2024 CALL FOR PRESENTATIONS

ASSURING DETERRENCE THROUGH INTEGRATED TRAINING AND READINESS – THE NEED IS NOW!

2 DECEMBER – 6 DECEMBER 2024

Orange County Convention Center
Orlando, Florida USA

ORGANIZED BY
National Training and Simulation Association
an affiliate of
National Defense Industrial Association

The innovations and technologies presented annually at I/ITSEC have great potential to support our nation's warfighters and the service men and women of our international partners. In addition to the vast show floor, which highlights the best of our industry's leading-edge technical developments, I/ITSEC provides an opportunity for the global modeling and simulation community to come together and collaborate. The conference offers many venues for attendees to engage in technical paper presentations, special events, tutorials, and professional development workshops. Through these avenues, members from government, industry, and academia can discuss our most pressing challenges and how to go about solving them.

In today's world of increased military aggression and cyber security threats, the need for innovative I/ITSEC concepts and policy papers has never been greater. Our nation and international partners continue to be challenged with budget constraints, longer supply lines, and evolving rules of engagement. These great distances and complex battlefield conditions will require efficient and mobile multi-domain solutions at the warfighter's point of need. This year's theme "Assuring Deterrence Through Integrated Training and Readiness - The Need is Now" developed by our United States Sea Service principles (USN and USMC), concisely challenges our community to integrate new ideas and technologies to achieve this readiness. By leveraging more immersive training environments, AI-enhanced decision-making, and digital engineering our military services and industry are well-positioned to deter this aggression.

"The greatest victory is that which requires no battle."
— Sun Tzu, The Art of War

We therefore call on those from modeling & simulation, training, education, and acquisition communities to contribute to the I/ITSEC 2024 program by submitting an abstract to one of the program elements listed below. Your contributions are a vital element of this conference— we look forward to hearing your best ideas and thank you for your contributions.

JAMES THRELFALL
2024 Conference Chair

FREDERICK FLEURY
2024 Program Chair

IMPORTANT DATES

Instructions for each step will be posted at least two weeks before the process opens.

14 JANUARY – 3 MARCH	Abstract, Tutorial, Workshop Portal Open
8 APRIL	Authors Notified of Abstract/Tutorial Review Results
15 APRIL – 7 JULY	Paper Submissions
15 APRIL – 7 JULY	Tutorial/Workshop Draft Submissions
17 JULY	Clearance Forms Due
NLT 9 AUGUST	Authors Notified of Submission Review Results
16 AUGUST	Submission Updates in Portal for Print Program
12 AUGUST – 6 OCTOBER	All Final Presentation Submissions
2 – 6 DECEMBER	I/ITSEC 2024

THE CONFERENCE

The Interservice/Industry Training, Simulation and Education Conference (I/ITSEC) is the world's largest modeling, simulation and training event. Held near the beginning of December in Orlando, Florida, USA, I/ITSEC consists of peer-reviewed paper presentations, tutorials, special events, professional development workshops, a commercial exhibit hall, a serious games competition, and STEM events for teachers and secondary students. I/ITSEC is organized by the National Training and Simulation Association (NTSA), which promotes international and interdisciplinary cooperation within the fields of modeling and simulation (M&S), training, education, analysis, and related disciplines at this annual meeting. The NTSA is an affiliate subsidiary of the National Defense Industrial Association (NDIA). Hence, I/ITSEC also emphasizes themes related to defense and security. I/ITSEC is an annual forum for representatives from the military, industry and academia to connect and share knowledge. The conference draws 17,500 attendees from industry, government and academia, and features over 450 exhibits.

The United States Sea Services (USN and USMC) will serve as the lead service for I/ITSEC 2024 in partnership with all military services.

PAPERS

The I/ITSEC 2024 Conference Committee invites you to submit previously unpublished work and especially encourages original papers that align with the theme and concepts described in The Call. Prospective authors are encouraged to read through the subcommittee descriptions (see next page) and submit abstracts for papers that discuss the core research our industry will use to prepare the global force for the digital world. All paper presentations will be offered for Continuing Education Units (CEUs).

PAPER PROCESS

The complete three-stage process for submitting papers is detailed in the I/ITSEC Author's Handbook (available for download from the Authors section of the I/ITSEC website). The initial stage in the process is the submission of an abstract.

ABSTRACTS (Stage P1). As a prospective author, your chances of having an abstract accepted are significantly greater if you send your abstract to the appropriate subcommittee, so please read the descriptions carefully. It is also vital that you submit your abstract on time. Please refer to www.iitsec.org for additional details.

PAPERS (Stage P2). If your abstract is selected for expansion into a paper, you will be assigned a bird dog who will be your liaison to the subcommittee and the champion for your paper. Your chances of having your paper accepted are significantly greater if you work closely with your bird dog. Papers are accepted for both publication in the conference proceedings and presentation at the conference. The selection process includes a Best Paper nominee from each subcommittee that will be considered for the overall conference Best Paper. Detailed instructions for completing and submitting your paper will be available on the I/ITSEC website.

PRESENTATIONS (Stage P3). If your paper is accepted, then you will be required to submit a presentation for review prior to the conference. Presentations should be designed for a 20-minute time-slot, plus five minutes for questions and answers. Detailed requirements for the presentations will be available on the I/ITSEC website.

TUTORIALS

2024 CHAIR: MICHAEL J. O'CONNOR • moconnor@trideum.com

I/ITSEC presents a comprehensive tutorials program covering a diverse set of topics essential to the simulation, training, and education communities. Each tutorial is focused on building skills and provides an opportunity to earn CEUs. Tutorials are 90 minutes in length.

The tutorial program provides learning opportunities in two focus areas:

1) **FOUNDATIONAL** topics related to skills and knowledge required by practitioners in the I/ITSEC community. This includes topics to prepare for or maintain certification as a Certified Modeling and Simulation Professional (CMSP).

2) **EMERGING and INOVATIVE** concepts of particular interest to I/ITSEC attendees that provide skills in new and evolving technologies.

TUTORIALS PROCESS

The complete three-stage process for submitting tutorials is detailed in the I/ITSEC Author's Handbook, available for download from the Author Information page of the I/ITSEC website (under "Get Involved").

PROPOSAL (Stage T1). As a prospective tutorial presenter, you must submit a complete tutorial proposal including an abstract, detailed outline, intended audience, any prerequisites, and targeted learning objectives. Learning objectives are critical to the Tutorial Board's selection process. The Board also assesses the degree to which proposal topics will contribute to a comprehensive tutorial curriculum encompassing the two focus areas described above.

PRESENTATIONS (Stage T2). If your abstract is selected for expansion into a complete tutorial presentation, then you will be assigned an I/ITSEC bird dog who will be your liaison to the Tutorial Board and the champion for your presentation. You must submit a complete set of presentation slides to the Tutorial Board for review.

FINAL PRESENTATIONS (Stage T3). If your presentation is selected, then you will receive feedback from the Tutorial Board and then have the opportunity to submit a revised and final version of your tutorial presentation.

PROFESSIONAL DEVELOPMENT WORKSHOPS

2024 CHAIR: BRIAN VOGT • bvogt@appliedtrg.com

This conference seeks workshop proposals that offer in-depth and interactive engagement with innovative concepts, technologies and use cases exploring effective training and readiness. Workshops are half-day events. Topics should be of general interest to the I/ITSEC audience across the broad categories of training, education, human performance, and simulation, and should propose an in-depth treatment of a topic of current relevance or that is an emerging capability. Submissions from individuals and organizations outside of the traditional boundaries of the defense industry are welcomed. Proposals should describe the general topic for the workshop and a high-level outline of how the workshop would be conducted. Workshops with a thematic connection to a Tutorial are also encouraged as paired events.

We are pleased to continue to offer the "one per paper" and "two per tutorial or Professional Development Workshop" complimentary registrations at I/ITSEC. After Stage P2 and T2, authors will be notified and provided instructions for taking advantage of this benefit. This is a full registration to include access to all Tutorials, Papers, Special Events, Professional Development Workshops, Exhibit Floor access during open hours, Meals, and Meeting Materials.

THE SUBCOMMITTEES

EDUCATION
2024 CHAIR: **STU ARMSTRONG**

The Education Subcommittee seeks papers that present strategies, methods, technologies, and best practices that advance the science of learning across all phases of the learning lifecycle. Of particular interest are papers that present empirical data that document the effectiveness of military, corporate, and STEM (science, technology, engineering, math) learning initiatives. The Education Subcommittee also welcomes theoretical papers, case studies, and qualitative research efforts that can help to illuminate or explain the often-contradictory findings from empirical studies. Emerging areas of interest include: the application of learning analytics and extended reality (XR) sets to improve learning at the individual to the enterprise level, learning in hybrid human-machine systems, lifelong learning initiatives, informal learning efforts that occur outside of organizationally-sponsored courses, the integration of training and education initiatives and organizations, team and organizational learning, and applications of artificial intelligence (or machine learning) techniques to improve learning effectiveness.

EMERGING CONCEPTS & INNOVATIVE TECHNOLOGIES
2024 CHAIR: **EVAN OSTER**

This subcommittee seeks papers that discuss emerging and innovative technologies, methodologies, or concepts in modeling and simulation. Papers should clearly explain how the topic advances the state of the art and has relevance in defense, transportation, homeland security, medical, law enforcement, cyber security, energy, or other industries. Of particular interest are research and development papers from DoD emerging concept programs like SBIR, NavalX, TReX, and AFWERX. New developments in trusted artificial intelligence (AI), Human Machine Interfaces, Advanced Computing & Software, and Integrated Sensing & Cyber are also of interest. Candidate papers should thoroughly describe the challenges encountered and associated creative solutions implemented to overcome them. Submissions that simply describe applications or instantiations of known fielded technologies are discouraged. Rather, this track emphasizes unique and emerging concepts that enhance the mission effectiveness of the workforce, supporting platforms, systems, components, or materials proposed to be acquired or upgraded. With a focus on leveraging new concepts and technologies each year, this subcommittee offers an opportunity for attendees to find inspiration, gain insight, and support innovation in their own domain.

HUMAN PERFORMANCE ANALYSIS & ENGINEERING
2024 CHAIR: **SAMANTHA DUBROW**

This subcommittee seeks papers that focus on the human dimension — systematically addressing individuals and teams as an integral component within workplace systems. Papers should address the application of human performance analysis & engineering (HPAE) technologies, human performance measurement and effectiveness models, methods and tools, human-computer interaction (HCI), usability/user experience (UX), decision/performance support systems, and the impact of HPAE on organizational outcomes. Specifically, the subcommittee seeks papers that describe how particular interventions – including human interfaces to extended realities (XR), human-machine teaming and others – leverage and extend the capabilities of an individual and/or a team, and improve learning transfer and operations. Papers supported by human performance data gathered from scientifically valid experiments are especially valued.

POLICY, STANDARDS, MANAGEMENT & ACQUISITION
2024 CHAIR: **DAVID ROBERTS**

This subcommittee is seeking papers related to policy and standards issues associated with the acquisition, implementation, and maintenance of education, training, and simulation capabilities. This includes policy-related topics regarding training systems development and associated content, delivery, and sustainment. Papers are sought that provide insight into innovative approaches for managing requirements for acquiring, implementing, and sustaining these capabilities. Papers should provide qualitative and/or quantitative analysis of data to help substantiate outcomes; and where possible, characterize innovative processes or techniques to improve return on investment. Papers may address emerging policy, standards, or the need for policy or standards with respect to education, training, simulation, data analytics and cybersecurity. Topics of particular interest for the current year include emerging concepts in policy and standards, including Other Transaction Authority (OTA) implications to the training and simulation communities, sustainability, and outcome-focused approaches to training and simulation acquisition, development, execution and evaluation. Cyber policies dealing with the introduction of new technologies such as AI, XR and digital engineering are a valued contribution. The PSMA subcommittee also has a continuing interest in papers that address innovative intellectual property solutions that support maintenance and competition across the education, training and simulation industry.

SIMULATION
2024 CHAIR: **RAY COMPTON**

This subcommittee seeks innovative papers on the applied science of modeling and simulation, simulation architectures or techniques, as well as the exploration of synthetic entities or environments and how they apply to training, mission rehearsal, analysis, experimentation or research. Papers should present and explain concepts, theories and or applications that bring innovation to the modeling and simulation enterprise. Discussions should detail the technical challenges, past lessons, and unique and creative developments associated with developing, interacting with, and maintaining simulation systems. Topics of interest include evolving modeling and simulation technology, expanding interoperable simulation architectures, realistic human behavioral modeling, medical simulation, replication of cyber effects, and innovation in representing physical entities and behavioral actions within live, virtual, constructive, mixed reality and gaming environments.

TRAINING
2024 CHAIR: **KOREN ODERMANN**

This subcommittee seeks papers that discuss the application of innovative concepts, methods and technologies to create effective training solutions. Papers should present a clear problem description, state-of-the-art from current literature, analysis of current needs and training gaps, and practical application. Example topics include adaptive training, training system integration and interoperability, training applications of artificial intelligence or machine learning, individual and collective team training, learning science or learning engineering, innovative training strategies, and competency-based training and assessment. Descriptions of implemented solutions' effectiveness supported by quantitative and/or qualitative data are encouraged. Emerging technologies of interest include extended reality (XR) and virtual training environments, semi-automated training and assessment generation, mobile training, and training techniques to deal with rapidly changing or austere conditions. The subcommittee is interested in all phases of training system development including planning, analysis, design, development, deployment, evaluation, and lifecycle maintenance.