



INTERSERVICE/INDUSTRY TRAINING, SIMULATION & EDUCATION CONFERENCE

**INNOVATING AND ACCELERATING TRAINING:
ADAPTING TO AN UNEXPECTED FUTURE!**



CALL FOR PRESENTATIONS

PAPERS • TUTORIALS • PROFESSIONAL DEVELOPMENT WORKSHOPS

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 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 16,000 attendees from industry, government and academia, and features over 450 exhibits. The United States Navy and United States Marine Corps will serve as the lead services for I/ITSEC 2021 in partnership with all military services.

THE CALL

The Interservice/Industry Training, Simulation and Education Conference (I/ITSEC), the world's largest conference of its kind, has long showcased innovations in modeling, simulation, and advanced training technologies and techniques that have enhanced military readiness and saved lives on the battlefield. As we move forward, we are broadening the application of these technologies and techniques to support non-DoD needs in the domains of medicine, cyber-readiness, energy, and transportation. Innovations and technologies presented at the conference address real-world problems now and in the future. As this past year has shown, the future is often unpredictable, but we must handle the issues and situations that arise.

This year's I/ITSEC theme, "Innovating & Accelerating Training: Adapting to an Unexpected Future!" is meant to push the community to not only continue advancing the state of training with new methods and technologies, but to also build robust solutions to handle the unexpected events the future holds. If this year has taught us anything it is that enormous resources can be brought to bear on world-changing problems. We not only have to be ready for an unexpected future, we need to thrive in it!

I/ITSEC is the world's premier event for modeling, simulation, and training professionals to gather, interact, and learn from their peers from within and outside of their areas of expertise. It is ours to shape, provide content, and execute; and we do that through the contributions of all the authors, presenters, panelists, and technology demonstrators. Please join us to contribute to the conversation about the science, research, best practices, and needs for the future, and provide your best ideas and perspectives in papers and briefings that will add to our collective understanding of the realm of the possible.

Help us to prepare for the unexpected by participating in I/ITSEC 2021. There are many ways to contribute from a research paper, tutorial or workshop or by planning and / or participating in a special event. Getting involved is the first step that helps us all deal with an uncertain future.



JENNIFER ARNOLD
2021 CONFERENCE CHAIR



ELIOT WINER
2021 PROGRAM CHAIR

IMPORTANT DATES

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

18 JANUARY - 22 FEBRUARY	Paper Abstract & Tutorial Proposal Submittal Open
NLT 26 MARCH	Authors Notified of Abstract & Proposal Review Results
3 MAY - 21 JUNE	Paper Submittal & Tutorial Presentation Submittal
16 JULY	Clearance Forms Due
NLT 6 AUGUST	Authors Notified of Paper Review Results
27 AUGUST	Final Paper and Tutorial Updates Due
27 AUGUST - 24 SEPTEMBER	Paper Presentation Submittal
17 SEPTEMBER	Presenters' AV Forms Due
4 OCTOBER - 19 NOVEMBER	Practice Room Sign-up
29 NOVEMBER	Tutorials Presented
29 NOVEMBER	Speakers' Meeting and Reception
29 NOVEMBER - 3 DECEMBER	I/ITSEC 2021

POINTS OF CONTACT

I/ITSEC 2021 PROGRAM CHAIR

Eliot Winer, Iowa State University
515-450-1077 | ewiner@iastate.edu

GENERAL CONFERENCE INFORMATION

National Training and Simulation Association
703-247-9480 | E-mail: dlangelier@ndia.org

EXHIBITOR INFORMATION

703-247-9473 | E-mail: sburch@ndia.org



THE SUBCOMMITTEES

EDUCATION

2021 CHAIR: ANASTACIA MacALLISTER

The Education Subcommittee seeks papers which present theories, strategies, methods, technologies, and best practices that advance the science of learning across all phases of the learning lifecycle (analysis, design, development, delivery, and evaluation). Of particular interest are papers which present empirical data that document the effectiveness of military, corporate, and STEM 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 “big data” sets to improve learning at 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

2021 CHAIR: THOMAS YANOSCHIK

This subcommittee seeks papers that discuss emerging and innovative technologies, methodologies, or concepts associated with simulation and data analysis, training, education, and support to operations across the spectrum of government, industry, academia, and international uses. The papers should clearly explain how the topic advances the state of the art, builds on prior related work in the subject area, and demonstrates the use of or application in defense, transportation, homeland security, medical training, law enforcement, cyber security, or other areas. New, emerging topics include the use of modeling and simulation to support current and future workforce development, promote integration across different disciplines, and enable the development of ground-breaking technologies such as artificial intelligence, AR/VR, and data analytics. Candidate papers should thoroughly describe the challenges encountered and associated creative solutions implemented to overcome them. Special consideration will be given to papers that are based on solid research principles and present detailed results of interdisciplinary research efforts.

HUMAN PERFORMANCE ANALYSIS & ENGINEERING

2021 CHAIR: ERIC WEISEL

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, such as human performance measurement and effectiveness models, methods, and tools; human-computer interface (HCI) design and evaluation; usability/user experience; decision/performance support systems; and the impact of HPAE on organizational outcomes. Specifically, the subcommittee seeks papers that leverage and extend the capabilities of an individual and/ or team or that improve learning transfer and operations, especially those associated with cyber, Live Virtual Constructive (LVC), and medical. Papers supported by human performance data gathered from scientifically valid experiments are especially valued.

POLICY, STANDARDS, MANAGEMENT & ACQUISITION

2021 CHAIR: TYLER GATES

This subcommittee is seeking papers related to policy and standards issues associated with the acquisition, implementation, and main-

tenance of education, training, and simulation capabilities. This includes policy related topics in content and training systems development, 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 quantitative data to help substantiate outcomes discussed; 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, simulations, big data and cybersecurity. Topics of particular interest for the current year include emerging concepts in policy and standards like Agile approaches to acquisition and development, Other Transaction Authority (OTA) implications to the training and simulation communities, and outcome focused approaches to training and simulation acquisition, development, execution and evaluation. The PSMA subcommittee also has a continuing interest in papers that address innovative intellectual property solutions that supports maintenance and competition across the education, training and simulation industry.

SIMULATION

2021 CHAIR: JIMMY MOORE

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, 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 and gaming environments.

TRAINING

2021 CHAIR: KARA ORVIS

This subcommittee seeks papers that discuss the application of innovative concepts, methods and technologies to create effective training solutions. Papers should present a design framework based on the literature, analysis of current needs and training gaps, and practical application. Topics should be of general interest to the I/ITSEC audience and could include adaptive training, training system integration and interoperability, training applications of AI and machine learning, individual and collective team training, learning science/learning engineering, and competency-based training and assessment. Descriptions of implemented solutions are encouraged to be accompanied by evaluations of training effectiveness and lessons learned, documented with quantified data. Emerging technologies of interest include augmented reality and virtual training environments, semi-automated training and assessment generation, mobile training, and training techniques to deal with uncertain, rapidly changing or denied environments. The subcommittee is interested in all phases of training system development including planning, analysis, design, development, deployment, and evaluation, though we encourage those involved in early-stage efforts to consider submitting later in a project's lifecycle when there are results to report. Submissions from new industries that demonstrate innovative and effective training methods are also welcomed.

PAPERS

The I/ITSEC 2021 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 previous page) and submit abstracts for papers that discuss the core research our industry will put forth to improve the next generation of learning.

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 Best Paper and Honorable Mentions for each subcommittee. The Subcommittee Best Papers will be considered for 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 selected, you are 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. All paper presentations will be offered for Continuing Education Units (CEUs). Detailed requirements for the presentations will be available on the I/ITSEC website.

TUTORIALS

2021 CO-CHAIRS: DAVID A. MILEWSKI and LISA SCOTT HOLT
CONTACT: dave.milewski@caemsi.com and lholt@i-a-i.com
I/ITSEC presents a comprehensive tutorials program covering a diverse set of topics essential to the simulation, training, and education communities. This program provides learning opportunities in three main focus areas:

- 1) **FOUNDATIONAL** topics reflecting important themes from the Paper Subcommittees (Training, Simulation, Education, Human Performance Analysis & Engineering, and Policy, Standards, Management & Acquisition)
- 2) **REFRESHER** or **ADVANCED** topics to prepare for or maintain certification as a Certified Modeling and Simulation Professional (CMSP)
- 3) **EMERGING** concepts of particular interest to I/ITSEC attendees

Each tutorial provides an opportunity for Continuing Education Units (CEUs). Tutorials are typically 90 minutes in length, although longer tutorials are possible when warranted.

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 three main focus areas described above.

PRESENTATIONS (Stage T2). If your abstract is selected for expansion into a complete tutorial presentation, 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, 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

2021 CHAIR: JANA BREBURDOVA

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 ½ day events; in special cases a full-day workshop may be proposed with sufficient justification.

Topics should be of general interest to the I/ITSEC audience across the broad categories of training, education, human performance, and simulation, but 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.

We are pleased to continue to offer the "one per paper" and "two per tutorial" 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.