# PAPERS

The I/ITSEC 2018 Conference Committee invites you to submit previously unpublished work and especially encourages original papers that align with the theme and concepts described in The Call.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 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

I/ITSEC presents a tutorials program covering a diverse set of topics essential to the simulation, training, and education communities. This program provides opportunities in three main focus areas: 1) foundational subjects, including preparation for certification as a Modeling and Simulation Professional (CMSP); 2) refreshers and more advanced learning opportunities to help maintain certification; and 3) emerging topics of particular interest to I/ITSEC attendees. Each tutorial provides an opportunity for Continuing Education Units (CEUs). Most tutorials are 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 a 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 for I/ITSEC 2018, you will receive feedback from the Tutorial Board and then have the opportunity to submit a revised and final version of your tutorial presentation.

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 to include the Proceedings CD.

# IMPORTANT DATES

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

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| 5 January | Abstract Submittal Opens |
| 19 February | Abstract Submittal Closes |
| NLT 30 March | Authors Notified |
| 7 May | Paper/Draft Tutorial Presentation Submittal Opens |
| 15 June | Paper/Draft Tutorial Presentation Submittal Closes |
| 12 July | Clearance Forms Due |
| NLT 3 August | Authors Notified |
| 24 August | Paper Revisions Due |
| 27 August | Presentation Submittal Opens |
| 28 September | Presentation Submittal Closes |
| 2 November | Presentations Revisions Due |
| 26 November | Speakers' Meeting and Reception |

# POINTS OF CONTACT


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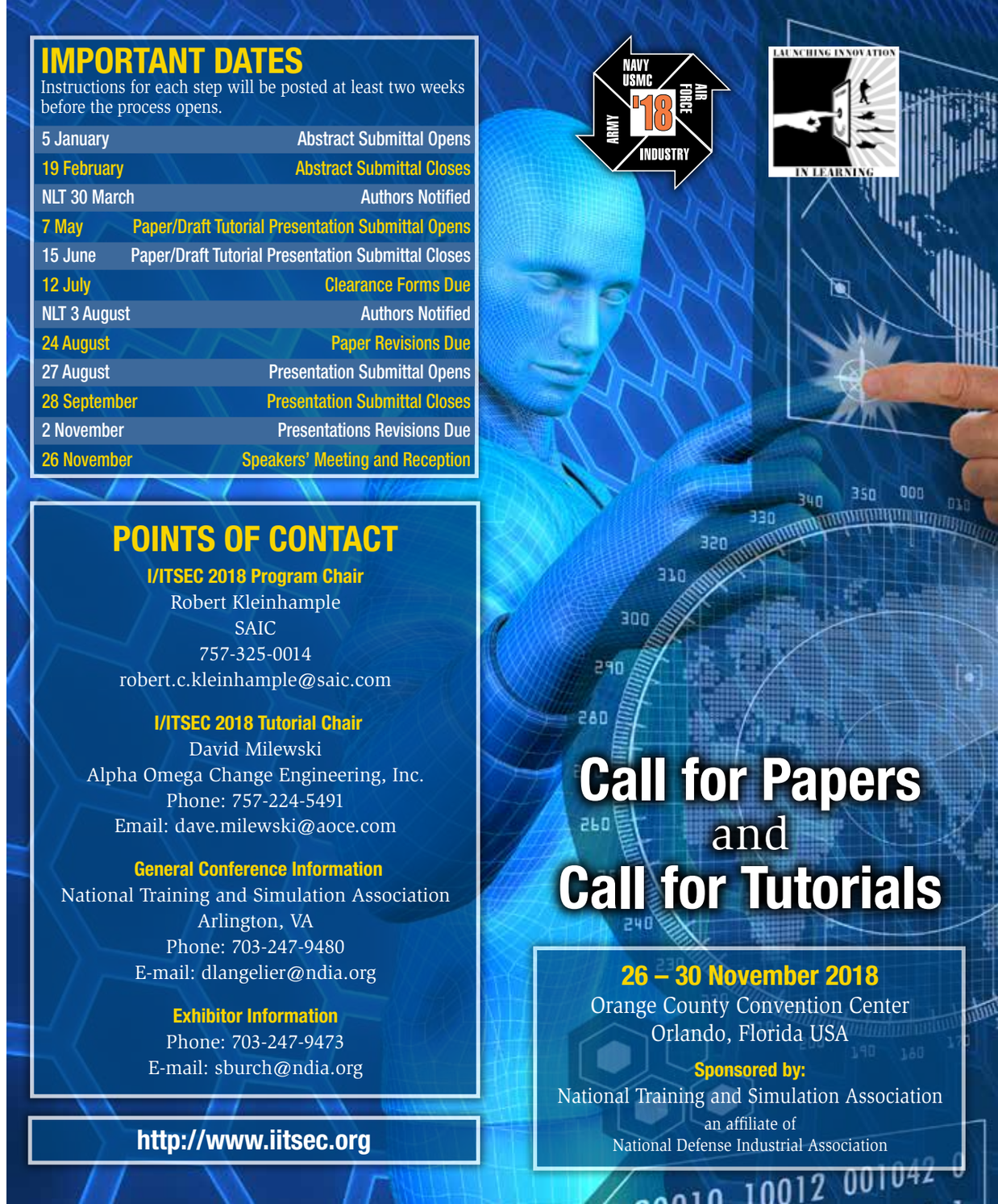
**http://www.iitsec.org**




# Call for Papers
and
# Call for Tutorials

**26 – 30 November 2018**
Orange County Convention Center
Orlando, Florida USA

**Sponsored by:**
National Training and Simulation Association
an affiliate of
National Defense Industrial Association

# THE CALL

Imagine a world where man is enabled by thinking machines. This is at once frightening and inspiring.

As the world's largest conference of its kind, the Interservice/Industry Training, Simulation and Education Conference has long showcased innovations in modeling, simulation and advanced training technologies and techniques that have enhanced military readiness and saved lives on the battlefield. Add disruption to the mix—in areas such as artificial intelligence and machine learning—and the possibilities expand exponentially.

We all have benefited from the tremendous value of disruptive technologies, and our training and simulation community has embraced these technologies to improve readiness and how we learn. The personal computer, mobile phone, and gaming technologies are great examples, but that's just the beginning of where disruption can take us. I/ITSEC is prepared to be the premier venue in 2018 to observe, learn, and discuss the application of innovative technologies in our training and learning environments.

The theme selected for the I/ITSEC 2018 conference is "Launching Innovation in Learning." Launch your organization toward its full potential through advances in learning made possible by innovation and disruption in technology, practices, and processes. Contribute to the conversation about the science, best practices, and needs for future learning, and bring your best ideas forward in papers and briefings that will add to our collective understanding of the realm of the possible. Attendees will be able to envision a future world where human and machine interact to address the challenges of our increasingly complex world. They will leave I/ITSEC 2018 armed with fresh knowledge and a vision about how their organizations will be launched toward future disruptions in learning.

Disrupt your way of learning. Participate in I/ITSEC 2018 by presenting a paper or tutorial, participating in special events, witnessing cool emerging technologies, and showcasing your company's best technology on the trade show floor.

Robert Kleinhample
2018 Program Chair

David A. Milewski
Tutorial Board Chair

# THE CONFERENCE

I/ITSEC is an annual forum for representatives from the military, industry and academia to connect and share knowledge. The conference draws 15,000 attendees from industry, government and academia, and features over 400 exhibits. The United States Sea Services (USN and USMC) will serve as the lead proponent service for I/ITSEC 2018 in partnership with all military services. I/ITSEC is sponsored by the National Training and Simulation Association (NTSA), an affiliate of the National Defense Industrial Association (NDIA).

# THE SUBCOMMITTEES

## TRAINING

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 literature, analysis of current solutions and training needs, and practical application. Popular topic areas include agile and adaptive training strategies, integration techniques, training system interoperability, individual and collective team training, crew coordination, and legacy system upgrades. Evaluations of training effectiveness and lessons learned, documented with quantifiable data, are also encouraged. Emerging areas of interest include technology based medical training, cyber training, augmented reality and virtual training environments, game-based learning, and training techniques to deal with uncertain and rapidly changing environments. The subcommittee is interested in all phases of training system design and development including planning, analysis, design, development, deployment, evaluation and life cycle support. Submissions from new industries that demonstrate innovative and effective training methods are welcomed.

## SIMULATION

This subcommittee seeks papers on the applied science of modeling and simulation, including simulation architectures or techniques, as well as the representation of synthetic entities or environments for use in training, mission rehearsal, analysis, experimentation or research. Papers should present and explain concepts, innovative theories and or applications of modeling and simulation. Discussions should detail the technical challenges, lessons learned, and unique developments associated with creating, interacting with, and maintaining simulation systems. Topics of interest include: the future of modeling and simulation technology; interoperable simulation architectures; human behavioral modeling; advances in medical simulation; cyber effects and the methodology used to create and present physical and behavioral representations of entities and environments within live, virtual, constructive simulations and gaming (LVC-G).

## EDUCATION

This subcommittee seeks papers that discuss the development and application of instructional strategies, methods, theories, and best practices that promote or advance learning. Papers should clearly articulate recent and innovative advances in the development and application of standards, methods, theories and strategies across all phases of the learning lifecycle (analysis, design, development, delivery, and evaluation) to promote and/or accelerate learning. Of particular interest are papers that report qualitative and/or quantitative data using new and innovative media types. The use of big data and analytics as a means to further accelerate learning and capture large data sets that can be used for qualitative and/or quantitative educational research is another area of interest. The Education Subcommittee welcomes conceptual papers discussing continuous improvements to military, corporate, or STEM education that will accelerate learning research and theory, and can be implemented in an operational context to support the paper's findings. Emerging areas of interest include but are not limited to individual, team, collective, joint, and coalition training leveraging strategies that include mobile, social, blended and adaptive learning.

## EMERGING CONCEPTS & INNOVATIVE TECHNOLOGIES

This subcommittee is seeking papers that discuss emerging and innovative technologies, methodologies, or concepts associated with simulation, 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 upon prior related work in the subject area, and demonstrates use/application in defense, transportation, homeland security, medical, law enforcement, or other areas. New, emerging topics will 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 and data analytics. Candidate papers should thoroughly describe the challenges that were encountered and creative solutions that were implemented. Special consideration will be given to papers that are based upon solid research principles and present detailed results of interdisciplinary research efforts.

## HUMAN PERFORMANCE ANALYSIS & ENGINEERING

This subcommittee seeks papers that focus on the human dimension, addressing humans as an integral component within systems and in mission accomplishment. Papers should address the application of Human Performance Analysis & Engineering (HPAE) topics such as: Training to achieve the third off-set, human performance measurement/effectiveness methods, tools, and evaluations; human-computer interface (HCI) design and evaluation; usability/user experience; decision-support systems; knowledge management tools and techniques and impact of HPAE on organizations. Specifically, the subcommittee seeks papers that leverage and extend the capabilities of an individual or team during training, and/or impact learning transfer and operations, especially those associated with cyber, Live Virtual Constructive (LVC), Black Swan events, and medical. Papers supported by human performance data gathered from innovative, scientifically valid experiments are especially valued, as are human performance advancement concept papers.

## POLICY, STANDARDS, MANAGEMENT & ACQUISITION

This subcommittee is seeking papers related to policy and standards issues associated with the acquisition, implementation, and maintenance of education, training, and simulation capabilities including topics in content 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. The PSMA subcommittee is also interested in papers that address innovative intellectual property solutions that supports maintenance and competition across the education, training and simulation industry.