, Papers and Professional Development Workshops for CEU credit reinforces your commitment to remain current in the evolving technologies relating to training and simulation.
- The CEU transcript indicates your active participation in the technical program of the conference to your employer.
- Previous attendees have indicated that CEUs have assisted them in securing approval to attend the conference.

WHAT SESSIONS ARE CEU-ELIGIBLE?

- All Tutorials, Papers, and Professional Development Workshops are CEU-eligible.

WHO MAY ATTEND THESE EVENTS?

- Tutorials and Professional Development Workshops are open to everyone. The Paper Sessions are limited to registered conference attendees.
- Does attending mean I automatically receive CEU credits? No. You have to let us know, via your registration, that you are interested in the credits. There is no charge for Paid Conference Attendees. However, if you are in an unpaid category (i.e., Exhibitor Personnel) there is a $50 charge, payable during registration. You may also register separately for the CEUs if you missed this step in your conference registration process.

HOW DO I RECEIVE CEUs AT I/ITSEC?

1. Be sure you are appropriately registered (you can confirm when you check in onsite) for CEU credits.
2. Be sure to have your conference badge scanned by a conference volunteer at each session you attend. Attendance is recorded electronically and required for CEU credit.
3. Your CEU transcript will come to you via the University of Central Florida, Division of Continuing Education. Ten contact hours equate to one CEU credit.

Contact Carol Dwyer at cdwyer@NTSA.org or 703-247-9471 for additional information.

CONTINUOUS LEARNING POINTS (CLPs)

The U.S. Department of Defense (DoD) acquisition workforce members are expected to earn Continuous Learning Points (CLPs) to stay current in leadership and functional acquisition skills that augment the minimum education, training, and experience standards established for certification purposes within their acquisition career fields. It is each acquisition member's responsibility to meet the goal of 40 CLPs each year and to meet the mandatory requirement of 80 CLPs every two years. Acquisition Professional Activities are allowed to count toward CLPs. CLPs are awarded in accordance with DoD-wide guidelines as augmented by Service-specific policies. I/ITSEC provides an excellent opportunity for the DoD acquisition workforce members to earn mandatory CLPs.

HAVE QUESTIONS? ASK BLU!
TEXT "HI" TO 866.653.1575
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MONDAY, 1 DECEMBER

TUTORIAL GRID

ROOM	0830 – 1000	1030 – 1200	1245 – 1415
BEST TUTORIALS			
330EF	General Generative AI – Applying Off-the-Shelf GenAI Tools to Wargaming 25T24	Quantifying Training Value in the Age of Immersive Simulation 25T41	Beyond the Hype: A Strategic Framework for Keeping Up with AI 25T34
TUT 1: KNOW YOUR AI - NO! YOU'RE AI!			
310AB	Navigating the AI Acceleration: Generative AI and Beyond 25T28	An Introduction to Cognitive Systems for Modeling & Simulation 25T30	Practical Use of (Emerging) Learning Technologies 25T17
TUT 2 HUMANS VS. AI			
310CD	Machine Learning: An Introduction for Humans 25T29	Building the Bridge: Evolving V&V Methods to Address AI Driven Simulation 25T49	Architecting Compound AI for Training and Augmenting Human-AI Teams 25T58
TUT 3: FUNDAMENTALS OF MODELING AND SIMULATION			
330AB	Introduction to Defense Modeling and Simulation 25T31	Live, Virtual and Constructive (LVC) Interoperability 101 25T52	A Process for Distributed LVC Integration and Execution 25T48
TUT 5: SIMULATION BUILDING BLOCKS			
320A	A Practical Guide to Using Open Tools for Well-Defined Competencies — Learning Engineering of Multi-Platform, Multi-Domain, Mission-Ready Skills Definitions 25T33	Game Engines for Military Use 101 25T42	Scenario-Centered Learning: Methods for Situational Training in a Volatile World 25T47
TUT 6: SIGNALS FROM HUMAN AND SPACE			
320B	Signal Modeling: From Spectrum Analyzers to Mixed Reality 25T65	Effective XR Space Domain Training for Guardian Proficiency 25T54	From Simulation to Reality: Combatting Social Engineering with Serious Games 25T43
TUT 7: WIRING THE LVC WORLD			
320C	DIS Tutorial 25T20	Introduction to HLA 4 for the Cloud 25T72	Achieving Secure and Scalable Interoperability: OMG DDS for MOSA-Compliant LVC Training 25T39
TUT 8: ENHANCING COMFORT IN IMMERSIVE TRAINING			
320D	Sensory Factors Underlying Cybersickness: Mechanisms and Implications 25T32	MedSim Academy 25T50	Minimizing Cybersickness in the Design, Implementation and Management of Learning Systems with Virtual Environments 25T59
TUT 9: SIMULATION DEVELOPMENT AND DEPLOYMENT			
320E	Simulation Conceptual Modeling Theory and Use Cases 25T10	Accreditation of Simulation-Based Experiments: Beyond the M&S 25T11	Simulation and the Cyber-Secure Hybrid Cloud (CSHC) 25T40
TUT 10: MEASURING YOUR SUCCESS			
320F	Simulated Systems – Real ROI with Application to Future Systems 25T69	Harnessing Physiology for Peak Human Performance in Training and Simulation 25T51	But How Do You Know They Learned That? 25T35
TUT 11: DESIGN FOR LEARNING AND ENVIRONMENTS			
320G	Exercises and Experiments: How They Can Play in Campaigns of Learning 25T18	End to End XR Training: Innovative Strategies for Seamless Content Generation and Trainee Engagement 25T56	Building 3D Environments for Simulation: Standards and Best Practice 25T63

0830 – 1000

BEST TUTORIALS
0830 – 1000 • 330EF

GENERAL GENERATIVE AI - APPLYING OFF-THE-SHELF GenAI TOOLS TO WARGAMING

25T24

Wargame planners and participants can benefit from integrating GenAI's potential for adaptability, efficiency, support to decision-making, and scalability to improve velocity, realism, and immersion of wargames. The purpose of this tutorial is to explore how Low-Cost, Commonly Available Generative AI capabilities (such as Copilot, Gemini, and ChatGPT) as well as limited access systems (such as AFRL NIPRGPT or US Army AI2C) can be used to lower the barrier of entry to wargaming, increase immersion, and improve scenario adaptability. There is a large environment of extremely capable, purposely designed (and proprietary) wargaming and simulation capabilities, AI enabled or not. However the generic tactical leader does not have the resources to contract, the hardware to deploy, or the time to find discrete capabilities. There remains a need to easily access and rapidly iterate on tactical and operational problems. Commonly available systems provide access and flexibility. Additionally, the exposure to commonly accessible tools educates the force on the effective future employment of purposely designed wargaming tools.

PRESENTERS

Robert Prescott, U.S. Army FCC
Aaron Blair Wilcox, U.S. Army War College
Sean Fraser, U.S. Army AI2C

TUT 1: KNOW YOUR AI - NO! YOU'RE AI!
0830 – 1000 • 310AB

NAVIGATING THE AI ACCELERATION: GENERATIVE AI AND BEYOND

25T28

This tutorial is based upon the Best Tutorial at I/ITSEC 2024, which focused on the why, how, and what of Generative AI. In 2025, we expand to include an examination of other emerging AI innovations, including Agentic AI, advanced robotics, quantum-empowered AI, and AI in combination with other fields, such as Generative AI-empowered synthetic biology.

Our tutorial is quite human-centric. It's not a deep dive on software development or deep mathematics, nor is it another lazy walkthrough of "prompt engineering" recipes. Instead, we've approached AI from a different lens, exploring the questions it raises about our structures and systems, ways of working, and the future of our communities.

Our tutorial includes several parts:

- We begin by reviewing the foundations of AI, so that even those who've somehow avoided discussions of Generative AI can have a sense of what these algorithms can do and roughly how they work. This includes a no-nonsense overview of the relationships between Good Old-Fashioned AI, Machine Learning, Deep Learning, and Generative AI. It will also include a brief description of how Generative AI works, including considerations of data quality and bias.
- New in 2025, we consider emerging innovations in AI, such as Agentic AI and the combination of Generative AI with other emerging and disruptive technologies, such as synthetic biology.
- Then we pause to underscore the tightly entwined relationship between Modeling, Simulation, and Training (MS&T) and AI. Both fields inherently rely upon each other, and they overlap in many ways.
- We then explore notions of change across art, culture, organizations, society, and security. How will these structures evolve as AI grows more pervasive? Examples include structural changes to work, the ways we value and navigate information, and new models of learning and assessment.
- Finally, we end with a practical discussion designed to encourage attendees to engage in strategic foresight: thinking about how Generative AI is likely to create change within their own organizations and communities and what they should be doing to influence and navigate these changes.

This is an exciting (if volatile) new world, and perhaps, the ideas explored within this tutorial will help attendees find their ways a little bit better.

PRESENTERS

Sae Schatz, Ph.D., Partnership for Peace Consortium
Julian Stodd, Sea Salt Learning, Ltd.
Geoff Stead, MyTutory

TUT 2 HUMANS VS. AI
0830 – 1000 • 310CD

MACHINE LEARNING: AN INTRODUCTION FOR HUMANS

25T29

The field of Machine Learning (ML) began in the 1950s, and it became a major, widespread research area in the 1980s. Over the past 10-20 years, innovations in computer hardware, computer languages, computer memory, and new algorithms have kicked off a rapid escalation in the capabilities of ML systems. As a result, the common refrain from stakeholders is "I want my system to learn!" But what does it really mean for a system to be able to learn? When is it a good idea and when is it not? What kinds of things are computers good at learning, and where are there still weaknesses? How does this all work, really?

This tutorial abstracts away from the mathematical and computational details to offer a high-level understanding of "how ML works" as well as its capabilities, strengths, and weaknesses. The tutorial presents the broad categories of learning that current ML approaches address, together with examples that provide an intuitive feel for how each approach is able to work, without delving into the specifics of the complicated math that provides much of the "magic." The tutorial also investigates the "art" behind the science, introducing the work an ML practitioner needs to add to apply these powerful algorithms successfully to new problems.

The tutorial finishes by summarizing some of the types of human learning that are still on the ML frontier, waiting to be understood and conquered, as well as an overview of methods to decide which parts of your problem might be best suited to non-learning algorithms.

PRESENTERS

Randolph Jones, Ph.D., Soar Technology, LLC

TUT 3: FUNDAMENTALS OF MODELING AND SIMULATION
0830 – 1000 • 330AB

INTRODUCTION TO DEFENSE MODELING AND SIMULATION

25T31

This tutorial will describe the fundamental technologies, terms and concepts associated with Defense Modeling and Simulation (M&S) as used in the U.S. Department of Defense (DoD) and in the larger Defense community. The tutorial will cover key M&S terms and concepts that describe M&S technology, development, and application. It will include: (a) M&S terminology and concepts; (b) M&S technology, architectures, and interoperability protocols; and (c) The processes for developing valid representations of: DoD warfighting capabilities, threat capabilities, complex systems, and mission environments. The attendee will become familiar with how M&S is used in the DoD for operational purposes - especially training and other areas of direct warfighter support. The tutorial will highlight the role of Verification, Validation and Accreditation (VV&A) in ensuring credible models and simulations meet the needs of their users, the use of M&S standards, and the integration of M&S with DoD Mission Engineering and Digital Engineering in the development and acquisition of DoD warfighting capabilities. The tutorial will describe the characteristics and associated challenges of M&S application within DoD functional areas including: Training, Analysis, Acquisition, Test and Evaluation, Planning, Medical, Mission Engineering, Autonomy, Artificial Intelligence, DoD Research and Development/Employment, and Intelligence. The tutorial will also identify accessible M&S information resources, U.S. Government/ DoD, International, Academia, and Industry.

PRESENTERS

James Coolahan, Ph.D., Coolahan Associates, LLC
John Daly, JJD Associates

TUT 5: SIMULATION BUILDING BLOCKS
0830 – 1000 • 320A

A PRACTICAL GUIDE TO USING OPEN TOOLS FOR WELL-DEFINED COMPETENCIES — LEARNING ENGINEERING OF MULTI-PLATFORM, MULTI-DOMAIN, MISSION-READY SKILLS DEFINITIONS

25T33

Crafting well-defined competency definitions is a complex and labor-intensive process that can be made easier with AI enabled and standards-based automation tools. Best practices typically require cognitive and physical task analysis, which can be tedious and time-consuming and require specialized expertise. Despite these efforts, the resulting definitions are often imprecise, failing to capture the full scope of the competencies as applied in different contexts or lacking the granularity needed for effective assessment. Another challenge is ensuring that these definitions are structured in formats that are interoperable across different platforms and learning modalities, which is essential for scalability and consistency in digital learning environments and for multi-domain training scenarios.

We will explain what it means for a competency to be well-defined for the purposes intended, drawing from the IEEE standard recommended practice for well-defined competencies (IEEE 1484.20.2) and other sources. We will explain the role of the standard for Sharable Competency Definitions (IEEE 1484.20.3), an anchor standard in the Total Learning Architecture.

After this, we will introduce some free and open tools for developing well-defined competencies frameworks in formats that can be used across-platforms and across multi-domain training contexts. These tools can automate a learning engineering approach to development and iterative refinement of well-defined competency definitions using human-in-the-loop generative AI, international standards, and learning analytics for data-verified specificity.

This tutorial is a primer suitable for anyone involved—directly or indirectly—in training, education, performance improvement, or talent management. This tutorial will give attendees important tools to optimize their work.

PRESENTER

Jim Goodell, IEEE Learning Technology Standards Committee

TUT 6: SIGNALS FROM HUMAN AND SPACE
0830 – 1000 • 320B

SIGNAL MODELING: FROM SPECTRUM ANALYZERS TO MIXED REALITY

25T65

We are surrounded by invisible radio frequency signals used for communications, navigation, and even health. Traditionally, we see these signals through spectrum analyzers. However, the capabilities of existing analysis tools are being outpaced by the rapid modernization of wireless networks and topologies like 5G, IoT, Bluetooth, LoRa, Starlink, etc. RF is inherently multidimensional, but conventional analyzers display signals in 2D slices, limiting real-world applicability to highly technical users. Emerging technology that combines Mixed Reality displays and AI/ML algorithms is now capable of spatializing radio emissions at their natural 3D location for easier understanding and communication.

This tutorial will convey the evolution of RF visualization tools from flat interfaces to immersive ones that can be used to discover and map RF signals and networks. The audience will gain a broad understanding of the emergence of holographic interfaces and how they are being evaluated for operational data displays. Building upon proven user experience principles, we will walk participants through challenges with the design and development process, theory behind decisions, and usability issues in actual deployments. The audience will learn about current experimentation and future innovations in this emerging field.

PRESENTER

Jad Meouchy, BadVR
Suzanne Borders, BadVR

TUT 7: WIRING THE LVC WORLD
0830 – 1000 • 320C

DIS TUTORIAL

25T20

The DIS Tutorial will provide a history of the Distributed Interactive Simulation (DIS) from the 1990's to the current DIS V7 and future DIS V8. Emphasis will be on the DIS V7 and V8 standards. Participants will learn how the DIS standard is managed and learn how the Institute of Electrical and Electronics (IEEE) and Simulation Interoperability Standards Organization (SISO) work together to create the DIS standard. Participants will learn about the capabilities of DIS, what problems it solves and how it supports Live Virtual Constructive (LVC) integration. Participants will be able to explain the key DIS definitions, concepts and technical details of the DIS protocol. Emphasis will be given to the existing Dead Reckoning algorithms and the new Combined Circular Parabolic (CPC) algorithm.

The Tutorial will provide an overview of all of the existing and future DIS Protocol Data Units (PDUs) including their purpose and usage. This review should provide participants with an understanding of what DIS can be used to model and how users can add new capabilities in DIS V8.

The differences between DIS, HLA and TENA will be briefly discussed. DIS V8 changes, challenges and opportunities for integration with or into existing DIS V7 systems will be reviewed. The current status of the DIS V8 standard will be provided.

PRESENTER

Lance Call, AFRL/CAE

TUT 8: ENHANCING COMFORT IN IMMERSIVE TRAINING
0830 – 1000 • 320D

SENSORY FACTORS UNDERLYING CYBERSICKNESS: MECHANISMS AND IMPLICATIONS

25T32

Extended Reality based training devices have introduced a modality into the military and aviation training ecosystem that is known to induce motion-sickness like symptoms at a higher rate than traditional simulators or motion itself. XR specific symptoms are commonly known as Cybersickness.

The dominant hypothesis as to the cause of such sickness symptoms is Multi-Sensory Cue Expectation Conflict Theory, wherein the experience of unexpected disparities within and among senses sometimes induces negative experiences which manifest both subjectively and objectively.

Conventional cybersickness analyses largely take an outside-in approach, i.e. they analyze use cases and symptoms or reductively analyze hypothesized causal elements. By contrast, this work takes an inside-out perspective, wherein the natural operation of senses which interface to XR devices is examined and is then compared to the demands placed upon them by these devices.

XR devices are shown to impose a set of novel sensory demands upon their users. The analysis is based on and sourced from extensive published research. It identifies 5 interacting clusters of sensory mismatch and/or limitation inherent to today's devices. Combined, these 5 clusters constitute a novel holistic synthesis of mechanisms underlying cybersickness. Because the understanding developed by this analysis and synthesis identifies mechanisms, it provides the basis for a substantial, well informed research agenda that goes well beyond the phenomena of sickness.

An overview of the research and application agenda enabled by this work is provided. It includes: 1) direct implications of sickness, 2) assessment of the significance of sensory mismatches when applied to training task use cases, 3) fundamental research questions, and 4) standards that are needed ensure safe and effective use of the technology.

Lastly, a framework for situating the use of XR based devices is presented to help them become a true enhancement to the total training system.

PRESENTER

Douglas Gill, FlightSafety International

TUT 9: SIMULATION DEVELOPMENT AND DEPLOYMENT
0830 – 1000 • 320E

SIMULATION CONCEPTUAL MODELING THEORY AND USE CASES

25T10

Simulation conceptual modeling is a critical step in simulation development frequently overlooked in the rush to demonstrate program progress. A simulation conceptual model is an abstraction from either the existing or a notional physical world that serves as a frame of reference for further simulation development by documenting simulation-independent views of important entities and their key actions and interactions. A simulation conceptual model describes what the simulation will represent, the assumptions limiting those representations, and other capabilities needed to satisfy the stakeholder's requirements. It bridges between these requirements and simulation design. It can bound the systems engineering problem and provide valuable artifacts for simulation validation, verification, and accreditation. The emergence of Model Based System Engineering (MBSE) has accentuated the need for well-formed simulation conceptual models.

This tutorial will present the theory and application of simulation conceptual modeling as documented during the research done by the NATO MSG 058. In addition, Use Cases that have been drawn from previous conference presentations will be presented to illustrate how conceptual modeling has been performed. Additional work is necessary to mature the state-of-the-art of simulation conceptual modeling before a recommended practices guide could be standardized. This tutorial aims to advance the best practices in simulation conceptual modeling and foster industry-wide adoption of standardized methodologies.

PRESENTER

Jack Borah, Borah Enterprises, LLC

TUT 10: MEASURING YOUR SUCCESS
0830 – 1000 • 320F

SIMULATED SYSTEMS – REAL ROI WITH APPLICATION TO FUTURE SYSTEMS

25T69

When requirements increase faster than available resources, decisions on how to allocate the resources among various programs and projects are required. Project and program managers must show why their systems are worthy of continuing or launching over another. While many factors influence these important decisions, return on investment (ROI) should play a key role. ROI has been an essential factor for many years, however, lately we have seen many instances where the term is used incorrectly. For example, "The use of System X saved 23% of classroom hours," is not ROI. Furthermore, traditional ROI requires a return or revenue stream to calculate the benefit of the investment. However, in military applications there is most likely not a revenue stream. How does one then calculate the return?

This tutorial builds on a study performed for the Modeling and Simulation Coordination Office in 2009 and published in the Acquisition Review Journal in 2011, completed by a team led by Bill Waite. In the tutorial, attendees will briefly be presented the definition of ROI, some examples of ROI and some examples of the incorrect use of ROI. Then some of the unique challenges to the DoD, and particularly the M&S environment, will be presented with the proposed solutions from the study discussed. In that discussion, how to construct solid usable metrics for use in the ROI calculation for M&S will be presented with real-world examples given. Additionally, an examination

of how ROI can appear slightly different depending upon your point of view (management level) and what things are considered in the calculation. We will then consider a special use case for estimating ROI for new technology and introduce Expected Value ROI. Finally, examples that put all the ideas together and show ROI in some different scenarios will be presented and discussed. The end-goal is that each attendee will come away with an understanding of ROI and how it can be misapplied; how to calculate it and the unique challenges that arise when there is no revenue stream; how to overcome those challenges and develop measurable metrics for use in the ROI calculation; and finally, how all of the principles come together in some examples and how the appearance of ROI may differ depending upon your management level. Using these methods, attendees should walk away with being better able to defend their programs and projects against the ever-present funding axe.

PRESENTER

Tim Cooley, Ph.D., DynamX Consulting
Ivar Oswalt, Ph.D., CMSP, The MIL Corporation

TUT 11: DESIGN FOR LEARNING AND ENVIRONMENTS
0830 – 1000 • 320G

EXERCISES AND EXPERIMENTS: HOW THEY CAN PLAY IN CAMPAIGNS OF LEARNING

25T18

Individuals and organizations across the Department of Defense use the terms exercise, experiment, and experimentation in instructions and planning as the services seek to modernize and build capability for the future while neglecting to be precise about their meaning. The purpose of this tutorial is to clarify the fact that exercises and experiments are different because they support different goals; however, one can use both exercises and experiments effectively as part of the toolkit of campaigns of learning or experimentation campaigns in our quest for deterrence and operational dominance. While both exercises and experiments are tools, they both use a variety of tools to accomplish their diverse ends. This tutorial explores the tools they use: simulations – live, virtual and constructive, wargames – both computer-based gaming and traditional command post games, path games and other types of strategy games, together with their capabilities and deficits. We explore the different types of experiments and how they are currently in use in DoD. Finally, we bring these together in support of the current directives and instructions for designing our path to building tomorrow's force and the people who will employ the new capabilities in deterrence of an adversary and defense of our nation. We note that we combat, not only a physical adversary, but the tyranny of time and how the effects of that tyranny drive us away from the most effective use of our campaign of learning. In the light of that tyranny, we look at the current gaps in our processes (as well as in our tools) and provide suggestion for developing a more agile and cost-effective way of employing our experimentation toolkit.

PRESENTER

S.K. "Sue" Numrich, Ph.D., CMSP, IDA

1030 – 1200

BEST TUTORIALS
1030 – 1200 • 330EF

QUANTIFYING TRAINING VALUE IN THE AGE OF IMMERSIVE SIMULATION

25T41

Immersive simulation and training devices have flooded the market touting superior training value. However, the science for precisely quantifying training gains and overall value for these next generation training devices is largely inadequate, thereby leaving claims of training value unchecked. The result is an increasing difficulty for training stakeholders to engage in science-driven training media selection and integration into a curriculum. Compounding this issue are training assessment methods, processes, and analyses that have remained stagnant and are in dire need of an update to assess the total impact of immersive devices on the training landscape.

The purpose of this tutorial is to provide training stakeholders, whether they be scientists, practitioners, or decision-makers, with a review of the current state-of-the-art for determining the media composition of simulation-based training, its limitations, and the introduction of a data-driven approach to precisely quantify training value. As a result, stakeholders will obtain a broader capacity to effectively assess immersive devices within a training solution.

The tutorial begins by providing contextual and historical background on determining training needs. We begin by outlining pros and cons of different instructional methods and modes of instruction, including a description of the basic components of a traditional ground-based training system designed to expedite skill acquisition across the novice-to-expert continuum. We then proceed to describe how immersive simulation is changing the training landscape, disrupting traditional simulation-based training, and to what extent it is warranted.

Following this historical grounding and contextualization of immersive devices, we provide evidence for augmenting training needs analyses in order to competently and objectively pair immersive devices to learning objectives. Specifically, we address this gap by describing a combinatory approach between Instructional System Design (ISD) and Human Factors (HF) methods to gauge the impact of immersive training media. Next, we introduce the topic of media cost versus capability tradeoff, including novel training media factors to consider within an overall training ecosystem. Practical visualizations are provided to illustrate the importance of this tradeoff.

Finally, the tutorial presents a data-driven approach at quantifying training value. Specifically, we review and visualize through an applied use case the main factors impacting the computation of a normalized training value index, including media sensory gains and proportion of training coverage across a notional media solution set. Our conclusion summarizes the tutorial's main points under the lens of driving training value while providing useful resources to stakeholders in support of that endeavor.

PRESENTERS

Sandro Scielzo, Ph.D., CAE USA
Eric Ultes, CAE

TUT 1: KNOW YOUR AI - NO! YOU'RE AI!
1030 – 1200 • 310AB

AN INTRODUCTION TO COGNITIVE SYSTEMS FOR MODELING & SIMULATION

25T30

There are increasing requirements for automated reasoning abilities across the broad spectrum of modeling and simulation, as well as in battlefield information and control systems. Additionally, the cognitive capabilities that have been developed and tested in simulation are migrating to real-world systems. Cognitive systems represent a maturing computational approach to intelligence that can provide robust, scalable, and adaptive decision making. This tutorial provides an introduction to cognitive systems, concentrating on production system computation and high-level design of human-like reasoning systems. We draw examples and comparisons from existing cognitive systems, focusing on the tradeoffs between cognitive and non-cognitive modeling approaches. The tutorial content does not require any specialized knowledge, but some experience with software engineering or behavior modeling can be helpful. Attendees will learn to recognize problems that suggest cognitively based solutions, and they will be better able to assess risks, costs, and benefits of different approaches. This tutorial is targeted toward developers who might be interested in cognitive approaches to software engineering, as well as customers who have problems that may be amenable to a cognitive approach.

PRESENTERS

Randolph Jones, Ph.D., Soar Technology, LLC
Dylan Schmorrow, Soar Technology, LLC

TUT 2: HUMANS VS. AI
1030 – 1200 • 310CD

BUILDING THE BRIDGE: EVOLVING V&V METHODS TO ADDRESS AI DRIVEN SIMULATION

25T49

The processes of Verification and Validation, are foundational elements that underlie assessments of M&S credibility. Verification and Validation (V&V) activities serve to build an evidentiary chain of information upon which M&S Users and Accreditation Agents can assess the viability of an M&S for a particular application. Information derived from the V&V processes is used to shape the understanding of the conditions under which an M&S could and should be used.

While advancements in verification and validation methods for both stand alone and distributed simulations have been realized; new challenges exist as the focus shifts to AI driven simulation. This tutorial will explore these challenges and discuss both V&V solutions and gaps. Particular focus will be given to V&V issues associated with AI driven training simulations.

Topics to be covered by this tutorial will include:

- Defining basic verification and validation concepts
- Identifying verification test strategies (e.g., leveraging information, supplemental test activities) and adapting them to various development paradigms
- Building and applying validation referent data (what the simulation results will be compared to)
- Defining the simulation measures and metrics to be compared
- Selecting validation methods to apply when performing the results/referent comparison
- Defining V&V challenges associated with AI driven simulation
- Identifying applicable V&V methods and gaps for AI driven simulation
- Defining the unique V&V challenges associated with AI driven training simulations

The tutorial will enhance the learning experience by incorporating lessons learned derived from the many V&V applications with which the authors have been involved.

PRESENTERS

Simone Youngblood, Johns Hopkins University APL
Katherine Ruben, Johns Hopkins University APL

TUT 3: FUNDAMENTALS OF MODELING AND SIMULATION
1030 – 1200 • 330AB

LIVE, VIRTUAL AND CONSTRUCTIVE (LVC) INTEROPERABILITY 101

25T52

The purpose of this tutorial is to provide managers the necessary insight needed to support intelligent decision making when employing LVC to solve their needs. The tutorial will discuss the various solutions and domains of the technology and how it can potentially support their LVC needs. The tutorial provides a relevant use case as the mechanism to explain the concepts and the solutions required to achieve success. The tutorial will not be an in-depth technology review of LVC interoperability yet will provide sufficient management-level insight into interoperability solutions and standards like Distributed Interactive Simulation (DIS), High Level Architecture (HLA), and the Test and Training Enabling Architecture (TENA) product line.

PRESENTERS

Kurt Lessmann, Trideum Corporation
Damon Curry, Pitch Technologies US

TUT 5: SIMULATION BUILDING BLOCKS
1030 – 1200 • 320A

GAME ENGINES FOR MILITARY USE 101

25T42

As the technology behind gaming continues to evolve, game engines are increasingly being recognized as valuable tools for modeling and simulation. Game engines are often utilized as low-cost support for immersive display technologies such as virtual reality head mounted displays, options for low to no-code development processes, and open ecosystems. These engines provide a wide range of tools that can help reduce the time required to deploy new training applications and simulations. The gaming industry has significantly influenced the development of features beneficial to military training, resulting in improvements that enhance our training and learning methods. By utilizing the integrated physics engines, networking capabilities, support of extended reality (XR, encompassing augmented, mixed, and virtual reality, AR, MR, VR), and accessible community assets, we can create simulations that facilitate training and research in dynamic and realistic scenarios.

This tutorial provides an introduction to game engines and their application in LVC training as well as game-based or gamified training. The critical considerations for using gaming engines are covered. Three example use cases are showcased: distributed training, which demonstrates the utilization of networking capabilities and integrating them with legacy systems; part-task trainers, which focuses on the creation of virtual environments designed for

training; and general research, which emphasizes the importance of gathering metrics that may be challenging to obtain in other settings. Throughout each use case, the tutorial will discuss the benefits, drawbacks, and best practices for implementation. It will conclude with a summary of the overall benefits, limitations, and practical applications of game engines, as well as best practices that extend beyond the specific use cases presented.

This tutorial is designed for a broad audience to provide a foundational understanding of the advantages of game engines, appropriate scenarios for their use, and best practices for developing game engine-based solutions for military purposes.

PRESENTERS

Quintin Oliver, AFRL
Stephanie Fussell, Aptima, Inc
Summer Rebensky, Aptima, Inc.
Stephen McGee, AFRL

TUT 6: SIGNALS FROM HUMAN AND SPACE
1030 – 1200 • 320B

EFFECTIVE XR SPACE DOMAIN TRAINING FOR GUARDIAN PROFICIENCY

25T54

Space has captured the imagination of billions of people around the world and has become essential to our daily quality of life. As commercial companies demonstrate more and more success with spaceflight and space exploration, there has been a recent resurgence in humanity's interest in space.

Training and educating people to become successful space professionals is extraordinarily challenging. Preparing students to conduct safe and effective space operations demands that they master complex (and often counterintuitive) orbital dynamics, understand physical space vehicles they are operating and maneuvering, and learn how to integrate uncertain or incomplete data for decision-making while avoiding hazards such as space weather effects and conjunctions. High-fidelity simulators incorporating augmented reality (AR) and virtual reality (VR) to improve operator and analyst proficiency will be pervasive in the future, but a mismatch currently exists between the pace at which the global space domain is evolving and the tools, technologies, and course materials available to educators in the classroom. For example, many existing education tools are antiquated, requiring instructors to rely on analog aids such as "beach balls and hula hoops" and celestial sphere models to convey these complex 3D relationships. Instructors attempt to familiarize students with dynamic space operations using digital 2D artifacts such as slide decks, and complex and expensive computer modeling programs when their budgets allow. Trying to characterize complex 3D on-orbit hazards using such techniques is cumbersome, fails to support training concepts beyond basic orbitology, and severely limits educational opportunities. And current 2D desktop displays are particularly taxing to new learners as they begin their education, and such displays limit training effectiveness and extend the time needed to master the material.

During this tutorial, we will demonstrate new techniques that use AR/VR headsets to experience and learn about the fundamentals of space domain awareness, orbital regimes, satellite constellations, orbital mechanics, and classical orbital elements in an immersive 3D environment. The tutorial will demonstrate the realized benefits from using AR/VR over current training methods such as reducing perceptual and cognitive burden compared to 2D desktop screen displays that represent orbital physics which requires significant mental spatial transformations to perceive the 3D context. Participants will leave with a better understanding of how to teach space domain awareness in an engaging, interactive manner that will give their students an intuitive understanding of space fundamentals.

PRESENTERS

Daniel Stouch, Charles River Analytics, Inc.
Susan Latiff, Charles River Analytics, Inc.
Rob Hyland, Charles River Analytics, Inc.
Dan Duggan, Charles River Analytics, Inc.
Patrick Hosman, Charles River Analytics, Inc.

TUT 7: WIRING THE LVC WORLD
1030 – 1200 • 320C

INTRODUCTION TO HLA 4 FOR THE CLOUD

25T72

The High-Level Architecture (HLA) is the leading international standard for simulation interoperability. Originally developed for the defence community, it is now adopted across various domains. This tutorial explores the core requirements for interoperability, flexibility, composability, and reuse—and demonstrates how HLA effectively meets these needs. The new version, HLA 4 is also introduced.

We will examine the use of HLA in Live, Virtual, and Constructive (LVC) training, Command and Control (C2) training, wargaming and analysis, and space simulation. The session will also introduce key standardized Federation Object Models (FOMs), including the RPR FOM for platform training, Link 11 and Link 16 FOMs, NATO FOM, Cyber DEM, and Space FOM.

The new version, HLA 4 introduces several new features for cloud computing, enabling scalable and on-demand simulation and training. By integrating containerization with HLA 4's advanced capabilities, organizations can develop more flexible, efficient, and scalable simulation environments while streamlining development and deployment. This tutorial will cover HLA 4's authentication mechanisms, Federate Protocol, and monitoring tools, highlighting their role in enhancing cloud-based simulations.

We will also address key technical considerations for training system developers, including gateways, toolchains, performance optimization, and cross-domain security implementation.

This tutorial is designed for all audiences, though a basic understanding of distributed computing concepts is recommended.

PRESENTERS

Bjorn Moller, Pitch Technologies
Fredrik Antelius, Pitch Technologies

TUT 8: ENHANCING COMFORT IN IMMERSIVE TRAINING
1030 – 1200 • 320D

MEDSIM ACADEMY

25T50

Medical simulation-based training has a long history of ingenuity and innovation. This tutorial will provide a brief history of medical simulation development and deployment, including foundational technologies and educational principles. The history will highlight progression within civilian and military simulation, define common terms, and identify key resources for the audience. After the historical review, the tutorial will cover the current state of medical simulation across the services, from the strictly medical training space to collective warfighter exercises. Emphasis will be placed

on what is being used for training, what is currently in research and development and what is still needed (technology and policy). Live demonstration of medical simulation technologies and video presentations showing simulation-based training will be integrated throughout this educational and engaging event.

This Tutorial is designed for a broad audience. It will be informative for those in the MedSim space for many years, as well as those new to the area. The information will be relevant to the broader Warfighter Simulation community as training exercises strive to include medical injuries and consequences.

PRESENTERS

Matthew Hackett, Ph.D., U.S. Army DEVCOM SC STTC
M. Beth Pettitt, Ph.D., U.S. Army DEVCOM SC STTC
Jack Norfleet, Ph.D., U.S. Army DEVCOM SC STTC

TUT 9: SIMULATION DEVELOPMENT AND DEPLOYMENT
1030 – 1200 • 320E

ACCREDITATION OF SIMULATION-BASED EXPERIMENTS: BEYOND THE M&S

25T11

The Department of the Army has no individual or organization that accredits a simulation-based experiment (SIMEXp). Army Regulations require that the modeling and simulation (M&S) be accredited – but not any of the other components required to execute a SIMEXp. Each of the Army's Centers of Excellence (maneuver, fires, air maneuver, maneuver support, sustainment and heath readiness) conduct multiple SIMEXp annually- the Maneuver Battle Lab alone averages eight to ten per year, but no outside agency or regulation accredits the events. The purpose of this tutorial is to present a framework for SIMEXp accreditation and enable attendees to understand all of the areas which must be accredited for the overall accreditation of a SIMEXp. Accreditation of the M&S will be discussed, as it serves as the foundation for an overall accreditation, but there are other equally important components requiring separate accreditations. After participating in the tutorial, attendees will be able to identify the components of tactical and operational scenarios which must be validated by current warfighters – and that the person who accredits those aspects must have credible knowledge of the current state of doctrine, military organizations, and operational concepts (friendly and enemy) to be studied.

Nothing in the Army's regulatory accreditation of the M&S addresses the physical and computational environment on which the SIMEXp is conducted. For example, if the company commander would only know the happenings of a subordinate platoon's area of operations by what is reported on by voice or texted on a mission command system, then the SIMEXp should be physically structured to reflect those same conditions. Not only must the M&S be accredited, but also the hardware and network on which they are running to ensure processors are robust enough to execute as required, the network transmission speeds are sufficient, and no packets are being lost during execution.

Finally, attendees will learn how to design and assess the analytical methods used during a SIMEXp to ensure accreditation of the analytical portion of the SIMEXp. The analysis plan, data collection and reduction methodology, and computational methods for analyzing the data must all be documented and accredited in a peer-reviewed final report in order for the overall SIMEXp to be accredited. This tutorial is intended for those interested in gaining a better understanding of proper SIMEXp design and why more than just the M&S must be accredited.

PRESENTER

Thomas Yanoschik, SAIC

TUT 10: MEASURING YOUR SUCCESS
1030 – 1200 • 320F

HARNESSING PHYSIOLOGY FOR PEAK HUMAN PERFORMANCE IN TRAINING AND SIMULATION

25T51

Hyper-realistic environments and on-demand training tools have experienced significant advancements in training and simulation use cases. Incorporating physiological monitoring into simulation and training environments provides crucial information to monitor and optimize performance, ensure individual competencies, provide adaptive support, and enable bi-directional communication between human users and AI collaborators. Training and simulation communities can remain at the forefront of innovation and assured deterrence by synergizing common needs and removing barriers to integrating human performance monitoring. The key to making these capabilities available to the community is streamlining an approach that is adaptive to a variety of use cases. Such an approach will support more advanced training environments, decision-making, and digital engineering to ensure readiness.

Attendees will be equipped with tools to understand and implement physiological monitoring across a wide range of use cases. The session will provide engaging overviews of the current state-of-the-art in physiological monitoring and human performance, including use cases for training and simulation, current challenges, and example implementations. It will also discuss the potential of leveraging AI for data processing and analytics, covering advantages, current limitations, and ethical considerations. Attendees will learn best practices and a recommended approach to leverage physiological sensing in various environments. The approach will delve into understanding underlying physiological changes, selecting appropriate sensors, benchmarking to confirm accuracy, analyzing data, storing results, and translating data into action.

PRESENTERS

Audrey Zlatkin, Ph.D., Design Interactive, LLC
Charles Rowan, Ph.D., NPS MOVES Institute
Victoria Olko, Design Interactive, LLC

TUT 11: DESIGN FOR LEARNING AND ENVIRONMENTS
1030 – 1200 • 320G

END TO END XR TRAINING: INNOVATIVE STRATEGIES FOR SEAMLESS CONTENT GENERATION AND TRAINEE ENGAGEMENT

25T56

Training is frequently delivered in a classroom or remotely in a uniform format, offering limited opportunities to practice cognitive and hands-on skills in real-world contexts. To optimize training, it is crucial to practice skills contextually and receive feedback to build muscle memory, embody actions, and develop critical thinking. By integrating augmented, virtual, and mixed reality technologies, eXtended Reality (XR) can create a contextualized virtual environment with augmented overlays on real-world objects, offering a fully immersive and highly engaging training experience that ensures operational dominance. When XR training applications are coupled with automated

technical documentation ingestion, generative AI knowledge elicitation and no-code authoring, content can be generated in a cost-effective, strategic, and seamless manner, formulating an end-to-end solution with significant proficiency gains and a high Return on Investment (ROI).

Content generated for XR consumption includes curriculum constructs, lesson format, formative and summative assessments, 3D objects and animations, virtual environments, auditory and visual cues, and technical documentation. However, generating this content for XR applications is often the bottleneck to deploy impactful and feasible solutions for end users. Moreover, it is crucial when developing XR training solutions to create content that fully leverages the unique, context-aware design elements and embodied interactions afforded by XR. Unlike traditional interfaces, XR lacks a widely accepted mental model for user interactions especially when spatial movement is required. To maximize usability, it is critical to build systems with interaction capabilities that can be used seamlessly for content generation by instructors and subject matter experts.

This Emerging and Innovative Concepts tutorial will dive into the key elements for developing an end-to-end XR training application following the upload, capture, add, spatialize, preview, publish, complete, report and refresh no code user flow. This user flow consists of a web portal and a mobile application, working together to deliver the full value of XR training by empowering end users to create and consume immersive lessons and scenarios. The tutorial will discuss a user-centered approach, incorporating past research, rapid prototyping, best-in-class analysis, ROI, and end user feedback for each element in the user flow. By the end of this tutorial, attendees will be able to implement effective techniques for developing and implementing an end to end XR training application based on experience and lessons learned from military ground operations, maintenance, and medical domains. .

PRESENTERS

JoAnn Archer, Design Interactive, LLC
Rebecca Kwasinski, Design Interactive, LLC
Glenn Dennison, DAF, AETC, 338 TRS/TRR
Betsy Laxton, Design Interactive, LLC

1245 – 1415

BEST TUTORIALS
1245 – 1415 • 330EF

BEYOND THE HYPE: A STRATEGIC FRAMEWORK FOR KEEPING UP WITH AI

25T34

Progress in Artificial Intelligence is advancing at an extraordinary and accelerating pace, with breakthroughs emerging daily across fundamental research, implemented models, and real-world applications. This tutorial offers decision-makers a structured approach to monitor AI trends without deep technical expertise, providing practical strategies to extract meaningful insights from the flood of information and hype.

The session begins with a framework for critically assessing information sources using subjective metrics, such as timeliness of posts after new releases, comprehensiveness of coverage, and source credibility, enabling attendees to filter noise and focus on content that matters.

We then examine fundamental research, outlining methods to locate high-quality papers, survey articles, expert multimedia education content, and authoritative blogs. By understanding emerging models, novel features, and benchmark results, participants can quickly identify significant breakthroughs driving the field forward.

The tutorial shifts to following the latest AI applications reshaping industries. Attendees will learn techniques for monitoring tech conferences, evaluating product reviews, and leveraging comprehensive reports to distinguish genuine innovation from hype, gaining clarity on the practical implications of AI advancements.

Next, we offer actionable guidance on utilizing cutting-edge AI capabilities, including free source code, tutorials for integrating large language models and image generation systems, and strategies for applying these technologies within specific fields, bridging the gap between innovation and implementation.

Finally, the tutorial covers related AI technologies in robotics, medicine, and other domains significantly impacted by AI, highlighting its broader influence across diverse sectors.

By the end of this tutorial, participants will have a clear roadmap to efficiently monitor AI developments, rigorously evaluate sources, and leverage new capabilities in their professional roles.

PRESENTERS

Charles Cohen, Cybernet Systems Corporation
Steve Rowe, Cybernet Systems Corporation

TUT 1: KNOW YOUR AI - NO! YOU'RE AI!
1245 – 1415 • 310AB

PRACTICAL USE OF (EMERGING) LEARNING TECHNOLOGIES

25T17

The landscape of training and education is undergoing a revolutionary shift fueled by the transformative power of Artificial Intelligence (AI). This tutorial provides a comprehensive journey into AI fundamentals and their expansive applications, ranging from natural language processing to computer vision, with a spotlight on the dynamic realm of Generative AI.

At the heart of our immersive exploration is Generative AI, a specialized discipline poised to revolutionize education and training by crafting innovative content across text, images, audio, and video. Delving into the possibilities, we will navigate through renowned generative AI platforms and tools, featuring chatbots such as: OpenAI, Bard, Mistral, Grook, Copilot and more. The tutorial transcends theoretical discussions, offering participants tangible insights into prompt engineering—an indispensable technique for tailoring prompts to effectively elicit desired outputs from generative AI models.

Through hands-on activities and interactive sessions guided by expert facilitators Mr. Gigi Roman from NATO School Oberammergau, Mr. Ryan Williams from NATO Allied Command Transformation, and Dr. Biljana Presnall from Jefferson Institute, participants will actively engage with generative AI technologies, gaining practical experience in leveraging these tools for training and educational enhancement. The tutorial focus extends beyond theoretical frameworks, fostering a deep understanding of the real-world applications of Generative AI in educational contexts.

A highlight of the tutorial is the role of AI agents — autonomous systems capable of executing complex tasks and continuously learning from interactions, which are increasingly being deployed in educational settings as virtual tutors, intelligent assistants and adaptive learning companions. These agents personalize learning experiences by dynamically responding to student needs, automating administrative tasks, and facilitating interac-

tive and immersive educational environments. Through hands-on exercises, participants will explore how AI agents can be integrated into learning environments to enhance engagement, efficiency, and knowledge retention.

By the tutorial's conclusion, participants will emerge with a heightened comprehension of AI's potential and the nuanced challenges it introduces to the educational landscape. Empowered with this knowledge, attendees will be equipped to integrate Generative AI tools and techniques seamlessly into their teaching and learning environments. The tutorial aims to inspire innovation, cultivating a dynamic and forward-thinking educational experience that harnesses the transformative capabilities of Generative AI.

PRESENTERS

Gigi Roman, NATO School Oberammergau
Biljana Presnall, Jefferson Institute
Ryan Williams, NATO

TUT 2 HUMANS VS. AI
1245 – 1415 • 310CD

ARCHITECTING COMPOUND AI FOR TRAINING AND AUGMENTING HUMAN-AI TEAMS

25T58

Generative AI is advancing rapidly, transforming human-AI (HAI) teams across training and operational environments. Yet, generative AI performance alone does not guarantee mission success, team performance, or effective HAI collaboration. These outcomes depend on effective team design using knowledge from team cognition theories, deliberate system architecture leveraging the strengths of agentic and compound AI systems, and interaction methods that support both human and AI team participants' understanding of the shared context. By combining principles from team science and innovative compound AI architecture design, we can enhance the impact of AI technologies on HAI teams, making them more adaptive, resilient, and mission-effective. This tutorial, led by an organizational scientist specializing in shared cognition and HAI teaming applications and a Chief AI architect focused on operationalizing generative AI for mission-critical systems, will lean on evidence from recent research and practical experience to offer all audience members, from AI developers to training professionals and leaders, an accessible and comprehensive framework for designing, implementing, and evaluating HAI teams for military training and beyond.

The first half will explore foundational principles of team science and their application to HAI collaboration and multi-agent AI systems. Participants will be introduced to key team cognition frameworks, including Transactive Memory Systems, Shared Mental Models, and Interactive Team Cognition, and how these concepts translate to agentic AI teams. The session will also cover state-of-the-art assessment and benchmarking methods for evaluating agentic AI and HAI team performance, highlighting challenges in trust calibration, adaptability, and decision-making in high-stakes contexts.

The second half will focus on compound AI architectures and system design that facilitate effective HAI and agentic AI teaming. We will review modern techniques such as Retrieval Augmented Generation, tool calling, and agentic architectures with advanced memory representations, summarizing how they support HAI collaboration by enabling AI systems to learn team context and priorities through naturalistic interactions. Participants will gain insights into data requirements, processing, multi-agent formulation, HAI role definition, and system structures needed to support successful HAI interactions in mission critical scenarios.

Throughout the tutorial, participants will gain a deeper understanding of how team science can inform HAI system design and how compound AI architectures that consist of large language models (LLMs), multimodal foundation models (MFMs), agents, and tools, can be orchestrated to support effective teaming. This interactive session will include case studies, discussion prompts, and Q&A opportunities, ensuring participants leave with actionable, cutting-edge insights for real-world operational settings.

PRESENTERS

Zachary Klinefelter, Aptima, Inc.
Gabriel Ganberg, Aptima, Inc.
Summer Rebensky, Aptima, Inc.
Adam Fouse, Aptima, Inc.
Svtilana Volkova, Aptima, Inc.

TUT 3: FUNDAMENTALS OF MODELING AND SIMULATION
1245 – 1415 • 330AB

A PROCESS FOR DISTRIBUTED LVC INTEGRATION AND EXECUTION

25T48

Integration and execution of large distributed Live, Virtual, Constructive (LVC) events consume substantial time and resources. While the underlying distributed LVC technologies are mature, the processes for integrating events are not. The Distributed Simulation Engineering and Execution Process (DSEEP) standard (IEEE Std 1730-2010) describes a process model for developing an event. DSEEP defines a set of seven steps divided into activities and provides representative inputs and outputs for each activity. However, the user must still instantiate the process and develop artifact templates, which is a substantial effort.

An instantiation of DSEEP was developed based on the authors' experience integrating and executing many distributed LVC events. This implementation has nine steps, divided into 27 activities. The process adds two additional steps to DSEEP. One introduces tabletop wargaming to refine event requirements. The second develops a digital twin of the target system to improve integration accuracy. The process provides detailed guidance, templates, and procedures to integrate simulations and tactical systems, ensuring the LVC environment meets event objectives.

A key focus of the process is Step 7: Integrate & Validate the Event Environment, which ensures a fully operational and trusted LVC environment before execution. The tutorial emphasizes validation techniques, iterative testing, and risk mitigation strategies to address challenges in system interoperability, data integrity, and cyber resilience. The process also accounts for multi-architecture integration, live system interactions, and cybersecurity considerations, which are increasingly critical in modern distributed events.

The goal of a structured Distributed LVC Integration and Execution Process is to produce a verified and validated environment that reduces execution and analysis risks. Without a structured process, integration failures may delay execution, and unverified environments can generate inaccurate results that compromise decision-making.

This tutorial provides an overview of the complete process, with a detailed walkthrough of selected steps, particularly Step 7. Attendees will gain insights into inputs, tasks, outputs, and real-world examples applicable to distributed LVC environments using multiple architectures, live entities, and cyber operations.

Originally developed to support distributed Test & Evaluation, this process is also applicable to training, research & development, and experimentation. The tutorial is valuable for anyone involved in planning and executing large distributed events, particularly engineers, technical leads, and event managers. No prior knowledge of the DSEEP standard is required.

PRESENTERS

Roy Zinser, Trideum Corporation
Kenneth LeSueur, Trideum Corporation
Michael O'Connor, Trideum Corporation
Ed Lerz, Huntington Ingalls Industries
John Furr, U.S. Army Future Concepts Center
Brett Boren, U.S. Army Redstone Test Center
Tilghman Turner, U.S. Army Redstone Test Center

TUT 5: SIMULATION BUILDING BLOCKS
1245 – 1415 • 320A

SCENARIO-CENTERED LEARNING: METHODS FOR SITUATIONAL TRAINING IN A VOLATILE WORLD

25T47

XR, AI, and Simulation can recreate nearly limitless hyper-realistic scenarios, but how should these scenarios be designed for optimal training effectiveness? And how do we know it worked?

Hint: It's not about the tech.

Military training faces evolving challenges, as rapid tech adoption, complex missions, and an ever-changing global security picture influence readiness demands. The need remains however to ensure training optimally addresses intended outcomes. Research findings widely acknowledge the efficacy of experiential learning within an authentic practice environment, where just-in-time training contextualizes the when, why, and how of skill practice. But understanding what "authentic" really means and how to build experiential learning that meets that standard requires sound, science-backed methodologies and processes.

In this tutorial we present a general approach that transforms instruction by immersing learners in authentic, mission-critical contexts, where instruction is provided at the point of need, and discuss its applicability to modern military training. We start with the hook: a 60-second scene from Ender's Game that raises fundamental questions about the stakes of authenticity, emotional engagement, and aligning performance objectives with instruction.

We then introduce one example of this approach, Scenario-Centered Learning, that we have applied across numerous Fortune 500 companies. We illustrate this methodology in practice by walking through the steps in the design process via concrete examples from recent training projects. We also explore a range of tools to support some of the steps in this process, and show as examples two tools we have created and use in-house, one for building the training and another for creating and managing the AI components.

Participants will explore how knowledge and skills application in authentic, relevant contexts, exemplified for illustration purposes by Scenario-Centered Learning paired with AI, creates impactful training for warfighters. This is especially relevant for DoD readiness challenges like the contextual complexities of real-time decision-making and cyber security. Participants will learn how to apply scenario-centered learning frameworks that prioritize performance objectives, authentic tasks, and real-time feedback, and will be presented with practical steps for implementation of this approach.

This tutorial is intended for defense training professionals with an interest in innovative, scenario-based approaches to develop impactful learning solutions. Basic knowledge of instructional design is helpful but not required, and no advanced technical expertise is needed. Attendees will leave with general exposure, supplemented by case studies, to tools and methods for applying scenario-centered learning to a broad range of applications to enhance DoD training.

PRESENTERS

Benjamin Bell, Ph.D., Potawatomi Business Development Corporation - Federal Group
Tammy Berman, Socratic Arts

TUT 6: SIGNALS FROM HUMAN AND SPACE
1245 – 1415 • 320B

FROM SIMULATION TO REALITY: COMBATTING SOCIAL ENGINEERING WITH SERIOUS GAMES

25T43

Social engineering attacks remain one of the most effective methods for adversaries to infiltrate secure environments by exploiting human psychology. The author and his team successfully conducted a simulated sociotechnical attack on a three-star general of the Swiss Armed Forces, exposing critical vulnerabilities within high-level military command structures. The insights gained from this operation underscored the urgent need to disseminate these findings more broadly to enhance organizational security across various sectors.

Traditional security awareness training often fails to create lasting behavioral change. This tutorial addresses this challenge by introducing innovative training methods, including a serious game that turns real-world attack scenarios into interactive, experience-based learning. Participants will learn how to design and implement similar approaches to improve engagement and knowledge retention. The tutorial also provides insights into integrating these methods into existing cybersecurity curricula, drawing on lessons learned from the Swiss Armed Forces cyber training program.

Effective social engineering defense requires realistic scenarios that incorporate psychological, technical, and organizational aspects. A progressive increase in complexity allows participants to develop adaptive countermeasures against sophisticated attacks. Gamification elements, such as storytelling or point-based systems, further enhance motivation and learning outcomes.

As social engineering techniques evolve, training programs must continuously adapt to emerging attack methods and technological advancements. A structured and dynamic approach strengthens security awareness and the ability to detect and counteract manipulation early. By fostering a strong security culture through ongoing updates and realistic exercises, organizations can effectively reduce risks.

This tutorial explores the development, deployment, and lessons learned from these implementations. Participants will gain insight into designing realistic attack simulations, the role of experiential learning in cybersecurity, and strategies for application within their organizations. Drawing from military exercises, academic research, and real-world cases, attendees will acquire practical tools to enhance collective security and strengthen defenses against human-centric cyber threats.

PRESENTER

Philipp Leo, Leo & Muhly Cyber Advisory, LLC

TUT 7: WIRING THE LVC WORLD
1245 – 1415 • 320C

ACHIEVING SECURE AND SCALABLE INTEROPERABILITY: OMG DDS FOR MOSA-COMPLIANT LVC TRAINING

25T39

In modern defense training and simulation, interoperability and security remain critical challenges. The U.S. Department of Defense mandates the Modular Open Systems Approach (MOSA) to ensure flexible, scalable, and vendor-agnostic solutions across LVC training environments. However, traditional simulation architecture standards struggle to provide real-time, secure, and multi-level data exchange required for distributed training. The Object Management Group (OMG) Data Distribution Service (DDS) standard is emerging as the backbone for next-generation MOSA-compliant defense training systems, providing high-performance, scalable, and secure interoperability.

This tutorial offers a comprehensive exploration of the DDS standard, showcasing its pivotal role in addressing the twin imperatives of interoperability and security within distributed LVC simulation environments. DDS stands as a cornerstone middleware solution, adept at facilitating hard real-time data distribution across diverse systems while providing robust security mechanisms to safeguard sensitive simulation data.

This tutorial will explore how DDS enables MOSA compliance, allowing defense training and simulation systems to transition from stovepiped architectures to open, composable, and modular frameworks. Attendees will gain insight into the layers of interoperability, understanding how DDS facilitates real-time, data-centric communication across LVC, cloud-based, and hardware-in-the-loop (HIL) systems.

Throughout the tutorial, participants will learn the fundamental principles of DDS, starting with its configuration for seamless integration with LVC simulations. From designing DDS entities and data models to fine-tuning performance and scalability through a suite of quality-of-service parameters, attendees will gain insights into harnessing DDS's capabilities to meet the diverse needs of distributed simulation environments.

A key focus will be on the DDS Security Standard, which provides built-in authentication, access control, encryption, and data tagging, allowing simulations to operate across multiple classification levels in joint, multi-domain, and coalition environments. Unlike traditional architectures that rely on external security overlays, DDS natively enforces security at the data level, enabling fine-grained control over information exchange.

Additionally, this tutorial will highlight DDS's role in integrating with existing simulation frameworks and real-world DoD programs. Attendees will learn how DDS provides a high-performance real-time transport over WAN, RF, Tactical Data Links (TDL), and 5G, ensuring low-latency, secure data exchange for distributed LVC training.

By attending this session, participants will gain a comprehensive understanding of how DDS bridges the gap between operational and training systems, enabling secure and scalable distributed simulation architectures. Whether you are a simulation developer, integrator, or program manager, this tutorial will equip you with the knowledge to implement DDS for future-proof, secure, and interoperable training solutions.

PRESENTERS

Robert Proctor, Jr., Real-Time Innovations (RTI)
David Whitten, Real-Time Innovations (RTI)

TUT 8: ENHANCING COMFORT IN IMMERSIVE TRAINING
1245 – 1415 • 320D

MINIMIZING CYBERSICKNESS IN THE DESIGN, IMPLEMENTATION AND MANAGEMENT OF LEARNING SYSTEMS WITH VIRTUAL ENVIRONMENTS

25T59

Learning Outcomes: Attendees will come away with a knowledge of cybersickness (CyS), including causes and factors affecting CyS, as well as how to design virtual environments (VEs) and curricula to minimize CyS effects upon students and learner outcomes.

Purpose: This tutorial is designed to provide those involved in producing and implementing VEs for training with a basic knowledge of CyS. This is significant because CyS can reduce the training effectiveness of systems utilizing VEs and visual simulations, even to the point of making it unusable. Mitigating the effects of CyS begins in the design of the system, where minor decisions can result in substantial differences in the CyS effects of the final system. Likewise, curricula design can greatly impact the degree that CyS affects students.

Background: Militaries across the globe are planning on utilizing VEs to improve their training, whether they be traditional simulators using screens or the most up-to-date technology such as head mounted displays for virtual reality, augmented reality, mixed reality, or extended reality. There is a general belief among both the general public and the training community that the technological advancements in the latest generation of these devices have eliminated the effects of CyS. However, this is decidedly not true.

CyS is a phenomenon that occurs when individuals experience symptoms while using simulation technology, such as flight simulators or VEs. These symptoms include disorientation, dizziness nausea, headaches, eye strain, general discomfort, and fatigue as well as others. These affect a large percentage of the user population, with some experiencing minor effects easily ignored and others being unable to utilize the system at all.

Improvements in technology have reduced or eliminated some of the causes of CyS, but there are causes that are inherent in humans which technology is unlikely to eliminate. This means that everyone involved in the design, development, and implementation of training VEs must understand the causes of CyS, how to mitigate them, and how to create systems that reduce both the likelihood and severity of CyS symptoms. Otherwise, it will be impossible to properly utilize the incredible potential of these technologies.

Topics: This tutorial will provide attendees with a basic knowledge of the underlying causes of CyS, which factors aggravate or mitigate CyS, how CyS degrades learning, as well as how to design a VE system and create a curriculum to minimize CyS's effects.

PRESENTERS

Perry McDowell, NPS MOVES Institute
Bruce Haycock, University Health Network – KITE
LCDR Nicholas Adriaanse, USN, NSWCDD DNA

TUT 9: SIMULATION DEVELOPMENT AND DEPLOYMENT
1245 – 1415 • 320E

SIMULATION AND THE CYBER-SECURE HYBRID CLOUD (CSHC)

25T40

As the simulation industry has grown over the decades to several hundred sites, many different contractors have chosen different paths for design, development, and deployment. This has resulted in unique security requirements, tools, personnel, policies, and contract vehicles that make the entire enterprise, across all training platforms, difficult and expensive to manage and keep secure, particularly considering the ongoing evolution of security threats. Most of the system designs are platform specific, tightly coupled architectures and solutions that are difficult to reuse, and often have limited interoperability with other simulations, resulting in "Fair Fight" challenges due to different Synthetic Environments and databases. Multiple classification levels also contribute to interoperability challenges.

As the simulation industry largely continues to use discrete computers and devices to implement training systems, computational resources are often over-specified as a risk reduction measure resulting in unused resources. Cloud technology provides the advantage of being dynamically configurable and scalable depending on the load and enhances commonality, sustainability, and resilience while minimizing hardware obsolescence issues.

Our Industry have recognized that digital transformation, enabled by cloud technology and supported by modular open systems approach (MOSA) and model-based systems engineering, provides the right path forward for the future.

This tutorial presents a potential path forward, via a Cyber-Secure Hybrid Cloud (CSHC). We intend to show how CSHC enables solutions to these challenges and provides more benefits to the simulation domain and show successful implementation and methodology use cases under the Air Force Simulator Common Architecture Requirements and Standards (SCARS) initiative at the end of the presentation.

The presentation is structured in five parts to achieve its core learning objectives:

- First, we will provide an overview of the problems facing the industry.
- Next, we continue with understanding Cloud Technology to provide a basic understanding of what Cloud Technology is and the features and benefits it provides. This will include a range of topics, from hypervisors and Virtual Machines to Kubernetes, and then more advanced capabilities, including Enterprise Services.
- Third, we will show how Cloud Technology can help resolve most of the challenges presented in the problem statement. This includes applicability of the technology, features, and benefits of CSHC solutions addressing the challenges.
- Then, we will discuss successful Transition to CSHC Solutions from where we are today.
- Finally, Understanding the Vision of Digital Transformation using CHCS will show that application of these new technologies will require a transition with Enterprise Standard Architecture and standards.

PRESENTERS

Tansel Kendir, CAE USA
Glenn Diehl, CAE USA
Katie VanErven, CAE USA

TUT 10: MEASURING YOUR SUCCESS
1245 – 1415 • 320F

BUT HOW DO YOU KNOW THEY LEARNED THAT?

25T35

The evolution of augmented reality (AR) and virtual reality (VR) simulations offers unprecedented opportunities for competency-based training and assessment. However, most existing AR/VR training solutions remain procedural and knowledge-based, primarily supporting vocational or mechanical training rather than constructivist, learning-by-doing approaches that foster real-world competencies. This tutorial session focuses on moving learners from novice to expert efficiently and effectively by leveraging AR/VR simulations as adaptive instructional systems (AISs) designed to assess and develop competencies rather than just knowledge retention.

A core principle of this approach is understanding how people learn best. The ICAP framework (Chi & Wylie, 2014) asserts that increased engagement levels—passive, active, constructive, and interactive—enhance learning outcomes. Similarly, Dewey's (1938) experiential learning theory reinforces that knowledge is socially constructed and must be situated in real-life contexts. Therefore, AR/VR-based learning environments should enable interactive, socially constructed experiences, offering superior learning outcomes compared to traditional, passive methods.

To maximize effectiveness, AR/VR simulations should integrate best practices from intelligent tutoring systems (ITSs) and adaptive instructional design. This includes modular system architecture with content, learner, and adaptation modules to tailor instruction dynamically based on learner and/or team performance. Unlike static, two-dimensional, computer-based training, a well-designed AIS within AR/VR can accelerate skill acquisition, ensure competency mastery, and provide real-time performance assessment.

This session will explore key design considerations in developing AR/VR competency-based simulations, including:

- Competency-Based Learning and Assessment: Designing for analytical thinking, problem-solving, technical proficiency, digital literacy, communication, project management, and adaptability.
- Scenario Design for High-Quality Evidence Collection: Ensuring tasks reflect real-world complexity and allow valid assessments of competency mastery.
- AI/ML Integration for Adaptive Learning: Leveraging AI-driven performance analysis to support personalized instruction and competency validation.
- Communication to Learning Management Systems (LMSs): Ensuring collected data translates into actionable insights for training improvement.

The future of AR/VR training must go beyond basic procedural tasks and embrace learning engineering principles to create evidence-driven competency development tools. By designing adaptive, immersive, and interactive simulations, we can revolutionize training effectiveness across military, corporate, and technical fields.

We must demand more from AR/VR training. Do not go gentle into the black night of the current state of AR/VR training simulations. Rage, rage against the dying of the light! Challenge every AR/VR training solution to

provide evidence of an informed learning design, because the data to prove learning effectiveness can—and must—be collected.

PRESENTERS

Blair Lehman, Brighter Research
Jeanine DeFalco, Mixta Re, Inc.

TUT 11: DESIGN FOR LEARNING AND ENVIRONMENTS
1245 – 1415 • 320G

BUILDING 3D ENVIRONMENTS FOR SIMULATION: STANDARDS AND BEST PRACTICE

25T63

In the real world we take the world around us for granted but in a simulation, all aspects of the world, the terrain, trees, lakes, vehicles, aircraft and the atmosphere they fly in have to be modelled with enough characteristics and fidelity to satisfy the purpose of the simulation. In a simulation, the world around the object we are simulating, is modelled in 3D and referred to as the synthetic physical environment.

Accurate and realistic modelling of the world surrounding a simulated system or a system operator is a complex, resource-intensive, and technically demanding task. The level of detail and fidelity required for representing the world varies significantly depending on the specific objectives of a given simulation task. Some applications demand highly detailed and precise data, while others may prioritize computational efficiency over absolute accuracy.

Moreover, constraints imposed by image generation technologies and other supporting systems often necessitate optimizations that, if not carefully managed, can introduce unwanted artifacts. These artifacts may compromise realism, reduce system interoperability, and ultimately impact the effectiveness of training, analysis, or operational decision-making. Additionally, factors such as data reuse, integration of live elements, and cross-platform interoperability further complicate the modeling process, making it essential to adopt standardized approaches and best practices.

This tutorial is designed to provide attendees with an overview of the challenges associated with acquiring or developing a 3D model of the world that meets the specific requirements of a simulation task while enabling future updates and allowing for reuse in and interoperability with other simulation systems.

Key topics covered in this tutorial include:

- Fundamentals of real-time 3D Simulation Databases: An introduction to what constitutes a simulation 3D database and its role in defense and operational simulation.
- Data Acquisition and Processing: How 3D models are derived from source data such as elevation datasets, satellite imagery, and geospatial information.
- Standards for Interoperability and Data Exchange: An overview of key international standards developed to facilitate data sharing and interoperability across simulation platforms.
- Standardization Organizations and Their Contributions: A discussion on relevant standardization bodies, including their roles and ongoing efforts to enhance interoperability in simulation environments.
- NATO Science and Technology Organization (STO) Guidelines: An examination of NATO's recommendations and best practices for 3D modeling in defense applications.
- Emerging Technologies and Future Trends: Insights into new and upcoming advancements in 3D modeling

PRESENTERS

Stefan Sandberg, Labatus AB
Andy Fawkes, Thinke Company Ltd

To view author bios, please view the Digital Program at **IITSEC.org/Agenda/Agenda-Details.**
The most up-to-date session information is available on the mobile app.

ROOM	SESSION	1400	1430	1500
320A	ECIT 1: Large Language Models in Action: Trust, Testing, and Tactical Edge	25307 Space Hazard AI into Warfighter Kill Chains Toward Operational Dominance	25321 Leveraging Large Language Models for Generating Integration Test Code	25368 Can We Trust LLM-Generated Code? A Quantitative Verification Study
320B	SIM 1: Be Dazzled in XR/VR	25185 Simulating Aircrew Laser Dazzle in a Virtual Reality Environment	25109 XR-powered Remote Maintenance Support and Training for Naval Shipyards	25324 Overcoming Challenges of Integrating Heterogeneous Commercial and Open-Source Tools in Extended Reality Applications
320C	ECIT 2: Digital Readiness Reimagined: Twins, Sims, and the Synthetic Edge	25135 Enabling Multi-Domain Operations Through Wargames, Simulation, and Live Exercises	25357 Digital Twins: Adding New Dimensions to Simulation and Operational Effectiveness	25335 Synthetic Data: Fueling the Digital Revolution
320D	PSMA 1: Digital Twins and Culture: Can You Tell Them Apart?	25241 Building a Digital Engineering Culture	25312 Validating a Digital Twin Taxonomy for Defense: Enhancing Interoperability in Simulation and Digital Engineering	
320E	ED 1: From Data Crunch to Combat Punch: Talent, Culture, and Terrain Unleashed	25330 Enabling a Data Culture to Drive Data-Centric Practices Across the Military — From Training to Operations	25197 Feasibility of 3D Extended Reality for Terrain Understanding	25392 Predicting the Human Factor: Data-Driven Talent Identification and Training Optimization
320F	TRN 1: Training Beyond the Range	25351 Beyond the Range: Merging Simulation and Reality	25334 Advancing Squad Performance Analytics and Team Training with Multimodal Data in STEEL-R	25382 Building Readiness: A Competency-Based Framework for Military Medical Training in U.S. Marine Corps Exercises
330EF	Best Paper 1	25384 HPAE: Video-Based Performance Evaluation for ECR Drills in Synthetic Training Environments	25402 TRAINING: Trainee Action Recognition through Interaction Analysis in CCATT Mixed-Reality Training	25389 EDUCATION: The Use of Silicon Clients as a Training Tool for Emerging Mental Health Specialists

ROOM	SESSION	1600	1630	1700
320B	SIM 2: Reality & Abstraction in Modern Simulation	25155 Advancing Multi-Agent Autonomy: Challenges and Solutions in LVC Simulation Testbeds	25168 Bridging Pre-Training and Simulation: Enhancing AI Performance with Unity ML-Agents	25139 Use of Simulation to Train AI for Swarm Based Underwater Behavior – Lessons Learned from Talisman Sabre 2025
320D	PSMA 2: Training Me Softly, With Your Prompt...	25111 Systems Engineering Automation Through Artificial Intelligence (AI) and Natural Language Processing (NLP)-Based Software	25333 Policy Considerations for Training Developed Using Generative AI	25403 Integrating Biometrics, Policy, and Data-Driven Training: Enhancing Military Readiness and Reducing Risk
320E	ED 2: Boots, Bots, and Beyond	25365 Advancing Military Education, Assessment, and Communication through AI-Enhanced Extended Reality Simulations	25400 TopoGen: Training Generative AI to Produce Maps for Experiential Scenarios	25326 Next-Gen Instructional Design: AI's Revolution in Transforming Virtual Training Development
320F	TRN 2: Examining Human Performance in Training	25328 Optimizing Soldier Performance Through Coaching: A Framework for Stress Intervention Research	25181 A Perspective on Training and Education for Space Domain Awareness in Military Space Operations	25254 Cognitive Load-Based Curriculum Adaption in Human-Machine Team Training Scenarios
330EF	Best Paper 2	25422 SIMULATION: Multi-Agent Board Game Strategy Through Simulation	25210 ECIT: Trustchain: Doubt is the Origin of Wisdom	25279 PSMA: Utilizing Lessons from Foreign UAS Threats to Inform Domestic Counter-UAS

ROOM	SESSION	0830	0900	0930
320A	ECIT 3: Saving Time: LLMs for Training Content Creation	25108 Secure Interactive Courseware Creation for Distributed Training using on-premise Generative Artificial Intelligence	25397 Transforming Technical Documentation into On-Demand Adaptive Training Content	25401 Training Developer Feedback on AI for Revision of Content (ARC)
320B	SIM 3: Cyber Integration for M&S	25145 Providing Asymmetric Information Advantage and Cyber Multidomain Operations Training Capabilities	25275 Integrating existing Cyber Ranges and Cyber Tools into LVC Simulations	25354 Challenges and Solutions in Using Virtual Testbeds to Study Hackers
320C	HPAE 1: Big Data? Bigger Challenges!	25255 Modeling Human Decision Attributes to Enhance AI Trustworthiness	25264 Evaluating an LLM-based Course-of-Action-Analysis Assistant for Simulated Tactical Decision-Making	25381 xAPI in Action: Field Validation of Bridging Interoperability Gaps in Medical Training with Generalized Intelligent Framework for Tutoring (GIFT) and Competency-Based Learning
320D	PSMA 3: Train. Trace. Sustain.	25319 Data Traceability for Complex, Distributed Live, Virtual, Constructive Simulation Events	25363 Resilience of M&S Capabilities	25235 Changing the Training System Sustainment Paradigm with Product Support Analysis
320E	ED 3: Innovating Talent Strategies: Competency, Collaboration, and Engagement in the Modern Force	25173 Using Multisensory Interactive Storytelling to Broaden Recruitment Efforts	25355 Competency Modeling in the USSF	25362 DAFMAN for a New Era: Uniting Expertise to Implement Competency-Based Learning
320F	TRN 3: Training Strategies	25193 Integrating Skill Attainment and Enterprise Modeling into Optimal Training Event Scheduling	25258 'Airmanship' on the Radar: Military Aircrew Instructors' Perceptions of Non-Technical Skill Assessment Methods, Training Strategies and Standards	25192 A Data-Centric Approach for Extracting Flight Maneuvers from Pilot Training Time Series Data
320G	ECIT 4: Strategic Automation and AI for Mission-Critical Training	25364 Automated Deployment of Distributed Simulation Environments Effectively Using Artificial Intelligence	25411 Using Mixed Reality and Artificial Intelligence for Complex Task Guidance in a UH-60 Environment	

ROOM	SESSION	1030	1100	1130
320A	ECIT 5: Simulation Driven Reinforcement Learning: Validation, Integration, and Uncertainty Challenges	25118 A Hierarchical Hybrid AI Approach: Integrating Deep Reinforcement Learning and Scripted Agents in Strategic Combat Simulations	25164 Autonomous Vehicle Design Conformity Validation in Simulation Using Reinforcement Learning	25259 Uncertainty Uses in Reinforcement Learning Both During and After Training
320B	SIM 4: Digitizing a Printable Planet	25226 Transforming Terrain Databases into Battlefield Environments Using Compile-Time Dynamics	25257 Virtual Environment for Aerospace Simulation and AI Data: Focused on Automatic Building Generation	
320C	HPAE 2: Two to Tango: Teaming with AI	25407 AI Trust and Alignment in High-Stakes Decision-Making Environments	25228 Effects of Human-Machine Interface Recommendation Accuracy on Trust when Controlling Collaborative Combat Aircrafts in Complex Missions	
320D	PSMA 4: Ctrl+Alt+Delete: Rebooting Defense M&S Standards for the 21st Century	25122 Aligning Flight Simulation Software with MOSA Standards	25200 Stockholm Syndrome: Are We Being Held Captive by Our Ancient Interoperability Standards?	25399 The Defense Standards Landscape for Digital Engineering, Modeling & Simulation
320E	ED 4: Great Performances: Next-Gen Strategies for Assessment	25117 Rebooting Air Force Talent: Navigating the Skills Revolution in a Technological Era	25289 Beyond Happy Hour: Lessons in BARS (Behaviorally Anchored Rating Scales)	25293 Adaptive Approach to Continuous Norming During Course Changes
320F	TRN 4: Of Paper and Pixels: Advancing Training at All Fidelities	25131 Comparing Input Modalities in Extended Reality for a Virtual Learning/ Training Task	25201 Advancing Police Training Through Virtual Simulation: Lessons from Dubai Police	25217 Can Low Fidelity Tabletop Games be used to Improve Teamwork?
320G	ECIT 6: Cognitive Crossroads	25277 Closed-Loop Neuromorphic Artificial Intelligence for Decision Support	25372 Exploiting Cognitive Vulnerabilities: Quantifying Loss Aversion in Cybersecurity with LLMs	25373 Human-AI Collaboration for Synthetic Media Detection in Training and Operations

WEDNESDAY, 3 DECEMBER

ROOM	SESSION	1330	1400	1430
320A	ECIT 7: The AI Playbook: Designing Missions and Forces at Machine Speed	25157 Applying AI-Driven Generative Models for Computer-Generated Force Scenario Generation	25367 Towards AI-Assisted Generation of Military Training Scenarios	25418 On-Demand Intelligent Agent Generation
320B	SIM 5: It's All About RF	25160 A Million Points of RF – Enabling High Fidelity Interactions in the Synthetic Space	25266 RF Digital Twins Demand for Digital Threats, Challenges and Solutions	25345 Multi-physics SAR Simulation for Correlated Radar Imaging in Synthetic Environments
320C	HPAE 3: Gimme a Break! Assistance in Workload Reduction	25237 Workload Distribution Across Varying Assistance Levels in Simulated Mission Drives	25215 Impact of Decision-Support Tools on Novice Workload in VR	25434 Operationalizing Persistent Augmented and Virtual Environments in Naval Aviation Maintenance
320D	PSMA 5: Fast Track: Accelerating Defense Learning and Acquisition	25116 Measuring Learning Technology Maturity in DoD Acquisition	25432 From Red Tape to Red Bows: Urgent Defense Acquisition Transformation	25456 The DoD Learning Enclave (DLE) as an Enabler of Force-Level Decision-Making
320E	ED 5: Adaptive Excellence: Performance Driven Training for Critical Operations	25391 Evaluation of Difficulty-Based Adaptive Training Strategies for Simulated Flight Training	25102 Enhancing Decision-Making Under Pressure: Adaptive Training Frameworks for High-Stakes Environments	25316 Mission Ready: Leveraging Performance-Based Training to Enhance Security Operations Proficiency
320F	TRN 5: Novel Strategies: Elevate Performance and Create Training Process Efficiencies	25318 Advancing Usability Training: A Methodology for Rapid Development of Usability Competencies Using an AI-driven Knowledge Repository	25147 Are Training Models and Simulations Credible? A Straightforward Method for Answering that Question	25309 Find Waste, Improve Quality and Deliver Better Training

ROOM	SESSION	1530	1600	1630
320A	ECIT 8: AI–Powered Autonomy: From Design to Deployment	25191 Assessing Communications Equipment Performance for Reliable USV Teleoperation and Autonomy	25224 Automating Training Design through Retrieval Augmented Generation and Hierarchical Reasoning	25246 Creating a Scalable Virtual Flight Instructor Using Large Language Models
320B	SIM 6: Simulation Platforms & Interoperability Architectures	25144 Integrating DIS V8, Challenges and Opportunities	25271 Achieving Distributed Training Through MSaaS: Results and Insights	25218 Simulator of Theseus: Substituting Parts for a Memory Safe Simulator
320C	HPAE 4: Sassy Assessments with Multi-Modal Measurement	25213 Assessing Virtual Reality Head-Mounted Display-Induced Cybersickness in Simulated Maritime Dynamic Environments	25282 Assessing Cognitive State Adaptations using Predictive Models	25394 Human Factors and Neuroscience in Next-Generation Simulation Environments
320D	SIM 7: Sim Tech Fusion	25376 Simulator Environment Configuration for Integrated Threat Response and Evasive Maneuvers of Aircraft	25225 Mission Possible: Dead Reckoning with Artificial Intelligence	25350 Point-of-Need Joint Integrated Air and Missile Defense LVC Training Solutions

THURSDAY, 4 DECEMBER

ROOM	SESSION	0830	0900	0930
320A	ECIT 9: AI-Driven 3D Environment Reconstruction	25126 Automating 3D Terrain Generation for Simulation: An AI based Pipeline for Drone Imagery Processing	25325 3D Buildings from Floorplan	25443 Scaling for Monocular Depth Estimation in the Reconstruction of 3D Environments
320B	SIM 8: Building Smarter Systems	25393 Incorporation of Automated Cyber Adversaries to Improve Cyber-Kinetic Training	25220 Optimizing Defense AI with Simulation-Driven CI/CD	25287 A Scalable Open-Source Simulation Framework for Neuroevolution and Multi-Agent Behavior Research
320C	HPAE 5: Words, Waves, and Wanderings: Unconventional Measures of Effective Teamwork	25448 Can Dialogue Features Help Predict Team Performance?	25236 Improving Mission Performance and Readiness for Rapidly Composed Military Teams	25431 Enhancing Nurse Rounding Performance and Patient Satisfaction Using Real Time Location System

ROOM	SESSION	1030	1100	1130
320A	ECIT 10: Methods to Training AI to Ensure Integrity of Outcomes	25120 How Artificial General Intelligence Will Train Itself	25132 Knowledge Without Learning: A Zero Shot Approach to SAR ATR	25242 Advancing Expertise Development Through Adaptive Human-AI Training
320B	SIM 9: From Simulation to Deployment: AI & Network Innovations in Defense	25265 Context-Aware Human Performance Measurement for Simulation-based Tactical Training	25349 Training and Evaluating Machine Learning Models using XR Simulated Data for Autonomous Vehicle Control in Real-Time Simulated Traffic	25458 Evaluation of Time Sensitive Networks (TSN) for use in Army Aviation platforms
320C	HPAE 6: Cognition Under Fire: Training for Chaos, Designing for Clarity	25387 The Effects of Dichotic Listening in Unmanned Aircraft Systems (UAS) Pilot Efficiency	25427 Capital Gains: Leveraging Human-Centered COPs for More Effective Incident Management in DC and Beyond	25453 Attention Control Predicts Operational Errors in Expeditionary Robotics Warfare Operators

BEST PAPER

BP1 TUESDAY, 2 DECEMBER • 1400 – 1530 • ROOM 330EF

BEST PAPER NOMINEE SESSION 1

Session Chair:
Session Deputy:

25384 HPAE: Video-Based Performance Evaluation for ECR Drills in Synthetic Training Environments
Surya Rayala, Marcos Quinones-Grueiro, Ph.D., Naveeduddin Mohammed, Ashwin TS, Ph.D., Gautam Biswas, Ph.D., Institute for Software Integrated Systems – Vanderbilt University; Benjamin Goldberg, Ph.D., Paige Lawton, Ph.D., U.S. Army DEVCOM SC STTC

25402 Training: Trainee Action Recognition through Interaction Analysis in CCATT Mixed-Reality Training
Divya Mereddy, Marcos Quinones-Grueiro, Ph.D., Ashwin TS, Ph.D., Institute for Software Integrated System – Vanderbilt University; Eduardo Davalos, Vanderbilt University; Gautam Biswas, Ph.D., Institute for Software Integrated Systems – Vanderbilt University; Kent Etherton, Ph.D., 711th Human Performance Wing; Tyler Davis, AFRL; Katelyn Kay, 711th Human Performance Wing; Jill Lear, USAF En Route Care Research Center; Benjamin Goldberg, Ph.D., U.S. Army DEVCOM SC STTC

25389 Education: The Use of Silicon Clients as a Training Tool for Emerging Mental Health Specialists
Leticia Villarreal, Texas A&M University-Corpus Christi; Bailey Miller, Autonomy Research Institute; Michael Devotta, Collin Scarince, Ph.D., Texas A&M University-Corpus Christi

BP2 TUESDAY, 2 DECEMBER • 1600 – 1730 • ROOM 330EF

BEST PAPER NOMINEE SESSION 2

Session Chair:
Session Deputy:

25422 Simulation: Multi-Agent Board Game Strategy Through Simulation
Cody Flynn, Andres Espinosa, Jorg Peters, Ph.D., Maximillian Banach, Jason Li, Han Mach, Cathy Quan, University of Florida; Brian Stensrud, Ph.D., CAE

25210 ECIT: Trustchain: Doubt is the Origin of Wisdom
Chanler Cantor, Connor Baugh, Andrew Bellocchio, Ph.D., Kyle Russell, Quen Parson, William Marx, Ph.D., Intuitive Research and Technology Corporation

25279 PSMA: Utilizing Lessons from Foreign UAS Threats to Inform Domestic Counter-UAS
Brice Ott, U.S. Army TSMO

EDUCATION

ED1 TUESDAY, 2 DECEMBER • 1400 – 1530 • ROOM 320E

FROM DATA CRUNCH TO COMBAT PUNCH: TALENT, CULTURE, AND TERRAIN UNLEASHED

Session Chair:
Session Deputy:

25330 Enabling a Data Culture to Drive Data-Centric Practices Across the Military—from Training to Operations
Ray Compton, LMI

25197 Utility of 3D eXtended Reality for Terrain Understanding
Colleen Chen, Ph.D., Tom Hueting, Thomas Schoonman, TNO

25392 Predicting the Human Factor: Data-Driven Talent Identification and Training Optimization
LCDR Nicholas Armendariz, Ph.D., USN, Naval School of Aviation Safety; JJ Walcutt, Ph.D., DAF/A1

ED2 TUESDAY, 1 DECEMBER • 1600 – 1730 • ROOM 320E

BOOTS, BOTS, AND BEYOND

Session Chair:
Session Deputy:

25365 Advancing Military Education, Assessment, and Communication through AI-Enhanced Extended Reality Simulations
Maggie Mosher, Ph.D., Amber Rowland, Ph.D., University of Kansas Achievement and Assessment Institute; Lisa Dieker, Ph.D., University of Kansas Department of Special Education

25400 TopoGen: Training Generative AI to Produce Maps for Experiential Scenarios
Joel Walsh, Ph.D., Sophia Khan, Benjamin Nye, Ph.D., USC Institute for Creative Technologies

25326 Next-Gen Instructional Design: AI's Revolution in Transforming Virtual Training Development
Jared Benedict, Mark Zais, Ph.D., Integration Innovation, Inc. (i3)

ED3 WEDNESDAY, 3 DECEMBER • 0830 – 1000 • ROOM 320E

INNOVATING TALENT STRATEGIES: COMPETENCY, COLLABORATION, AND ENGAGEMENT IN THE MODERN FORCE

Session Chair:
Session Deputy:

25173 Using Multisensory Interactive Storytelling to Broaden Recruitment Efforts
Bruce Chojnacki, Army Cyber Institute; Amela Sadagic, Ph.D., Naval Postgraduate School

25355 Competency Modeling in the USSF
Shane Sizemore, DCS Corporation; Julia Brown, Aptima, Inc.; Emily Anderson, Psy.D., Jennifer Tucker, Ph.D., Space Force; Alex Barelka, Ph.D., Aptima, Inc.

25362 DAFMAN for a New Era: Uniting Expertise to Implement Competency-Based Learning
JJ Walcutt, Ph.D., DAF/A1; Wendy Walsh, Ed.D., Christine Covas-Smith, Ph.D., AETC

ED4 WEDNESDAY, 3 DECEMBER • 1030 – 1200 • ROOM 320E

GREAT PERFORMANCES: NEXT-GEN STRATEGIES FOR ASSESSMENT

Session Chair:
Session Deputy:

25117 Rebooting Air Force Talent: Navigating the Skills Revolution in a Technological Era
Christina Parker, Ed.D., AFSOC; Erica Haglund, Ed.D., Dignitas Technologies

25289 Beyond Happy Hour: Lessons in BARS (Behaviorally Anchored Rating Scales)
Holly Baxter Ph.D., Jennifer Phillips, Allison Hancock, Ph.D., Morgan Borders, Cognitive Performance Group

25293 **Adaptive Normalization of Assessment Scores: A Multi-Study Validation Approach**
Jeremiah T. Folsom-Kovarik, Ph.D., Angela Woods, Daniel Wilson, Joseph Cohn, Ph.D., Soar Technology, LLC; Lee Sciarini, Ph.D., Beth Atkinson, NAWCTSD

ED5 WEDNESDAY, 3 DECEMBER • 1330 – 1500 • ROOM 320E

ADAPTIVE EXCELLENCE: PERFORMANCE DRIVEN TRAINING FOR CRITICAL OPERATIONS

Session Chair:
Session Deputy:

25391 **Evaluation of Difficulty-Based Adaptive Training Strategies for Simulated Flight Training**
Carlie Swords, Maureen Namukasa, Florida Institute of Technology; Wendi Van Buskirk, Ph.D., Matthew Marraffino, Ph.D., Bradford Schroeder, NAWCTSD; Meredith Carroll, Ph.D., Florida Institute of Technology

25102 **Enhancing Decision-Making Under Pressure: Adaptive Training Frameworks for High-Stakes Environments**
Ancuta Margondai, Mustapha Mouloua, Ph.D., University of Central Florida

25316 **Mission Ready: Leveraging Performance-Based Training to Enhance Security Operations Proficiency**
Denise Stevens, Ed.D., Rebecca Taverner-Coleman, Ph.D., Julie Kilbert, General Dynamics Information Technology

EMERGING CONCEPTS AND INNOVATIVE TECHNOLOGIES

ECIT1 TUESDAY, 2 DECEMBER • 1400 – 1530 • ROOM 320A

LARGE LANGUAGE MODELS IN ACTION: TRUST, TESTING, AND TACTICAL EDGE

Session Chair:
Session Deputy:

25307 **Space Hazard AI into Warfighter Kill Chains Toward Operational Dominance**
Cordula Robinson, Ph.D., Stephen Leidner, JANUS Research Group, AER; Ben Prince, AFRL; Radhakishan Shetty, JANUS Research Group

25321 **Leveraging Large Language Models for Generating Integration Test Code**
Duy Hua, Adam Noack, Jenna Coffman, Anastacia MacAllister, Ph.D., Rey Nicolas, General Atomics Aeronautical Systems, Inc.

25368 **Can We Trust LLM-Generated Code? A Quantitative Verification Study**
Edwin Bearss, Ph.D., Trideum Corporation

ECIT2 TUESDAY, 2 DECEMBER • 1400 – 1530 • ROOM 320C

DIGITAL READINESS REIMAGINED: TWINS, SIMS, AND THE SYNTHETIC EDGE

Session Chair:
Session Deputy

25135 **Enabling Multi-Domain Operations Through Wargames, Simulation, and Live Exercises**
Per-Idar Evensen, Helene Holhjem, Daniel Tveit, Ph.D., Karolina Eikås, Ph.D., Norwegian Defence Research Establishment (FFI)

25357 **Digital Twins: Adding New Dimensions to Simulation and Operational Effectiveness**
Graham Long, Thales; Jan Hodicky, Ph.D., NATO HQ SACT

25335 **Synthetic Data: Fueling the Digital Revolution**
Ray Compton, LMI; Erica Dretzka, OSD Chief Digital and AI Office

ECIT3 WEDNESDAY, 3 DECEMBER • 0830 – 1000 • ROOM 320A

SAVING TIME: LLMS FOR TRAINING CONTENT CREATION

Session Chair:
Session Deputy:

25108 **Secure Interactive Courseware Creation for Distributed Training Using On-premise Generative Artificial Intelligence**
Deepak Haste, Sudipto Ghoshal, Ph.D., Jordan Thurston, Qualtech Systems, Inc.; Jason Wong, Ph.D., NIWC Pacific; Sean Rugge, Jacob Dubois, Marine Corps University

25397 **Transforming Technical Documentation into On-Demand Adaptive Training Content**
Ernest Cross II, Ph.D., Matthew Miller, Leonard Eusebi, Charles River Analytics, Inc.

25401 **Training Developer Feedback on AI for Revision of Content (ARC)**
Benjamin Nye, Ph.D., USC Institute for Creative Technologies; Jose-Luis Ambite, Ph.D., Joel Matthew, University of Southern California; Mark Core, Ph.D., Daniel Auerbach, Dilan Ramirez, Joel Walsh, USC Institute for Creative Technologies

ECIT4 WEDNESDAY, 3 DECEMBER • 0830 – 0930 • ROOM 320G

STRATEGIC AUTOMATION AND AI FOR MISSION-CRITICAL TRAINING

Session Chair:
Session Deputy:

25364 **Automated Deployment of Distributed Simulation Environments Effectively Using Artificial Intelligence**
Chris McGroarty, U.S. Army DEVCOM SC STTC; Scott Gallant, Effective Applications; Christopher Metevier, U.S. Army DEVCOM SC STTC; Jeremiah Long, U.S. Army DEVCOM SC; Anup Raval, Greg Tracy, Mark Schlottke, Zack Kiener, Dynamic Animation Systems, Inc.

25411 **Using Mixed Reality and Artificial Intelligence for Complex Task Guidance in a UH-60 Environment**
Brian Williamson, Pierce Powell, Jacob Belga, Ryan Ghamandi, University of Central Florida; Michael Middleton, Northrop Grumman; Nayan Chawla, Virginia Tech; Molly Kluck, Ryan Mckendrick, Northrop Grumman; Ryan McMahon, Virginia Tech; Joseph LaViola, Ph.D., University of Central Florida

ECIT5 WEDNESDAY, 3 DECEMBER • 1030 – 1200 • ROOM 320A

SIMULATION DRIVEN REINFORCEMENT LEARNING: VALIDATION, INTEGRATION, AND UNCERTAINTY CHALLENGES

Session Chair:
Session Deputy:

25118 **A Hierarchical Hybrid AI Approach: Integrating Deep Reinforcement Learning and Scripted Agents in Strategic Combat Simulations**
Scotty Black, Ph.D., Marine Corps Warfighting Lab; Christian Darken, Ph.D., Naval Postgraduate School

25164 **Autonomous Vehicle Design Conformity Validation in Simulation Using Reinforcement Learning**
Mohammed Eleffendi; Mustafa Akbas, Ph.D., Embry-Riddle Aeronautical University

25259 Uncertainty Uses in Reinforcement Learning Both During and After Training
Rahul Krupani, Micah Bryant, Joseph Gleason, Ph.D., Anastacia MacAllister, Ph.D., General Atomics Aeronautical Systems, Inc.

ECIT 6 WEDNESDAY, 3 DECEMBER • 1030 – 1200 • ROOM 320G

COGNITIVE CROSSROADS

Session Chair:
Session Deputy:

25277 Closed-Loop Neuromorphic Artificial Intelligence for Decision Support
Daniel Barber, Ph.D., Lauren Reinerman-Jones, Ph.D., Southwest Research Institute

25372 Exploiting Cognitive Vulnerabilities: Quantifying Loss Aversion in Cybersecurity with LLMs
Soham Hans, USC Institute for Creative Technologies; Nikolos Gurney; Sofia Hirschmann, Stacy Marsella, Northeastern University

25373 Human-AI Collaboration for Synthetic Media Detection in Training and Operations
Laura Cassani, Michael Davinroy, Tatiana Toumbeva, Ph.D., Peter Bautista, Lauren Fortier, James Cook, Ashley Hart, Svtilana Volkova, Ph.D., Aptima, Inc.

ECIT7 WEDNESDAY, 3 DECEMBER • 1330 – 1500 • ROOM 320A

THE AI PLAYBOOK: DESIGNING MISSIONS AND FORCES AT MACHINE SPEED

Session Chair:
Session Deputy:

25157 Applying AI-Driven Generative Models for Computer-Generated Force Scenario Generation
William Dupree, Ph.D., Svtilana Volkova, Ph.D., Hsien-Te Kao, Grant Engberson, Miles Markey, Gabriel Ganberg, Alexxa Bessey, Ph.D., Summer Rebensky, Ph.D., Aptima, Inc.; Thomas Dubai, Serco, Inc.; Nikola Cardenas, Serco, Inc./CAF DTC

25367 Towards AI-Assisted Generation of Military Training Scenarios
Volkan Ustun, Ph.D., Soham Hans, Benjamin Nye, Ph.D., Mark Core, Ph.D., USC Institute for Creative Technologies; James Sterrett, U.S. Army University; Matthew Green, Command and General Staff College

25418 On-Demand Intelligent Agent Generation
Brian Stensrud, Ph.D.; Asher Gibson, Sten King, Robert Hess, CAE

ECIT8 WEDNESDAY, DECEMBER 3 • 1530 – 1700 • ROOM 320A

AI–POWERED AUTONOMY: FROM DESIGN TO DEPLOYMENT

Session Chair:
Session Deputy:

25191 Assessing Communications Equipment Performance for Reliable USV Teleoperation and Autonomy
Ahmet Saglam, Ph.D., Kevin O'Brien, Bratislav Cvijetic, Virginia Zamponi, Yiannis Papelis, Ph.D., Old Dominion University

25224 Automating Training Design through Retrieval Augmented Generation and Hierarchical Reasoning
Taja Hillier, Mission Decisions; Sally Powling, Aquila Learning

25246 Creating a Scalable Virtual Flight Instructor Using Large Language Models
Colin Sullivan, Kyle Tauzer, Mark Cavanagh, Jean Seda, Christopher Lee, Lockheed Martin Corporation

ECIT9 THURSDAY, 4 DECEMBER • 0830 – 1000 • ROOM 320A

AI–DRIVEN 3D ENVIRONMENT RECONSTRUCTION

Session Chair:
Session Deputy:

25126 Automating 3D Terrain Generation for Simulation: An AI based Pipeline for Drone Imagery Processing
Yaniv Minkov, Or Zuriel, Einav Kiperman, Rami Rokach, Yinon Atzmon, Reyymark Technologies

25325 3D Buildings from Floorplan
Michael Cardenas, OWT; Jose Orozco; John Mericle, Leidos; Ronald Ventura-Moore, Maxar

25443 Scaling for Monocular Depth Estimation in the Reconstruction of 3D Environments
Eric Guenther, Anakin Martinez, Amy Neuenschwander, Ph.D., Jeff Perry, Center for Space Research

ECIT10 THURSDAY, 4 DECEMBER • 1030 – 1200 • ROOM 320A

METHODS TO TRAINING AI TO ENSURE INTEGRITY OF OUTCOMES

Session Chair:
Session Deputy:

25120 How Artificial General Intelligence Will Train Itself
David Noever, Ph.D., Joseph Regian, Ph.D., Forrest McKee, PeopleTec, Inc.

25132 Knowledge Without Learning: A Zero Shot Approach to SAR ATR
Javier Garza, George Hellstern, Lockheed Martin Corporation; Matt Reisman, Kevin LaTourette, Tobe Corazzini, Adam Francisco, Ryan McCormick, Bedrock Research

25242 Advancing Expertise Development Through Adaptive Human-AI Training
Jessica Johnson, Ph.D., Old Dominion University

HUMAN PERFORMANCE ANALYSIS AND ENGINEERING

HPAE1 WEDNESDAY, 3 DECEMBER • 0830 – 1000 • ROOM 320C

BIG DATA? BIGGER CHALLENGES!

Session Chair:
Session Deputy:

25255 Modeling Human Decision Attributes to Enhance AI Trustworthiness
Joseph Cohn, Ph.D., Robert Bixler, Angela Woods, Jordan Lampi, Soar Technology, LLC; Neil Shortland, Ph.D., UMass Lowell

25264 Evaluating an LLM-based Course-of-Action-Analysis Assistant for Simulated Tactical Decision-Making
Josh Price, Eng.D., CAE (UK) Plc; Aaron Coutino, Ph.D., CAE; Deniz Yilmaz, Ph.D., CAE GmbH; Peter Meyer zu Drewer, CAE; Giles Moore, Defence Science and Technology Laboratory (Dstl)

25381 xAPI in Action: Field Validation of Bridging Interoperability Gaps in Medical Training with Generalized Intelligent Framework for Tutoring (GIFT) and Competency-Based Learning
Biljana Presnall, Aaron Presnall, Ph.D., Jefferson Institute; Benjamin Goldberg, Ph.D., U.S. Army DEVCOM SC STTC; Gary McDougall, 2d Marine Logistics Group

HPAE2 WEDNESDAY, 3 DECEMBER • 1030 – 1130 • ROOM 320C

TWO TO TANGO: TEAMING WITH AI

Session Chair:
Session Deputy:

25407 AI Trust and Alignment in High-Stakes Decision-Making Environments
Katelyn Smith, AnaCristina Bedoya, Neil Shortland, Ph.D., UMass Lowell; Joseph Cohn, Ph.D., Robert Bixler, Jordan Lampi, Angela Woods, Soar Technology, LLC

25228 Effects of Human-Machine Interface Recommendation Accuracy on Trust when Controlling Collaborative Combat Aircrafts in Complex Missions
Sandro Scielzo, Ph.D., Hely Lin, Nicholas Crothers, CAE USA

HPAE3 WEDNESDAY, 3 DECEMBER • 1330 – 1500 • ROOM 320C

GIMME A BREAK! ASSISTANCE IN WORKLOAD REDUCTION

Session Chair:
Session Deputy:

25237 Workload Distribution Across Varying Assistance Levels in Simulated Mission Drives
Johnna Stevenson, Ben McManus, Ph.D., Amanda Hudson, Ph.D., Piyush Pawar, William Russell, Andrea Underhill, Ph.D., Josh White, The University of Alabama; Thomas Anthony, Analytical AI; Victor Paul; Terry Tierney, U.S. Army DEVCOM GVSC; Despina Stavrinos, Ph.D., The University of Alabama

25215 Impact of Decision-Support Tools on Novice Workload in VR
Jin Hong Yu, Naval Postgraduate School; Charles Rowan Ph.D., Perry McDowell, NPS MOVES Institute; Amela Sadagic, Ph.D., Naval Postgraduate School; Jon Vogl, U.S. Army Aeromedical Research Laboratory; Ryan Lee, Naval Postgraduate School

25434 Operationalizing Persistent Augmented and Virtual Environments in Naval Aviation Maintenance
Michael Ashmore, MARCORSYSCOM, Amela Sadagic, Ph.D., Naval Postgraduate School; Jake Ramirez, NIWC Pacific; Kalvin Lam

HPAE4 WEDNESDAY, 3 DECEMBER • 1530 – 1700 • ROOM 320C

SASSY ASSESSMENTS WITH MULTI-MODAL MEASUREMENT

Session Chair:
Session Deputy:

25213 Assessing Virtual Reality Head-Mounted Display-Induced Cybersickness in Simulated Maritime Dynamic Environments
Ethan Williams, Naval Postgraduate School; Charles Rowan, Ph.D., Perry McDowell, NPS MOVES Institute; Jon Vogl, U.S. Army Aeromedical Research Laboratory

25282 Assessing Cognitive State Adaptations using Predictive Models
Stephen Gordon, Ph.D., DCS Corporation; Vernon Lawhern, Ph.D., Jonathan Touryan, Ph.D., DEVCOM Army Research Laboratory

25394 Human Factors and Neuroscience in Next-Generation Simulation Environments
LCDR Nicholas Armendariz, Ph.D., USN, Naval School of Aviation Safety; JJ Walcutt, Ph.D., DAF/A1; Christina Parker, Ed.D., AFSOC; Brittany Neilson, Ph.D., NAVAIR

HPAE5 THURSDAY, 4 DECEMBER • 0830 – 1000 • ROOM 320C

WORDS, WAVES, AND WANDERINGS: UNCONVENTIONAL MEASURES OF EFFECTIVE TEAMWORK

Session Chair:
Session Deputy:

25448 Can Dialogue Features Help Predict Team Performance?
Kallirroi Georgila, Ph.D., Carla Gordon, Anton Leuski, Ph.D., Ron Artstein, Ph.D., David Traum, Ph.D., USC Institute for Creative Technologies

25236 Improving Mission Performance and Readiness for Rapidly Composed Military Teams
Jonathan Sussman Fort, Ph.D., Joseph Cohn, Ph.D., Soar Technology, LLC; Eduardo Salas, Rice University, Ph.D.; Silke Dodel, Ph.D., Deep Science; Jeremiah Folsom-Kovarik, Ph.D., Jeffrey Craighead, Ph.D., Soar Technology, LLC; Maha Khalid, Lila Berger, Rice University; Nick Petroff, Soar Technology, LLC; Chris Berka, Advanced Brain Monitoring; Angela Woods, Daniel Wilson, Tanner Hilsabeck, Stephen Kline, Soar Technology, LLC; Ella Thunen, Advanced Brain Monitoring

25431 Enhancing Nurse Rounding Performance and Patient Satisfaction Using Real Time Location System
Shuxin Li, Alyssa Tanaka, Ph.D., Lucy Ha, AdventHealth

HPAE6 THURSDAY, DECEMBER 4 • 1030 – 1200 • ROOM 320C

COGNITION UNDER FIRE: TRAINING FOR CHAOS, DESIGNING FOR CLARITY

Session Chair:
Session Deputy:

25387 The Effects of Dichotic Listening in Unmanned Aircraft Systems (UAS) Pilot Efficiency
Bailey Miller, Autonomy Research Institute; Andres Castillo, Collin Scarince, Ph.D., Miguel Moreno, Ph.D., Texas A&M University-Corpus Christi; Tye Payne, Autonomy Research Institute

25427 Capital Gains: Leveraging Human-Centered COPs for More Effective Incident Management in DC and Beyond
Katelynn Kapalo, Ph.D., Stevens Institute of Technology; Timothy Hutchison, Office of the CTO, District of Columbia; Jeffrey Lenard, Thomas Chenworth, DC Fire and EMS Department

25453 Attention Control Predicts Operational Errors in Expeditionary Robotics Warfare Operators
Brandon Schrom, Naval Health Research Center; Alexander Burgoyne, Felix Wu, HumRRO; Joshua Sparks, Max Smith, Timothy Dunn, Naval Health Research Center

POLICY, STANDARDS, MANAGEMENT, AND ACQUISITION

PSMA1 TUESDAY, 2 DECEMBER • 1400 – 1500 • ROOM 320D

DIGITAL TWINS AND CULTURE: CAN YOU TELL THEM APART?

Session Chair:
Session Deputy:

25241 Building a Digital Engineering Culture
Lauren Sencio, Nicholas Adriaanse, Daniel Howard, Jr., NSWCDD-DNA

25312 Validating a Digital Twin Taxonomy for Defense: Enhancing Interoperability in Simulation and Digital Engineering
Robert Proctor, Jr., Real-Time Innovations (RTI); Patrick Buckley, Ph.D., Northrop Grumman

PSMA TUESDAY, 2 DECEMBER • 1600 – 1730 • ROOM 320D

TRAINING ME SOFTLY, WITH YOUR PROMPT...

Session Chair:
Session Deputy:

25403 Integrating Biometrics, Policy, and Data-Driven Training: Enhancing Military Readiness and Reducing Risk
LCDR Nicholas Armendariz, Ph.D., USN, Naval School of Aviation Safety; JJ Walcutt, Ph.D., DAF/A1; Jacob Westerberg, Ph.D., BUMED; Kristin Saling, HQDA G1

25111 Systems Engineering Automation Through Artificial Intelligence (AI) and Natural Language Processing (NLP)-Based Software
Xuan Chau, Brian Parrish, MITRE; Michael Cannizzaro, STE CFT

25333 Policy Considerations for Training Developed Using Generative AI
Lee Lacy, Ph.D., CMSP, Dawn Norman, Soar Technology, LLC

PSMA3 WEDNESDAY, 3 DECEMBER • 0830 – 1000 • ROOM 320D

TRAIN. TRACE. SUSTAIN.

Session Chair:
Session Deputy:

25319 Data Traceability for Complex, Distributed Live, Virtual, Constructive Simulation Events
Eric Tollefson, Ph.D., Jonathan Andrews, Michael O'Connor, Trideum Corporation; Tilghman Turner, U.S. Army Redstone Test Center

25363 Resilience of M&S Capabilities
Brian Vogt, NATO ACT; Jan Hodicky, Ph.D., NATO HQ SACT; Stephen Banks, Alberto De Paoli, Ph.D., Bugra Ayyildiz, Angel San Jose Martin, NATO ACT

25235 Changing the Training System Sustainment Paradigm with Product Support Analysis
Robert Briar, Brian Frech, Daniel Metzler, U.S. Army PEO STRI

PSMA4 WEDNESDAY, 3 DECEMBER • 1030 – 1200 • ROOM 320D

CTRL+ALT+DELETE: REBOOTING DEFENSE M&S STANDARDS FOR THE 21ST CENTURY

Session Chair:
Session Deputy:

25122 Aligning Flight Simulation Software with MOSA Standards
Hung Tran, CAE USA

25200 Stockholm Syndrome: Are We Being Held Captive by Our Ancient Interoperability Standards?
Simon Skinner, Thales Training and Simulation

25399 The Defense Standards Landscape for Digital Engineering, Modeling & Simulation
Scott Schutzmeister, Annie Patenaude, Institute for Defense Analyses

PSMA5 WEDNESDAY, 3 DECEMBER • 1330 – 1500 • ROOM 320D

FAST TRACK: ACCELERATING DEFENSE LEARNING AND ACQUISITION

Session Chair:
Session Deputy:

25116 Measuring Learning Technology Maturity in DoD Acquisition
Kevin Owens, Applied Research Laboratories: The University of Texas at Austin; Jeanine DeFalco, Ph.D., Mixta Re, Inc.; Christine Covas-Smith, Ph.D., AETC; Shawn Miller, DAU

25432 From Red Tape to Red Bows: Urgent Defense Acquisition Transformation
Dustin Ford, Kitty Hauk, GovCIO

25456 The DoD Learning Enclave (DLE) as an Enabler of Force-Level Decision-Making
Henry Phillips IV, Ph.D., Andy Johnson, ADL Initiative

SIMULATION

SIM1 TUESDAY, 2 DECEMBER • 1400 – 1530 • ROOM 320B

BE DAZZLED IN XR/VR

Session Chair:
Session Deputy:

25185 Simulating Aircrew Laser Dazzle in a Virtual Reality Environment
Sonny Ponce, Joseph Arizpe, Ph.D., Jake McKenna, Peter Smith, Ph.D., SAIC; Alan Ashworth, Ph.D., Christian Calimlim, RHDO

25109 XR-powered Remote Maintenance Support and Training for Naval Shipyards
Deepak Haste, Michael Renda, Sudipto Ghoshal, Ph.D., Qualtech Systems, Inc.; Corey Countryman, NAVSEA Undersea Warfare Center; Deniz Ferrin, Technology Insertion and Innovation Lab

25324 Overcoming Challenges of Integrating Heterogeneous Commercial and Open-Source Tools in Extended Reality Applications
Kexin Wang, Eliot Winer, Ph.D., Iowa State University

SIM2 TUESDAY, 2 DECEMBER • 1600 – 1730 • ROOM 320B

REALITY & ABSTRACTION IN MODERN SIMULATION

Session Chair:
Session Deputy:

25155 Advancing Multi-Agent Autonomy: Challenges and Solutions in LVC Simulation Testbeds
Akhil Nagariya, Ph.D., Alvika Gautam, Srikanth Saripalli, Ph.D., Texas A&M University; Henry Reimert, Kristin Schaefer, Ph.D., DEVCOM Army Research Laboratory; Joshua Wickwire, Parsons Corporation

25168 Bridging Pre-Training and Simulation: Enhancing AI Performance with Unity ML-Agents
Sarah Kitchen, Ph.D., Anthony Chavez, Reid Sawtell, Michigan Tech Research Institute; Tim Aris, U.S. Army DEVCOM SC STTC

25139 Use of Simulation to train AI for Swarm Based Underwater Behavior – Lessons Learned from Talisman Sabre 2025
Peter Drewes, Ph.D., SAIC

SIM3 WEDNESDAY, 3 DECEMBER • 0830 – 1000 • ROOM 320B

CYBER INTEGRATION FOR M&S

Session Chair:
Session Deputy:

25145 Providing Asymmetric Information Advantage and Cyber Multidomain Operations Training Capabilities
Bruce Gorski, Brian Parrish, Jared Arslanian, MITRE; James Geddes, Bryan Long, Jr., Patrick Hart, U.S. Army DEVCOM SC STTC

25275 Integrating Existing Cyber Ranges and Cyber Tools into LVC Simulations
Jean Paul Dingemanse, Frank Drop, Marieke Klaver, Veronique Marquis, TNO; Bert Boltjes, Defence Cyber Command

25354 Challenges and Solutions in Using Virtual Testbeds to Study Hackers
Sean Guarino, David Kelle, Curtis Wu, Charles River Analytics; Max Slocum, Michael Sieffert, Assured Information Security; Michelle Neisser, SimSpace

SIM4 WEDNESDAY, 3 DECEMBER • 1030 – 1200 • ROOM 320B

DIGITIZING A PRINTABLE PLANET

Session Chair:
Session Deputy:

25226 Transforming Terrain Databases into Battlefield Environments Using Compile-Time Dynamics
Remco van der Meer, Ewan Demeur, Ruben Smelik, Ph.D., TNO

25257 Virtual Environment for Aerospace Simulation and AI Data: Focused on Automatic Building Generation
Mungi Kim, Youngjun Sim, Dahyoung Jeon, SIM2REAL

SIM5 WEDNESDAY, 3 DECEMBER • 1330 – 1500 • ROOM 320B

IT'S ALL ABOUT RF

Session Chair:
Session Deputy:

25160 A Million Points of RF - Enabling High Fidelity Interactions in the Synthetic Space
Scott Burdick, Jacob Miracle, AFSC/SWX; Douglas Hodson, Ph.D., Air Force Institute of Technology

25266 RF Digital Twins Demand for Digital Threats, Challenges and Solutions
Romolo Gordini, Luca Di Ianni, Riccardo Dal Borgo, Miriam Chisari, Alessandro Moro, Leonardo Spa

25345 Multi-physics SAR Simulation for Correlated Radar Imaging in Synthetic Environments
Kyle Morris, Radu Visina, Ph.D., Information Systems Laboratories; Brett Chladny, Ross Uhler, MAK Technologies

SIM6 WEDNESDAY, 3 DECEMBER • 1530 – 1700 • ROOM 320B

SIMULATION PLATFORMS & INTEROPERABILITY ARCHITECTURES

Session Chair:
Session Deputy:

25144 Integrating DIS V8, Challenges and Opportunities
Lance Call, AFRL/CAE; Dean Lewandowski, CAE USA

25271 Achieving Distributed Training Through MSaaS: Results and Insights
Andreas Krupp, Benjamin Labas, Mate Koch, CAE GmbH; Jay Freeman, David Bisaccia, CAE USA

25218 Simulator of Theseus: Substituting parts for a Memory Safe Simulator
Jonathan Mitchell, Kerryn Spanhel, Thales

SIM7 WEDNESDAY, 3 DECEMBER • 1530 – 1700 • ROOM 320D

SIM TECH FUSION

Session Chair:
Session Deputy:

25376 Simulator Environment Configuration for Integrated Threat Response and Evasive Maneuvers of Aircraft
Younhyuck Chang, Kiyoung Lee, JaeSik Oh, MOA Software; Younggun Lee, Ph.D., Seunghoon Yoo, Joonha Jang, Republic of Korea Air Force Academy

25225 Mission Possible: Dead Reckoning with Artificial Intelligence
Thomas McRobie, Thales Training & Simulation

25350 Point-of-Need Joint Integrated Air and Missile Defense LVC Training Solutions
Joseph McAlexander IV, Matt Martin, CAE USA

SIM8 THURSDAY, 4 DECEMBER • 0830 – 1000 • ROOM 320B

BUILDING SMARTER SYSTEMS

Session Chair:
Session Deputy:

25393 Incorporation of Automated Cyber Adversaries to Improve Cyber-Kinetic Training
Omar Hasan, Ph.D., Derek Crane, Jeremy Richarde, Dignitas Technologies; James Geddes, U.S. Army DEVCOM SC STTC; Jason Strauss, U.S. DEVCOM SC

25220 Optimizing Defense AI with Simulation-Driven CI/CD
Victoria Dorn, Andres Ulloa, Anastacia MacAllister, Ph.D., General Atomics Aeronautical Systems, Inc.

25287 A Scalable Open-Source Simulation Framework for Neuroevolution and Multi-Agent Behavior Research
Jackson Salyards, Jackson Baker, Colton Underwood, Adrian Quintero, Kai Sniadach, Mustafa Akbas, Ph.D., Embry-Riddle Aeronautical University

SIM9 THURSDAY, 4 DECEMBER • 1030 – 1200 • ROOM 320B

FROM SIMULATION TO DEPLOYMENT: AI & NETWORK INNOVATIONS IN DEFENSE

Session Chair:
Session Deputy:

25265 Context-Aware Human Performance Measurement for Simulation-based Tactical Training
Joost van Oijen, Ph.D., Thomas Bellucci, Maxim van Oldenbeek, Royal Netherlands Aerospace Centre

25349 Training and Evaluating Machine Learning Models using XR Simulated Data for Autonomous Vehicle Control in Real-Time Simulated Traffic
Adam Kohl, Eliot Winer, Ph.D., Iowa State University

25458 Evaluation of Time Sensitive Networks (TSN) for use in Army Aviation platforms
Brijesh Patel, Jimmy Moore, PeopleTec; Jonathan Hardy, IronMountain Solutions; Brett Boren, U.S. Army Redstone Test Center

TRAINING

TRN1 TUESDAY, 2 DECEMBER • 1400 – 1530 • ROOM 320F

TRAINING BEYOND THE RANGE

Session Chair:
Session Deputy:

25351 Beyond the Range: Merging Simulation and Reality
Emilie Reitz, Joint Staff, J6; Sammie Jansen, RNLA; Michael Taylor, JS J6; Justin Wright, Huntington Ingalls Industries

25334 Advancing Squad Performance Analytics and Team Training with Multimodal Data in STEEL-R
Randall Spain, Ph.D., U.S. Army DEVCOM SC; Benjamin Goldberg, Ph.D., U.S. Army DEVCOM SC STTC; Lisa Townsend, U.S. Army DEVCOM SC; Grace Teo, Ph.D., Quantum Improvements Consulting; Meghan O'Donovan, Clifford Hancock, U.S. Army DEVCOM

25382 Building Readiness: A Competency-Based Framework for Military Medical Training in U.S. Marine Corps Exercises
Aaron Presnall, Ph.D., Biljana Presnall, Jefferson Institute; Benjamin Goldberg, Ph.D., U.S. Army DEVCOM SC STTC; Gary McDougall, 2d Marine Logistics Group

TRN2 TUESDAY, 2 DECEMBER • 1600 – 1730 • ROOM 320F

EXAMINING HUMAN PERFORMANCE IN TRAINING

Session Chair:
Session Deputy:

25328 Optimizing Soldier Performance Through Coaching: A Framework for Stress Intervention Research
Paige Lawton, Ph.D., U.S. Army DEVCOM SC STTC; Randall Spain, Ph.D., U.S. Army DEVCOM SC; Benjamin Goldberg, Ph.D., U.S. Army DEVCOM SC STTC

25181 A Perspective on Training and Education for Space Domain Awareness in Military Space Operations
Simone Caso, Ph.D., Netherlands Aerospace Centre

25254 Cognitive Load-Based Curriculum Adaption in Human-Machine Team Training Scenarios
Gary Eves, Ph.D., CAE; Alex McConville, Ph.D., Nadine Marcus, Ph.D., UNSW; Hussein Abbass, Ph.D., UNSW Canberra; Brian Stensrud, Ph.D., CAE

TRN3 WEDNESDAY, 3 DECEMBER • 0830 – 1000 • ROOM 320F

TRAINING STRATEGIES

Session Chair:
Session Deputy:

25193 Integrating Skill Attainment and Enterprise Modeling into Optimal Training Event Scheduling
Eric Haney, Ph.D., Ryne Spears, Robert Harrill, Lone Star Analysis

25258 'Airmanship' on the Radar: Military Aircrew Instructors' Perceptions of Non-Technical Skill Assessment Methods, Training Strategies and Standards
Jonathan Allsop, Ph.D., RAF Central Flying School; Robert Hurcomb, Royal Air Force

25192 A Data-Centric Approach for Extracting Flight Maneuvers from Pilot Training Time Series Data
Eric Haney, Ph.D., Ethan Cramer, Lone Star Analysis; Samantha Emerson, Ph.D., Mark Schroeder-Strong, Aptima, Inc.

TRN4 WEDNESDAY, 3 DECEMBER • 1030 – 1200 • ROOM 320F

OF PAPER AND PIXELS: ADVANCING TRAINING AT ALL FIDELITIES

Session Chair:
Session Deputy:

25131 Comparing Input Modalities in Extended Reality for a Virtual Learning/Training Task
Stephanie Fussell, Ph.D., Aptima, Inc.; Quintin Oliver, AFRL; Tyler Frost, AFRL GRILL; Summer Rebensky, Ph.D., Samantha Perry, Aptima, Inc.; Benjamin Kwasa, Ph.D., Kent State University; Stephen McGee, AFRL

25201 Advancing Police Training Through Virtual Simulation: Lessons from Dubai Police
Mansoor Alrazooqi, Ph.D., Dubai Police

25217 Can Low Fidelity Tabletop Games be used to Improve Teamwork?
Joan Johnston, Ph.D., Alaka'ina Foundation; Grant Johnston, Student; Lisa Townsend, U.S. Army DEVCOM SC; Jerry Mize, U.S. Army DEVCOM SC STTC; Tami Griffith, Ph.D., Defense Equal Opportunity Management Institute; Chuck Wainman, SAIC; Alexandra Lutz, Dignitas Technologies

TRN5 WEDNESDAY, 3 DECEMBER • 1330 – 1500 • ROOM 320F

NOVEL STRATEGIES: ELEVATE PERFORMANCE AND CREATE TRAINING PROCESS EFFICIENCIES

Session Chair:
Session Deputy:

25318 Advancing Usability Training: A Methodology for Rapid Development of Usability Competencies Using an AI-driven Knowledge Repository
Nicole Dorey, Ph.D., William Rivera, Design Interactive, LLC

25147 Are Training Models and Simulations Credible? A Straightforward Method for Answering that Question
Vincent Welsh, Jr., Dave Turner, SURVICE Engineering Company

25309 Find Waste, Improve Quality and Deliver Better Training
Mike Thorpe, Loretta Koennicke, Serco, Inc.

HAVE QUESTIONS? ASK BLU!
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OR
SCAN THE QR CODE! →

PROFESSIONAL DEVELOPMENT WORKSHOPS

THURSDAY, 4 DECEMBER 2025 — PROFESSIONAL DEVELOPMENT WORKSHOPS

LOCATION:	Orange County Convention Center, South Concourse, note room assignments below.
DATE & TIME:	Thursday, 4 December • 1300 – 1600
WHO MAY ATTEND?	All registrants of I/ITSEC are welcome to attend – I/ITSEC badge is required for entry.
FEES:	There is no fee for I/ITSEC Conference Registrants/Exhibitors – I/ITSEC badge required for entry.
CEU/CLP:	Paid I/ITSEC Conference registrants are eligible to receive CEU/CLP credits. If not a paid attendee, a $50 fee will be charged only if you wish to receive the CEU credits.
REGISTRATION:	Registration for individual workshops is not required. Workshops fill on a first-come, first-serve basis. Please arrive early for topics that interest you the most — **seating is limited**. If you wish to receive CEU credits, be sure to request CEUs during your conference registration. You may update your registration to include CEUs at any time at **www.IITSEC.org/Attend/Registration-Fees**
LUNCH:	On own

THURSDAY, 4 DECEMBER • 1300 – 1600 • PDW1 • ROOM 331A

LEVERAGING AI-ENHANCED CODING TOOLS TO RAPIDLY CREATE & DEPLOY WEB APPLICATIONS FOR NAVAL TRAINING

25W1

Presenters: Josh Hawthorne and Albert Chou

In the rapidly evolving domain of military training and readiness, leveraging artificial intelligence and modern web technologies presents an opportunity to optimize training methodologies.

This half-day workshop will provide an in-depth exploration of how AI-assisted coding tools, database integrations (Supabase and Firebase), and static page deployments with a GitHub repository and Cloudflare Pages can be harnessed to develop and deploy scalable, interactive web applications tailored for naval training.

Attendees will gain insights into our process, challenges encountered, and lessons learned in developing AI-enhanced training solutions. This hands-on session will engage participants in designing and deploying prototype web applications, fostering collaboration and discussion on how these technologies can be leveraged for training optimization.

THURSDAY, 4 DECEMBER • 1300 – 1600 • PDW2 • ROOM 331C

SERIOUS GAME DESIGN WORKSHOP

25W2

Presenters: Radhakishan Shetty, Vance Souders, and Seth Crofton

During this workshop, participants will be introduced to key concepts, steps, and processes involved in designing a game for learning. Through hands-on activities and working together in groups, participants will work through the initial phases of the design process. Participants will identify a topic, audience, training requirements and learning objectives, creating an effective narrative, determining instructional and gaming strategies, designing key game mechanics, and choosing the appropriate delivery technology. Presenters will facilitate the groups and give examples from past experiences and provide examples from the Serious Game Showcase and Challenge.

THURSDAY, 4 DECEMBER • 1300 – 1600 • PDW2 • ROOM 230H

FOUNDATIONS OF ARTIFICIAL INTELLIGENCE IN TRAINING AND SIMULATION

25W4

Presenters: Brice Colby, Ph.D., Morgan Ulinski, Ph.D., Elaine Choy, Robert Sottilare, Ph.D., and Daniel Wilson

AI is revolutionizing training and simulation – but how do you move from theory to hands-on implementation? If you've ever wondered how to effectively integrate AI into your training programs or which tools to use for different learning challenges, this workshop is your bridge from uncertainty to expertise.

In this hands-on session, you'll ditch the abstract talk and dive into real-world AI applications. Using tools like Kaggle Notebooks and NotebookLM, you'll be guided through experiments with real models, explore AI-driven training, and develop the skills to confidently say: "Given my training goal, I know which AI tools and methods to use."

The interactive exercises and guided practice will help you learn how to:

- Identify the right AI techniques for different training goals
- Leverage AI models to classify behaviors, predict outcomes, and adapt training
- Understand data science's role in AI decision-making - and how to build trust in AI-driven training

No coding backgorund? No problem. This workshop is designed for anybody and everybody who needs practical AI knowledge, not just theory. By the end, you'll walk away as the go-to expert, ready to guide your team in applying AI for smarter, more adaptive training solutions.

Are you ready to bridge the gap betwen AI's potential and real-world impact? Join us and make AI work for you!

THURSDAY, 4 DECEMBER • 1300 – 1600 • PDW5 • ROOM 331D

ADDITIVE MANUFACTURING IN ACTION — A HANDS-ON WORKSHOP FOR ACQUISITION, SUSTAINMENT, AND STRATEGIC ADVANTAGE

25W5

Presenter: Daniel Eggler, Ph.D.

This workshop is derived from the Additive Manufacturing for Defense Applications course offered by the Eggler Institute of Technology. Attendees will gain a comprehensive understanding of how additive manufacturing enhances supply chain resilience, enables on-demand part production, and supports cost-effective maintenance strategies. By engaging in hands-on activities and case studies, they will develop a deeper appreciation of AM's

critical role in Defense and military operations, particularly in rapid prototyping, battlefield sustainment, and mission adaptability. This holistic approach will allow participants to see firsthand how AM addresses logistical challenges and operational constraints within the defense sector.

The session will begin with a short presentation highlighting the advantages and challenges AM presents to Defense, including a high-level overview of the different AM technologies of interest to the defense sector. This will be followed by a demonstration of slicing software, illustrating key steps in preparing a model for 3D printing.

Attendees will rotate between two core stations during the workshop:

- Additive Mindset – Exploring how design philosophy, engineering assumptions, and broader considerations such as logistics, operational constraints, and tactical deployment must adapt when working with AM.
- Hands-on Explore – This station has participants getting hands-on with 3D printed parts and allows them the opportunity to visually inspect, remove support structures, and test material properties, among other practical tasks.

In addition, a 3D printing demonstration area will be available where participants can initiate prints from a selection of pre-loaded models and observe the process up close. Each print will take approximately 10–15 minutes. While not all attendees may have the opportunity to print, the ability to engage directly or observe the process still provides meaningful educational value. A key learning outcome includes recognizing the significance of support structures, which often introduce trade-offs absent in conventional manufacturing methods.

THURSDAY, 4 DECEMBER • 1300 – 1600 • PDW7 • ROOM 331B

NAVIGATING THE EVOLVING LANDSCAPE OF DISTRIBUTED SIMULATION — HARNESSING DDS FOR SECURE AND MOSA — COMPLIANT LVC TRAINING

25W7

Presenters: Robert Proctor, Jr. , David Whitten, and Andre Odermatt

As defense training and simulation shift toward open, modular, and secure architectures, understanding the role of the Object Management Group (OMG) Data Distribution Service (DDS) standard is essential. DDS is the premier real-time data distribution middleware and is now recognized as a critical enabler for the DoD's Modular Open Systems Approach (MOSA). With DDS's real-time, scalable, and secure interoperability, distributed LVC simulation systems can seamlessly integrate across multi-domain training environments while meeting stringent multi-level security (MLS) requirements.

This interactive workshop will provide attendees with hands-on experience in developing, securing, and optimizing distributed simulation environments using DDS. Participants will:

- Gain an in-depth understanding of DDS fundamentals and its role in MOSA-compliant, real-time data sharing across LVC simulations.
- Explore DDS Secure's MLS capabilities, including authentication, access control, data encryption, and integrity verification, and understand how it provides fine-grained data protection across classified and unclassified domains.
- Discover how DDS enables seamless interoperability with traditional simulation architectures (HLA, DIS, TENA, CTIA) and supports real-time integration with game engines, hardware-in-the-loop (HIL), and cloud-based training solutions.
- Learn strategies to optimize DDS performance, leveraging advanced Quality of Service (QoS) policies and WAN transport capabilities for secure, high-performance distributed training over Tactical Data Links (TDL), RF, and 5G networks.
- Participate in hands-on exercises to configure, deploy, and troubleshoot DDS-based distributed simulation environments.

By the end of the workshop, attendees will have gained the knowledge and skills necessary to design, develop, and deploy secure and scalable DDS-powered distributed simulators, positioning themselves at the forefront of next-generation defense training solutions.

THURSDAY, 4 DECEMBER • 1300 – 1600 • PDW9 • ROOM 230G

CERTIFIED M&S PROFESSIONAL 3.0 — REINVENTION!

25W9

Presenter: Ivar Oswalt, Ph.D.

The Certified Modeling and Simulation Profession (CMSP) certification program has been reinvented and reintroduced to the M&S community as CMSP 3.0. The certification's application process has been streamlined, the examination updated, and an approach to ensure readily available reference material developed, amongst many other additional improvements. This proposal is to conduct a CMSP 3.0 Professional Development Workshop. This three-hour session will describe the requirements needed to achieve this valuable certification. It will cover the updated application and examination processes including education, work experience, and reference requirements for the Intern, Apprentice, Practitioner, and Master Levels; application processes; how the exam is administered and scored; and the role of continuing education in certificate renewal. It will also provide an overview of the fundamental M&S topics covered in the exams and include several relevant simulation videos.

THURSDAY, 4 DECEMBER • 1300 – 1600 • PDW11 • ROOM 330EF

STARSHIP BRIDGE SIMULATIONS AS A SERIOUS GAME FOR TEAM DEVELOPMENT

25W11

Presenters: James Benslay, Jr. and David Hernly

The Starship Bridge Simulation (SBS) workshop offers a unique and immersive approach to team development through serious gaming. In today's complex operational environments, leaders must develop agile teams capable of solving dynamic problems through effective communication and critical analysis. This workshop provides participants with hands-on experience in a creative, engaging leadership laboratory environment that fosters these essential skills.

Participants will be organized into 6-person starship bridge crews, with each member assuming a specialized role: Captain, Navigation, Weapons, Communications, Science, or Engineering. Each role operates from a dedicated console with position-specific interfaces and responsibilities. The simulation requires crews to collaborate effectively, make rapid decisions under pressure, and adapt to changing circumstances—mirroring the challenges faced by high-performing teams in real-world scenarios.

During this interactive workshop, participants will:

- Learn the foundational concepts behind using SBS as a serious game for team development
- Understand the mechanics and educational value of the simulation platform
- Explore various software options available for implementing SBS training
- Receive hands-on experience with specialized console operations

- Participate in two multi-ship, multi-crew simulation scenarios
- Engage in structured, facilitated After-Action Reviews to analyze team performance

The first scenario serves as an orientation exercise, while the second provides a more complex challenge requiring focused teamwork to solve. Workshop participants can volunteer as crew members, assist as evaluators, support the simulation staff, or observe the proceedings.

Whether you're an experienced simulation professional or new to serious gaming applications, this workshop offers valuable insights into innovative approaches to leadership and team development. Please visit our workshop website for console overview guides, mission scenario information, and additional resources to enhance your workshop experience.

https://sites.google.com/view/sbs-workshop-at-iitsec/home

TinyURL: https://tinyurl.com/3dtcmefd

Don't miss out on this exciting journey into the final frontier of team development!

THURSDAY, 4 DECEMBER • 1300 – 1600 • PDW12 • ROOM 210C

DISRUPT, DESIGN, DEPLOY: A HUMAN CENTERED APPROACH TO LEARNING AND DEVELOPMENT

25W12

Presenters: Sydney Heimbrock, Ph.D. and Cydney Miller

Back by popular demand! The I/ITSEC PDW on Human Centered Design has become a highlight of the conference experience, with participants calling it "the best experience of the week." This workshop is for learning professionals tasked with understanding "who" an organization is teaching, and "what" the learning must deliver, in order to design the "how" of learning experiences. Because humans are at the center of this challenge, the methods and tools of human centered design are critical for effective learning design, development and delivery. This workshop gives participants an immersive experience in Human Centered Design (HCD) for Learning and Development. In an action-learning format, participants will learn and practice HCD by applying the framework, methods and tools to a real government learning experience use case. For each phase of the HCD process, facilitators will present the principles, methods and tools, then support participant small groups to apply them in the room to design the future of learning in their organizations. In addition to solving a real world learning challenge, participants will explore how to apply HCD to digital learning ecosystems through automated qualitative data collection and analysis. Participants will leave the workshop educated, inspired and equipped to apply a human centered approach to their learning design, delivery, and evaluation strategies.

THURSDAY, 4 DECEMBER • 1300 – 1600 • PDW13 • ROOM 210B

NEUROSCIENCE TECHNIQUES TO ACCELERATE AND ENHANCE TRAINING THROUGH PERSONALIZATION: A FOCUS ON EEG, FNIRS, AND EYE TRACKING BIOMETRICS

25W13

Presenters: Jonathan Drucker, Ph.D. and Marisa Biondi, Ph.D.

Training - across domains - is more effective and more efficient when the content and pace are personalized to the individual learner. Neurphysiological measures provide objective, actionable insights into the dynamic cognitive and emotional processes underlying the acquisition of complex knowledge and skills. For example, failure on a task may reflect underdeveloped skills (i.e., the trainee needs more instruction or practice at the current level), or it may reflect an attentional lapse due to boredom (i.e., the trainee needs a new challenge) or stress (i.e., the trainee needs to take a break). These scenarios require vastly different approaches, but are indistinguishable with performance data alone. Biometrics that track attention, stress, workload, effort, and so on, can enable instructors to respond appropriately in the moment or during adter-action review. Recent advances in wearable neurotechnology and data science have moved these ideas from the laboratory into the field: it is now not only possible but practical to collect biometric data, even in challenging environments, to enhance and accelerate training.

Led by Dr. Jonathan Drucker (ANT Neuro) and Dr. Marisa Biondi (eye tracking consultant), this tutorial will focus on data collection and analysis for three neurophysiological methods: electroencephalography (EEG), functional near-infrared spectroscopy (fNIRS), and eye tracking (ET). Acquired simultaneously, these three modalities paint a robust picture of the current mental, affective, and attentional state of the trainee. Participants will learn relevant fundamentals of biology and sensor technology, followed by a hands-on session with sophisticated neurotechnology (high-density EEG, fNIRS, and wearable eye tracking glasses). Together, instructors and participants will collect real data as volunteers perform an operationally relevant training task. We will demonstrate analysis techniques using both professional and open-source tools, and discuss how the results can be leveraged in training and into the career field.

THURSDAY, 4 DECEMBER • 1300 – 1600 • PDW15 • ROOM 320H

ADVANCING COUNTER-EXPLOSIVE ORDNANCE (EO) TRAINING WITH IMMERSIVE TECHNOLOGY — A HANDS-ON WORKSHOP

25W15

Presenter: Bill Sowry

The evolving threat landscape demands effective, scalable, and safe training solutions for Counter-Explosive Ordnance (EO) and explosive hazard awareness. Traditional live training exercises come with significant logistical challenges, costs, and safety risks.

Immersive training is redefining how military and humanitarian personnel prepare for mine clearance, route clearance, and explosive hazard detection. Leveraging the latest developments in haptics, VR and AR, this workshop demonstrates the latest in immersive training technology to prepare personnel for high-value live training exercises and real-life deployment.

This interactive, hands-on workshop will be led by retired Brigadier Bill Sowry, Chair in Defence Innovation in a leading Australian university, who will take participants through a real-time, immersive counter-EO training scenario, from the initial sweeping techniques to explosive hazard identification and after action review.

Attendees will experience first-hand how real-time performance analytics, and VR-based situational awareness contribute to a safer, more effective training experience. The session will conclude with a data-informed After-Action Review (AAR), demonstrating how cloud-based learning performance and analytics can offer real-time insights into trainee performance for continuous improvement.

Participants will leave with an understanding of the benefits of immersive counter-EO training, including cost savings, increased cognitive retention, enhanced situational awareness, and flexible, year-round training opportunities, all while minimizing logistical burdens and environmental impact.

EcosySTEM OF LEARNING
AT I/ITSEC

The EcosySTEM of Learning (EoL) focuses on strategically and tactically building interest and educational momentum through a wide breadth of Science, Technology, Engineering and Mathematics (STEM) initiatives. The EoL mission is to establish, nourish, and maintain a solid foundation for launching future leaders and fostering the future workforce.

Designed for agility and diversity, the EoL is built upon four major cornerstones. Each cornerstone is comprised of initiatives which provide impactful substance to the EoL architecture and to those who engage.

OUTREACH
ENCOUNTERS THROUGH OBSERVATION, INTERACTION, AND IMMERSION.

- Student Tours
- Interaction with STEM focused organizations
- Path for year round engagement opportunities

DISCOVERY DEN
PLATFORMS PROMOTING PRESENTATION SKILLS AND SHARING OF SUBJECT MATTER EXPERTISE.

- Informative Exhibits
- Serious Games Showcase & Challenge
- Presentation Theatre

FOCUSED WORKSHOPS
CURRICULUM THROUGH CLASSES, SHORT COURSES, SEMINARS, AND MORE.

- Teacher Focused
- Student Focused
- Workforce Development

CAREER INVESTMENT
ADVANCEMENTS WITH LONG TERM PROFESSIONAL GOALS IN MIND.

- Tutorials
- Professional Development Workshops
- Scholarship Program
- Career Fair
- Continuing Education Units (CEUs)
- University Collaboration

EcosySTEM OF LEARNING BOOTHS **2383 – 2594**

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NTSA EcosySTEM OF LEARNING AT I/ITSEC

Launching Future Leaders

Fostering the Future Workforce

NTSA recognizes the need to maintain a strong workforce to enable the growth and development of the modeling, simulation, and training (MS&T) industry. Doing so requires strong, productive Science, Technology, Engineering and Mathematics (STEM) programs that are impactful to all phases of learning: absorption, nurturing, practicing. Disciplines applicable to current, emerging, and future requirements of MS&T are experienced through observation, interaction, and immersion.

NTSA enables a significant multidimensional STEM program platform which offers many opportunities at I/ITSEC and throughout the year. Initiatives are tailored to support (1) self-motivated learners that prefer independent learning, (2) friendly competitions, and (3) peer collaboration.

The EcosySTEM for Learning provides both physical and virtual platforms for global participation by students, teachers, and industry professionals. Experiences include observation, interaction, and situation immersion which tax the human sensory systems — which then becomes knowledge driven by curiosity and ambition.

At I/ITSEC, the EcosySTEM of Learning demonstrates applications of DoD technology through education initiatives, sample national initiatives highlighting military/community partnerships in education, benchmark outreach programs by companies to support education, undergraduate, graduate. and post graduate opportunities in STEM to support the future workforce. The program continues to adapt and incorporate the latest sciences and technologies into the many initiatives fostered with the ecosystem.

2024

EcosySTEM OF LEARNING SCHEDULE

MONDAY, 2 DECEMBER

ROOM 331D
0800 – 1700 K-12 Teacher Training

TUESDAY, 3 DECEMBER

ROOM 331C
0800 – 1700 STARBASE Teacher Training

ROOM 331D
0800 – 1700 K-12 Teacher Training

WEDNESDAY, 4 DECEMBER

ROOM 331C
0800 – 1700 STARBASE Teacher Training

ROOM 331D
0800 – 1700 Problem Challenge

BOOTH 2395
1400 – 1530 Value Proposition of STEM

BOOTH 2395
1530 – 1630 Problem Challenge Awards

THURSDAY, 5 DECEMBER

ROOM 331C
0900 – 1000 Career Panel

BOOTH 2909
1300 Serious Games Showcase & Challenge Awards Ceremony

THROUGHOUT THE CONFERENCE
BOOTH 2285 Serious Games Showcase & Challenge

VISIT THE INFO DESK IN BOOTH 2484 FOR THE LATEST EOL LINEUP.

TEACHER FOCUSED: Teachers inspire and educate the modeling and simulation community's future professionals. Educator training, mentorship, and experiential opportunities support development and community engagement.

STUDENT FOCUSED: Programming is comprised of live, online, and on-demand opportunities for students to share their own experiences, to learn about what others are doing, and to interact with professionals.

WORKFORCE DEVELOPMENT: Building upon networks and relationships, today's workforce continues to thrive through life-long learning.

I/ITSEC ECOSYSTEM OF LEARNING PAVILION 2024 • CENTRAL FLORIDA STEM EDUCATION COUNCIL & I/ITSEC STEM COMMITTEE

Exhibiting STEM Organizations
Returning this year to the STEM exhibit area are the following organizations:
- Team Orlando STEM represented by
- NAWCTSD STEM
- AFRL GRILL (Gaming Research Integration for Learning Lab)
- DoD STARBASE
- FIRST Robotics
- University of Central Florida STEM Aviation Showcase
- Astronaut Scholarship Foundation
- Larson Motorsports

Discovery Den Presentations
The stage area of the Discovery Den will offer a full schedule of presentations showcasing various aspects of the STEM pipeline.
- Presentations by each exhibiting STEM organization in collaboration with one of their industry partners showcasing the value to industry of being involved with STEM education organizations
- Presentations by NTSA university members spotlighting their areas of research and academic programs relevant to MS&T
- A Special Event organized by USMC PM TRASYS on the "Value Proposition of STEM in Acquisition Talent Management" and featuring speakers from the Army, Navy, Air Force, and Marine Corps
- Presentations by student teams participating in the Problem Solving Workshop

Student Poster Session
This year, we are partnering with Shenandoah University Center for Immersive Learning to host a group of students in the AR/VR degree program. The students will present their program and host either a poster session or demonstrations of their immersive reality projects. Based on the response and feedback to this pilot effort, other universities will be invited to participate in the coming years.

EcosySTEM of Learning Information Desk
Front and center in the Discovery Den will be the Information Desk again this year providing the following:
- Assistance connecting visitors to the exhibiting STEM organizations
- Information about the Career Fair and CMSP program
- Promotion of the presentations
- Reminders to attendees to cast their Serious Games vote

Sponsorships
In addition to the funding provided annually by the Central Florida STEM Education Council to pay for power to the STEM organization booths in the Pavilion, part of a donation UCF by KBR is targeted to be used to cover STEM Pavilion costs as well (audio equipment, power, etc.).

WEDNESDAY, 3 DECEMBER • 1300 – 1600 • ROOM 210A

NTSA CAREER FAIR AT I/ITSEC

Job opportunities are on the rise for the defense industry – leading the way for developing cutting-edge solutions. The career fair welcomes you to be part of the fast-growing Simulation and Training community.

Meet with industry and government organizations with opportunities for new graduates and transitioning professionals at the NTSA Career Fair at I/ITSEC.

This event provides:
- An opportunity to learn more about open jobs available from government and industry partners
- Networking for businesses with subcontracting needs
- A space to learn about the government's perspective and process
- An environment to grow your network

See the Career Fair website at IITSEC.org/CareerFair for registration information. I/ITSEC attendees do not need to register to attend the Career Fair. Participating organizations will be added to the website as they are confirmed; please visit IITSEC.org/CareerFair for the most up-to-date information. If you have any questions while onsite, please visit the Career Fair on Wednesday, 3 December in Room 210A.

PARTICIPATING ORGANIZATIONS ARE LISTED ONLINE AT
IITSEC.org/CareerFair and onsite at the Discovery Den Info Desk in Booth 2395.

FINALIST GAMES
BOOTH 2285

SERIOUS GAMES
SHOWCASE & CHALLENGE

Since 2006, the Serious Games Showcase and Challenge (SGS&C) has been bringing awareness of the impact that games have on personnel development. SGS&C provides annual best-in-class exemplars in a showcase of learning games submitted by businesses, students, and government organizations competing for prestigious awards.

The SGS&C invites you to Booth 2285 to play this year's finalist games, immerse yourself in exciting learning experiences, meet the developers, and cast your People's Choice Award vote.

Visit the SGS&C at Booth 2285

Learn how games could play in your learning solutions! Join the SGS&C finalists and organizing team in our casual and interactive setting to discuss and experience serious games first hand.

Play the games and cast your vote

The People's Choice Award is based on votes from attendees like you. Your I/ITSEC badge includes your ballot.

Be sure to play the games and vote by 1800 on Wednesday, December 4th!

2024

Hear the SGS&C awards announced live

Join us *Thursday, December 5th at 1300* in the Innovation Showcase (Booth 2909) for the Awards Ceremony announcing:

- Best General Audience Serious Game
- Best Government Audience Serious Game
- Best Student-developed Serious Game
- Serious Game Innovation Award
- Students' Choice Award
- People's Choice Award

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For more information: sgschallenge@gmail.com or **Jenn McNamara:** jmcnamara@breakawaygames.com

35th ANNUAL RADM FRED LEWIS POSTGRADUATE SCHOLARSHIP RECIPIENTS

The Annual **RADM Fred Lewis I/ITSEC Postgraduate Scholarships** are offered to stimulate student interest and university participation in preparing individuals for leadership in the Modeling & Simulation, Training, and Education communities. RADM Fred Lewis served as the NTSA President from 1995 – 2012 and initiated important core programs to identify and credential a professional workforce and established educational programs to stimulate interest in M&S careers at all grade levels. RADM Lewis knew by investing in our future workforce, these scholarships will encourage expansion of the I/ITSEC community and promote innovation through direct investment in our community's future leaders.

Jane Apostol
University of Central Florida
Interactive Entertainment

Yazmin Diaz
University of Central Florida
Human Factors

Michael Holm
Purdue University
Engineering

Maia Rohmer
Wright State University
Human Factors

Jarean Carson
Wright State University
Human Factors

Gabriela Flores-Cruz
University of Central Florida
Human Factors

Rose Kiriazes
University of Florida
Engineering

Natalie Roth
Florida Southern College
Human Factors

Tara Delgado
University of Central Florida
Engineering

Elizabeth Merwin
Embry-Riddle Aeronautical University
Human Factors

9th ANNUAL LEONARD P. GOLLOBIN POSTGRADUATE SCHOLARSHIP RECIPIENTS

The **Leonard P. Gollobin Graduate Scholarship** program was generously bequeathed by Mr. Gollobin to direct students developing their technical talents into the defense industry. Throughout his career, Mr. Gollobin led scientific initiatives that improved our defense systems and strategically shaped our military capabilities. NTSA administers this scholarship with the intent to provide financial support for those seeking advanced degrees and a path to leverage their commitment to strengthen our nation's security. The awards are offered at a Masters level in the amount $5,000, and at a Doctoral level in the amount $10,000.

Brianna Chicas
Florida Southern College
Human Factors

Christopher Mikulski
Capitol Technology University
Human Factors

Cherelle Connor
Virginia Tech
Computer and/or Information Sciences

Marie-Chantal Nyirahategekimana
Johns Hopkins University
Engineering

Ziad El-Rady
University of Central Florida
Interactive Entertainment

Aiden Satterfield
New York University
Computer and/or Information Sciences

Destinie James
Eastern University
Engineering

Nicolasa Villalobos
Texas Tech University
Human Factors

Ainsley Kyle
Oklahoma State University
Human Factors

Tariq VonGetzie
Drexel University
Engineering

BARBARA McDANIEL UNDERGRADUATE SCHOLARSHIP

NTSA manages the **Annual Barbara McDaniel Undergraduate Scholarship** program, implemented in 2019. The scholarship does not follow the postgraduate scholarship submission process. The NTSA scholarship committee pre-selects three academic institutions and those three institutions select up to two students for a combined award of $10,000. Barbara began her career as an educator prior to joining NTSA in 1993, as such these awards honor her life-long passion in the education of our youth. NTSA understands the importance of students pursuing Modeling & Simulation degrees and how vital it is to the modeling, simulation, and training (MS&T) industry. These scholarship awards will keep the MS&T workforce pipeline filled, starting at the Undergraduate level.

In its sixth year, NTSA awarded $10,000 to each of three universities:

- **Hampton University, Hampton, VA**
- **Old Dominion University, Norfolk, VA**
- **Shenandoah University, Winchester, VA**

DON'T DELAY!

IMPORTANT DATES FOR 2026

When to Apply Applications must be submitted by 19 June 2026.

How to Apply

See **IITSEC.org/Education/Career-Investment/Scholarships** for complete application details.

Award Announcement 7 August 2026

POSTGRADUATE SCHOLARSHIPS

Looking for Future Leaders in the Simulation, Training and Education community? Learn more about the I/ITSEC community at **IITSEC.org**.

Eligibility

U.S. Citizens • Full-time Masters or Doctoral students (complete undergraduate work by Spring 2027.)

See Study Disciplines at
IITSEC.org/Education/Career-Investment/Scholarships

Award Amounts Available for Fall 2026
$10,000 (Doctoral Candidates)
$5,000 (Masters Candidates)
Be our guest at I/ITSEC 2026 • 30 November – 4 December

Direct Further Inquiries To
I/ITSEC Scholarship Program
Reneé Despot, Director, NTSA Meetings & Operations
(703) 247-9490 or **rdespot@NTSA.org**

Scholarship Chair Janet Spruill, Aptima, Inc.

I/ITSEC 2026 Scholarship Deputy Chair Anne Little, Ph.D., SAIC

NTSA CMSP SCHOLARSHIP AT I/ITSEC

Luke Wetter
Embry-Riddle Aeronautical University
Human Factors

NTSA manages the **Annual Certified Modeling and Simulation Professional (CMSP) Postgraduate Scholarship**, implemented in 2022, at the Masters level in the amount of $5,000. The Certified Modeling & Simulation Professional (CMSP) certification program was created in 2002 to provide the Modeling & Simulation (M&S) industry with its own professional certification that remains valid for four years before recertification is required. The CMSP designation recognizes professionals with extensive experience and expertise in M&S.

For more information about the CMSP program, visit **www.NTSA.org/CMSP**.

NTSA RADM JAMES A. ROBB SCHOLARSHIP PROGRAM

The NTSA **RADM James A. Robb Scholarship Program** was announced at I/ITSEC 2024. Funded by a donation from the Robb family, the scholarship honors his commitment to education and to the modeling and simulation community. Admiral Robb was a stalwart of advancing the M&S industry, and he spent much of his professional and personal career focused on education for underserved and underrepresented students and teachers. Many of the STEM programs at I/ITSEC are a direct result of his vision and commitment to education, and the pathways for the future workforce in the M&S industry.

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Shenandoah University
Engineering

Kenneth Nwocha
Capitol Technology University
Educational Data Analytics

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Director, Strategic Planning, STEM, Congressional Liaison

DEBBIE BERRY, CMSP
Historian

STEVE DETRO
Chair, I/ITSEC Protocol

ANNIE PATENAUDE
Director, I/ITSEC Operations

DINO PIGNOTTI
Editor, Show Daily, Video Crews

VISIT NTSA IN SHOW MANAGEMENT OFFICE, SOUTH CONCOURSE ROOM 220AB OR EXHIBIT HALL BOOTH 2181

NATIONAL TRAINING AND SIMULATION ASSOCIATION

NTSA

The NTSA, an affiliate of NDIA, represents and promotes the business interests of companies in the modeling, simulation, training, mission planning/rehearsal, and support service industries. NTSA's corporate members enjoy reduced fees on all NTSA events as well as a subscription to the NTSA monthly e-newsletter and NDIA's National Defense magazine. Sustaining and Regular corporate members receive early space selection and discounts on exhibit space at I/ITSEC. Individual memberships are also available. **Visit us in Booth 2280.**

For NTSA membership information visit **www.NTSA.org/Membership**
or contact Erica Albrittain at **ealbrittain@NTSA.org**

NATIONAL DEFENSE INDUSTRIAL ASSOCIATION

NDIA

Based in Arlington, Virginia, the National Defense Industrial Association (NDIA) is a non-profit, educational association representing industry, government, and academia. Close to 1,700 corporate and 67,000 individual members rely on NDIA for networking, knowledge, and business development opportunities. As the nation's leading defense industry association, NDIA promotes collaboration to deliver cutting-edge technology, weapons, equipment, training and support to Warfighters and first responders. Through events, divisions, regional chapters and three affiliate organizations, NDIA convenes ethical forums connecting experts from government, academia and the defense industry to define threats and design solutions to ensure U.S. and partner national security. **Visit us in Booth 2280.**

For NDIA membership information visit **www.NDIA.org/Membership**
or contact the NDIA Membership Team at **membership@NDIA.org**

WOMEN IN DEFENSE

A NATIONAL SECURITY ORGANIZATION

WID WOMEN IN DEFENSE

Women In Defense (WID) strengthens the Defense Industrial Base and workforce by promoting programming that creates and enhances opportunities for women, increasing diversity within the defense community. WID's two-fold mission focuses on powering women currently working in defense and encouraging talented young women to pursue careers in National Security. Membership is open to women and men whose primary professional activities impact the national security of the United States and its partners and allies. WID's 20 chapters include members from defense companies; all branches of the U.S. Armed Forces; government; academia; think tanks; associations; and professional services. Active military and government employees receive complimentary membership. **Visit us in Booth 2280.**

www.womenindefense.net

INFO TO COME

NOTES

DOWNLOAD MOBILE APP

CONFERENCE LOGISTICS

ATTENDEE LUNCHEON

Lunch will be served Tuesday, 2 December – Thursday, 4 December at 1200-1330. You must enter and exit luncheon through the Exhibit Hall. Full Conference registrants will receive lunch tickets with their registration materials. Exhibitors and Visitors may purchase a ticket for $45 at the main Registration Station. Lunch tickets are dated; you must present the current day's lunch ticket for entry.

CONNECTIONS LOUNGE & GRILL

Stop by and relax in the Connections Lounge & Grill for a bite to eat or a refreshing drink, and then connect to your email or review the I/ITSEC program online to plan your next move at the conference. The Connections Lounge & Grill will be located in Booth 100, South Exhibit Hall A.

SHOW MANAGEMENT OFFICE

220AB • The Show Management Office will be staffed during show hours for all questions regarding booth space, rules, regulations, exhibitor locators, security, and late/early passes. Registration will not be made available at the Show Management Office.

ABOUT REGISTRATION

In addition to access to Tutorials, Papers, Special Events, and Professional Development Workshops, registration fees cover Continuing Education Units (CEUs), lunches (T-W-Th), coffee breaks (T-W PM, W-Th AM), continental breakfasts (W-Th), and the Thursday banquet. A meeting bag with conference materials is included.

I/ITSEC REGISTRATION SERVICES FOR 2025

We strive to minimize the time spent in line so you can move on to the conference events or the exhibit floor. Our goal is to make your I/ITSEC experience a pleasant one even before you enter the Orange County Convention Center (OCCC). Avoid that line and move on to what you came to I/ITSEC to do!

Traditional Registration Stations. Located in South Lobby/220DEF of the South Concourse Registration area, traditional walk-up registration will be available for Full Service Registration, on-site payments, changes/edits to name badges, multiple badge pick-ups, or just because you prefer dealing one-to-one with a real person.

Alternate Registration Stations within the Orange County Convention Center. Limited stations at the Main Registration Station will be open Friday and Saturday to handle early registration, especially exhibitors. There will be signage noting QR codes for those who need to register on-site using personal cell phones or laptops. Attendees are encouraged to pre-register and utilize the Self Badging stations once on-site.

Self-badging printing stations are only available for those who pre-registered and received a confirmation QR code. To complete your registration at this station, you must be paid in full with no outstanding balance or questions remaining about your registration.

Speakers (including Paper Presenters) will have special registration stations. More details will be provided to speakers/presenters, but be sure to watch for signage pointing to these areas.

Registration outside of the Orange County Convention Center. I/ITSEC full-service satellite registration will be located at the Main Lobby of the Hyatt Regency, adjacent to hotel check in, from Sunday noon through Tuesday. These stations will be staffed to assist you whether you need to start your registration from scratch or just need to pick up your nametags.

To get from your hotel to the South Concourse of the OCCC, you have several choices of transportation.

- I/ITSEC Shuttle Bus located on **IITSEC.org/Attend/Planning-Your-Stay/Transportation**
- Reasonable public transportation is available on the I-Ride trolley bus along International Drive. Check **http://www.iridetrolley.com** or your hotel for schedules.
- Your own or a rented vehicle. If the South parking lot is full, overflow parking will be available adjacent to the Hilton hotel. Shuttles will run from the lot to all OCCC Concourses. See detailed parking information (to the right).
- Most of the hotels are within walking distance (wear comfortable shoes).

CONVENTION CENTER PARKING

EXHIBITOR PARKING

$20 per Day – For regular vehicles with reentry privileges each day. Exhibitor must show badge and receipt for repeat entries. Plus tax

$40 per Day – For oversized vehicles with re-entry privileges each day. Exhibitor must show badge and receipt for repeat entries. Plus tax

ATTENDEE PARKING

$20 per Entry – For regular vehicles per entry. Plus tax

$30 per Entry – For oversized vehicles per entry. Plus tax

ACCEPTED PAYMENT METHODS

Cash, Traveler's Checks, American Express, MasterCard & Visa

ATTENDANCE WAIVER

Participation at I/ITSEC 2025 includes possible exposure to and illness from infectious diseases, including but not limited to COVID-19. While particular rules and personal discipline may reduce this risk, the risk of serious illness and death does exist. As an attendee at I/ITSEC, you freely assume all such risks related to illness and infectious diseases, such as COVID-19, even if arising from the negligence or fault of the Released Parties. By attending I/ITSEC, you hereby knowingly assume the risk of injury, harm, and all loss associated your attendance.

For complete information about I/ITSEC attendance policies, please review **IITSEC.org/Attend/Meeting-Safety-Responsibility**

LODGING

CONNECTED TO CONVENTION CENTER – WEST CONCOURSE

①	Hyatt Regency Orlando* (HQ)	$308
②	Rosen Centre Hotel	$252
③	Rosen Plaza Hotel	$239

CONNECTED TO CONVENTION CENTER – NORTH/SOUTH CONCOURSE

④	Hilton Orlando	$289

SEAWORLD/INTERNATIONAL DRIVE SOUTH AREA

⑤	DoubleTree by Hilton Orlando at SeaWorld	$155
⑥	Fairfield Inn & Suites Orlando at SeaWorld	Per Diem Only
⑦	Tru by Hilton Orlando Convention Center	$169

INTERNATIONAL DRIVE & CONVENTION CENTER AREA

⑧	Castle Hotel, Autograph Collection	$181
⑨	Embassy Suites by Hilton Orlando – International Drive Convention Center	$185
⑩	Embassy Suites by Hilton Orlando – International Drive/ICON Park	$185
⑪	Fairfield Inn & Suites Orlando International Drive/Convention Center	Per Diem Only
⑫	Hampton Inn Orlando – International Drive/Convention Center	$172
⑬	Homewood Suites by Hilton Orlando – International Drive/Convention Center	$177
⑭	Hyatt Place Orlando/Convention Center	$164
⑮	Residence Inn by Marriott Orlando Convention Center/International Drive Area	$177
⑯	Rosen Inn at Pointe Orlando	$95
⑰	SpringHill Suites by Marriott Orlando Convention Center/International Drive Area	$173

Visit the OnPeak housing desk inside the NTSA Show Office (S220AB) for assistance onsite at I/ITSEC.
You may also call our central agents Monday – Friday at **855-992-3353**.

DOWNLOAD MOBILE APP

PUBLICATIONS & MEDIA

THE NATIONAL TRAINING AND SIMULATION ASSOCIATION'S ANNUAL SIMULATION & TRAINING TRENDS AND TECHNOLOGY REVIEW – I/ITSEC EXHIBITOR DIRECTORY

This publication will be available to all the attendees, exhibitors, and exhibit visitors at I/ITSEC. It will be placed in the attendees' conference bags and available at registration, and other locations at the convention center.

THE I/ITSEC SHOW DAILY

The I/ITSEC Show Daily informs the simulation & training community on breaking events & happenings on-site at I/ITSEC. It is printed overnight and distributed daily at the conference center, choice hotels, and uploaded to the I/ITSEC website. The daily has evolved into a vital part of I/ITSEC; a "must read" while attending the conference. Stop by the Media Room, 210E, for more information.

ENGAGE I/ITSEC ON SOCIAL MEDIA

Facebook.com/IITSEC/

Linkedin.com/company/iitsec

@iitsec

https://www.youtube.com/user/NTSAToday

QR CODE

I/ITSEC MOBILE APP DOWNLOAD AT

Available on the App Store

ANDROID APP ON Google play

I/ITSEC PROCEEDINGS

The I/ITSEC Knowledge Repository provides a valuable link to the I/ITSEC training, simulation and education community. Access the online papers repository available at **IITSEC.org/Attend** post-conference.

STAY IN TOUCH

Complimentary WiFi at OCCC

Complimentary WiFi is available in the lobby and I/ITSEC session rooms (look for signage). WiFi signal strength is not guaranteed, if you need access outside of the complimentary stations, all of OCCC is now WiFi enabled for a modest user fee.

I/ITSEC is the premier annual event of its kind, attendance by the mainstream and specialist trade press is heavy, resulting in coverage that reaches your key marketing targets. Our media staff stands ready to assist you in achieving maximum exposure during your time at I/ITSEC. Corporate representatives are invited to bring their marketing materials to the Media Room for distribution as early as possible after the opening of registration.

- Visit Show Daily staff onsite in room 210E.
- Dino Pignotti, Show Daily Editor, **pignotti.dino@gmail.com**
- Check out more details on the I/ITSEC News page of **IITSEC.org**.

The I/ITSEC Media Room is 210E, phone **(407) 685-4013**.

SAFETY & SECURITY

FOR LIFE-THREATENING EMERGENCIES: DIAL 911
SECURITY HOTLINE DURING I/ITSEC: (407) 685-6111
ONSITE SECURITY OFFICE: 220G

SECURITY TRAINING BEFORE THE CONFERENCE

Technology collection directives contain mandates requiring exhibitors and presenters to receive a counterintelligence (CI) briefing from their CI support staff prior to I/ITSEC. Contractors with classified contracts may contact their Defense Security Service Special Agents. To avoid security breaches, I/ITSEC presenters and exhibitors should ensure that the required briefing has been received. A list of CI support agencies follows. Please contact your security officer/manager and ensure that an appropriate briefing for yourself and your colleagues is arranged. Providers of the briefings are:

ARMY	902 Military Intelligence
NAVY, USMC, COAST GUARD	Naval Criminal Investigative Service
AIR FORCE	Air Force Office of Special Investigation
CONTRACTORS	Defense Counterintelligence and Security Agency (formerly Defense Security Service)

PERSONAL SECURITY

The most important thing to protect, of course, is yourself. Pay attention to your surroundings. Report suspicious behavior or security breaches to a security person or NTSA staff. Familiarize yourself with emergency procedures and exits at your hotel and the Convention Center. Please note that security surveillance cameras are in place throughout the conference and exhibit areas.

EMERGENCY MEDICAL SERVICES

EMT and/or paramedics will be on-site during I/ITSEC (including hall build-up and teardown). During I/ITSEC 2024, they will be located opposite the Destination Lounge, near the escalators in Med Room 4. Dial 911 for life threatening emergencies. For non-emergencies within the center, dial 5-9809 or on your cell dial (407) 685-7041, or alert any security or I/ITSEC staff member with a radio.

BAGS AND BRIEFCASES

Bags and briefcases may be carried in by those wearing **Conference Attendee** or **Exhibitor** badges. **Exhibit Visitors** (those who are only visiting the exhibits) **WILL NOT** be allowed to carry in bags or briefcases. A check room will be available in the main registration area. A small purse or fanny pack is allowed, but is subject to search. Oversized bags and luggage will not be permitted inside the Windermere Ballroom during Opening Ceremonies. Additional security restrictions may be posted on **IITSEC.org** and on signage at the conference. Conference Management reserves the right to adjust security levels as deemed necessary during the conference.

PRESENTATIONS

Recording devices will not be permitted in the presentation rooms, unless authorized by the conference management. Presenters and Exhibitors should review their company's policy documents and those of the government agencies with whom you contract regarding open distribution, limited distribution, restricted distribution, and sharing limitations.

CAMERAS

Exhibitors have the right to limit photographs and videos of their displays. Please respect this right by asking before photographing or videotaping. Participants found taking photos or videos without the consent of the presenters or exhibitors will be dealt with according to security procedures, to possibly include confiscation of materials and removal from the premises.

STILL TIME TO REGISTER AT MAIN REG ONSITE FOR I/ITSEC 5K RUN/WALK/ROLL!

ANNUAL I/ITSEC 5K RUN/WALK/ROLL

WEDNESDAY, 3 DECEMBER 2025

OCCC, South Concourse

0530 Packet Pickup

0645 Start Time

IITSEC.org/Attend/Planning-Your-Stay • www.facebook.com/iitsec5k

All registered in-person runners who register by the deadline will receive a custom race tech shirt, finishers race medal, race bib, and official timing by Milestone Race Authority, and pre- and post-race refreshments. Virtual runners who register by the deadline may receive a custom race tech shirt, shirts will not be mailed, and you must pick up from the registration desk at I/ITSEC. Shirt sizes are not guaranteed. Snooze participants do not receive a shirt or medal.

Tax-deductible registration. The deadline to register online is 1600 EST on Monday, 1 December.
You may register onsite at the race beginning at 0600.

REGISTER BY 3 OCTOBER TO GET A SHIRT

END OF AUGUST – 3 OCTOBER (Register by 3 October to secure your shirt & medal)	$50
4 OCTOBER – 14 NOVEMBER (Shirts & medals are not available)	$50
15 NOVEMBER – 3 DECEMBER (Shirts & medals are not available)	$65

DATES & RATES ARE SUBJECT TO CHANGE

We are excited to once again be holding the I/ITSEC 5K (3.1 miles) Run/Walk/Roll to benefit the I/ITSEC STEM Initiative. Come out and have a great morning of fun while you support this great organization!

YOU HAVE FOUR GREAT OPTIONS TO PARTICIPATE:

1. **TRADITIONAL 5K PARTICIPATION –** Get out there, watch the sun rise, and put some pavement miles under your feet.
2. **Virtual 5K –** Want to participate on your own time and your own location? Here is your chance! Run a distance of 5k (3.1mi) the week of I/ITSEC with a GPS enabled app (Run Keeper, Map My Run, Zombies RUN!), like us on Facebook, and tag us with #IITSEC5K. No shirt or medal included.
3. **NOT INTERESTED IN RUNNING?** Make a donation instead which will go miles in supporting our great charities. No shirt or medal included.

THE 5K WILL SUPPORT

NTSA EcosySTEM OF LEARNING AT I/ITSEC

I/ITSEC STEM: The I/ITSEC STEM Initiative is a non-profit, 501c3 organization founded and maintained by the National Training and Simulation Association to support and promote activities encouraging students interests and pursuits of Science, Technology, Engineering, and Mathematics. For more information on this ongoing program, please visit the Education / STEM section on the I/ITSEC home page.

Earle L. Denton Memorial
GOLF TOURNAMENT

Organized by Central Florida Chapter NDIA
Sunday, 30 November 2025

Shingle Creek GOLF CLUB

9939 Universal Blvd, Orlando, FL 32819
407-996-9933 • www.shinglecreekgolf.com

DEADLINES

Golf On-Line Registration	23 November
Sponsorship	23 November

TOURNAMENT TIME

Sunday	1100 Registration | 1230 Shotgun

POINT OF CONTACT

Debbie Berry	407-699-5700 | zblue@cfl.rr.com
Robert Biggers	407-617-4481 | robertbiggers72@gmail.com

FORMAT

Captain's Choice / Scramble

PAIRINGS & REQUESTS

Final assignments and pairings will be made by the tournament coordinator. Priority is based upon receipt of payment.

NOTE: To guarantee requested pairings, all golfers (two, three or four) MUST be entered during a single login session. Golfers registering separately MUST clearly specify pairing requests under comments. The tournament coordinator will attempt to honor all requests.

CANCELLATIONS

Must be received via email to **zblue@cfl.rr.com** by close of business on 1 November to receive 50% refund. No refunds thereafter. Substitute golfers are permitted.

ON-LINE REGISTRATION

- Register and/or select sponsorship at **IITSEC.org/Attend/Registration-Fees**
- Register one to four players per login.

FEES

$150 per player *(green fees, range balls, cart)*

Coordinate club rentals directly with the pro shop.

SPONSORSHIPS

Sponsorship Opportunities (starting at $600) available via I/ITSEC registration site: Signage (Hole Signage), Putting Contest, Cart GPS, Welcome Continental, Beverage Cart, Pro Challenge.

SPONSORS

Send your logos via email to **zblue@cfl.rr.com** no later than 19 November. Do not bring your own sign.

**Scholarships and additional qualified initiatives supported through tournament proceeds. For a full list of initiatives (STEM, etc.), contact Central Florida Chapter NDIA.*

Sponsorships secured after 19 November might not include printed signage.

DATES AND RATES SUBJECT TO CHANGE

Interservice/Industry Training, Simulation and Education Conference
The National Training and Simulation Association (NTSA)
An Affiliate of the National Defense Industrial Association (NDIA)
2101 Wilson Blvd., Suite 700 • Arlington, VA 22201
www.IITSEC.org | www.NTSA.org