



STEM Workforce Initiative



STEM supports and promotes activities encouraging students' interest and pursuit in Science, Technology, Engineering and Mathematics.

STEM Today = Prepared Workforce for Tomorrow

In support of STEM and Workforce Development, I/ITSEC sponsors the following programs:

- Future Leaders Pavilion
- Students at I/ITSEC
- Florida High Tech Corridor Council's stemCONNECT
- Post Graduate Scholarships (Masters and Doctorate)
- Serious Games Showcase & Challenge
- I/ITSEC Professional Development Workshops
- Central Florida Educators Workshop
- Continuing Education Units
- America's Teachers at I/ITSEC
- Golf and 5K Fundraiser

Visit the STEM Pavilion at
Booths 2473-2781



STOP!
SEE THE FUTURE

Future Leaders Pavilion

Booth
2681



Tuesday, 27 November

1200 – 1730

Wednesday, 28 November

0930 – 1730

PRESENTATION SESSION

1600 – 1730 • S320D

Thursday, 29 November

0930 – 1500

AWARDS CEREMONY

1415 • Booth 2288

Innovation Showcase

Learning and Leadership are indispensable to each other.

The National Training and Simulation Association and the members of I/ITSEC take great pleasure in welcoming you to the Eleventh Annual Future Leaders Pavilion and Special Session.

We are delighted to host secondary students from such diverse areas as:

- Albany, NY
- Dayton, OH
- Hampton, VA
- Orlando, FL
- Philadelphia, PA
- Sanford, FL

The students who participate in the Future Leaders Pavilion (FLP) are committed to excellence and are enrolled in engineering, computer sciences, mathematics, or modeling and simulation tracks. Projects presented this year will continue the legacy of excellence built by previous Future Leaders.

Please remember to stop by FLP, located in Booth 2681, during your visits to the exhibit floor.

On Wednesday at 1600 in room S320D, please lend support to our Future Leaders as they present their projects during their Special Session – “The Future is Now!”

Join us again at 1415 at the Innovation Showcase, Booth 2288 for an award ceremony acknowledging the work of our Future Leaders.



Students at I/ITSEC

Thursday, 29 November • 0900 – 1400

Over the years, thousands of Central Florida high school students have participated in a unique learning experience by visiting the Exhibitors/Exhibits. The purpose of the I/ITSEC Student Tours is to allow students to experience first-hand, real-world Training, Simulation, and Education solutions that will help bridge the gap between classroom theory and the applied use of Science, Technology, Engineering, and Mathematics (STEM) subjects. Annually, over 600 students, along with 200 school chaperones and volunteer I/ITSEC member escorts, are exposed to special demonstrations and static displays of the Simulation, Training, and Education Industry. Students are able to learn about the basic building blocks required to deliver high fidelity modeling and simulation products across a broad range of training environments. Participating in the I/ITSEC Student Tours on Thursday, 29 November, 2018, will give students a complete understanding of how they can apply the STEM related skills they learn in the classroom to highly successful careers in our Industry. For the first time in 2016, through a



partnership of NTSA, the Florida High Tech Corridor Council and other “STEM-U-Lators,” we are making it possible to bring I/ITSEC to the classroom through the stemCONNECT program. To learn more about the I/ITSEC Conference and Student Tours, please contact Bill “Roto” Reuter, I/ITSEC Student Tours Coordinator at roto@r-squaredsolutions.net.

America's Teachers @ I/ITSEC

I/ITSEC has a long history of supporting the education of students and teachers through visits to the conference. Since the America's Teachers at I/ITSEC program began in 2008, we have hosted teachers from Arizona, California, Florida, Georgia, Maryland, Montana, New York, Ohio, Rhode Island, Tennessee, Texas, and Virginia. As part of I/ITSEC's efforts to further education in Science, Technology, Engineering, and Mathematics (STEM), teachers and administrators from across the country have been invited to attend the conference. The America's Teachers at I/ITSEC Program consists of an orientation session, attendance at the Modeling and Simulation stemCONNECT, guided



tours of the Exhibit Hall, and attendance at tutorials, paper sessions, and special events. The Teachers will be in sessions and visiting the Exhibit Floor on Monday through Wednesday. Please watch for their Red, White and Blue Ribbons and be ready to engage in conversations about STEM and Future Workforce initiatives. This program is supported by the National Training and Simulation Association and its industry members.

Educators

Workshop to Introduce Simulation into the Physics Classroom – I/ITSEC 2018

stemCONNECT

A program of the Florida High Tech Corridor

The Florida High Tech Corridor (The Corridor) is proud to partner with I/ITSEC once again to highlight the 23-county Corridor region's thriving Modeling, Simulation and Training (MS&T) sector.

The evolution of technology has enabled Corridor programs to transform in ways unimaginable more than 20 years ago, specifically stemCONNECT. This program truly does make the connection between academia and private industry by bringing together students and teachers in classrooms with experts in science, technology, engineering and math (STEM) for engaging presentations through video conferencing tools. Indeed, since the first virtual session in 2013, stemCONNECT has already introduced high tech careers in MS&T and other sectors to nearly 13,000 students and teachers.

The Corridor's stemCONNECT team is excited to host two programs during I/ITSEC – one for educators and one

for students – to showcase MS&T technology and related career opportunities. Educators will join stemCONNECT for guided tours of industry exhibits and presentations from well-known experts in the field, including representatives from the Institute for Simulation and Training at the University of Central Florida, the National Center for Simulation and the Florida Advanced Technological Education Center (FLATE) – an initiative of the University of South Florida, Hillsborough Community College and St. Petersburg College funded by the National Science Foundation. Students will learn about the role of robotics in MS&T by programming a LEGO™ robot and interacting with an NAO™ robot. stemCONNECT will also guide students on a tour of industry exhibits with robotics demonstrations.

For those who cannot attend, stemCONNECT will be live streaming a tour of the I/ITSEC convention floor.



EDUCATION




SERIOUS GAMES

SHOWCASE & CHALLENGE

Great excitement awaits you in **Booth #2481** at the 13th annual Serious Games Showcase & Challenge (SGS&C)!

The SGS&C provides a showcase of best-in-class learning games submitted by business, government and student developers, and awards noteworthy games to recognize their achievements. The true uniqueness of the SGS&C is that every I/ITSEC “player” has the chance to play the games, talk with the developers, and cast a vote for the coveted SGS&C People’s Choice Award.

The SGS&C brings international award winning games to you through partnerships with the Simulation Australasia host of the Australasian Simulation Congress (ASC) SGS&C, and South America’s Brazilian Independent Games (BIG) Festival. These international winners automatically earn spots as finalists in the SGS&C, are eligible for awards, and are featured at I/ITSEC on the exhibit floor. Come see the diverse approaches taken by these international participants and meet their developers.

This year will once again highlight games that employ characteristics or techniques that enhance the game in a new or different way through the competition for the Innovation Award. The innovative technique can be hardware integration, instructional design, game design, content topic, or a combination thereof. Drop by the booth to see these innovative technologies in action!

The seven categories of SGS&C winners are announced at the **Awards Ceremony on Thursday, November 29 at 1330 in the Innovation Showcase, Booth 2288**: *Best Business-Developed Serious Game*; *Best Government-Developed Serious Game*; *Best Student-Developed Serious Game*; *Best XR Serious Game*; *Innovation Award*; *Students’ Choice Award*; and finally, what some might consider the most prestigious award, the *People’s Choice Award*.

And remember, the People’s Choice Award is based on votes from you! Your I/ITSEC badge includes a special SGS&C ballot that allows you to help determine the winner. **Be sure to vote before the deadline on Wednesday, November 28th!**

Check out the Serious Games Showcase & Challenge.

For more information, contact Jenn McNamara:
jmcnamara@breakawayltd.com

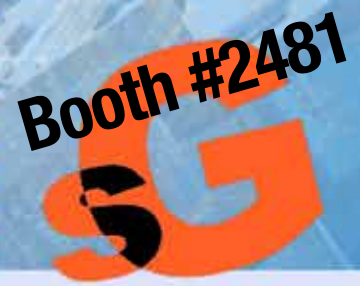
7 Awards!

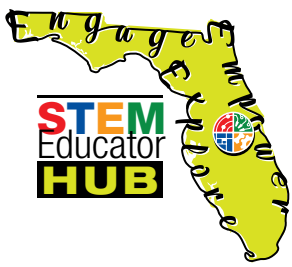
- Students’ Choice
- Innovation
- Business Student
- Government
- XR (AR/VR/MR)
- People’s Choice

 [sgschallenge](https://www.facebook.com/sgschallenge)

 [@sgschallenge](https://twitter.com/sgschallenge)

sgschallenge.com





STEM Tomorrow's Workforce, Today!

STEM Pavilion: Near the Exhibit Hall Lunch Entrance
Project Based Learning Exhibitors



PROJECT BASED LEARNING

www.centrafloridaSTEM.org

STEM Pavilion



Keeping the workforce pipeline filled with students pursuing STEM degrees is vital to the MS&T industry. It takes all of us to accomplish that. Each year the STEM Pavilion showcases organizations and programs that are successfully inspiring students and are preparing educators to teach and motivate them to pursue STEM degrees. We invite you to visit the Pavilion to learn more about the organizations and agencies active in the local community and across the country that you can support as a business or parent or community leader. Learn about programs available for students and how you can engage, mentor and help prepare them for future careers. Engage with educators who want to learn from you about the MS&T industry. Find ways to volunteer. Get involved! Your experience is needed.



Visit www.centrafloridaSTEM.org/parents for more Parent resources



Visit www.centrafloridaSTEM.org/student for more Student resources

Teacher Workshop

The annual I/ITSEC Teacher Workshop gives teachers a chance to be students and engages teachers in hands-on learning by letting them try new ideas for their classroom. It facilitates dialogue between Project-Based Learning (PBL) and industry professionals, while providing a set of relevant and accessible resources for teachers to use throughout the year. Teachers representing counties throughout Florida participate. This year the educators will be on the exhibit floor with tour guides visiting key local MS&T exhibitors to learn about the industry, STEM skills needed and career opportunities available. If you see one of our Teacher Tour groups on Wednesday, stop and introduce yourself!



Visit www.centrafloridaSTEM.org/educators for more Educator resources



The State of America's Workforce



UNITED STATES
40%

of U.S. companies report difficulty in filling positions because of a lack of STEM skills.*

INTERNATIONAL
\$2.5 Trillion

The U.S. would gain an extra \$2.5 trillion in Gross Domestic Product between now and 2050 if its students scored at the international average on math and science tests.*

27%

of the new high-skills jobs related to agriculture that will be created in the next five years will require a STEM education.*

86%

of engineers and 74 percent of computer professionals are men.**

21%

STEM employees earn 21% more than individuals in non-STEM fields.**

14%

of the engineering workforce is made up of women.**

10%

Underrepresented minorities hold only 10% of science and engineering jobs despite making up over a quarter of the U.S. population age 21 and older.**

The Central Florida STEM Education Council mission is to collaboratively coordinate and plan STEM education efforts preparing and encouraging pre-college students to enter technical fields of study and to pursue employment in the Central Florida high-tech workforce.

Building a Brighter Future
TODAY!



Over \$400,000 in scholarship awards distributed to date



RADM Fred Lewis, USN (Ret.)
President, NTSA • 1995 - 2012

These scholarships have been named the **RADM Fred Lewis Postgraduate I/ITSEC Scholarship** in honor of the former President of the National Training and Simulation Association (NTSA).

IMPORTANT DATES FOR 2019

When to Apply

Applications must be postmarked by 28 June 2019. (Don't Delay!)

How to Apply

See <http://www.iitsec.org/education/students-and-teachers/scholarships> for complete application details.

Award Announcement

9 August 2019

Post Graduate Scholarships

Looking for Future Leaders in the Simulation, Training and Education Community. Learn more about the I/ITSEC community at www.iitsec.org.

Eligibility

U.S. Citizens • Full-time Masters or Doctoral students (complete undergraduate work by Spring 2019). See Study Disciplines at <http://www.iitsec.org/education/students-and-teachers/scholarships>

Award Amounts

\$10,000 (Doctoral Candidates)
\$5,000 (Masters Candidates)
Available for Fall 2019
Be our guest at I/ITSEC
December 2-6, 2019

Direct Further Inquiries and Provide Submissions

Lewis-I/ITSEC Scholarship Program
c/o The National Training and Simulation Association
2101 Wilson Boulevard, Suite 700
Arlington, VA 22201
(703) 247-9480 or dlangelier@ndia.org

28th Annual RADM Fred Lewis I/ITSEC Postgraduate Scholarship Recipients



Kamryx Davis
University of Central Florida
Modeling & Simulation



Katelyn Kapalo
University of Central Florida
Modeling & Simulation



Ethan Mark
Georgia Tech
Industrial and Systems Engineering



Mason Nixon
University of Alabama
Huntsville
Electrical Engineering



Kaitlyn Oувerson
Iowa State
Human Computer Interaction



Daphne Whitmer
University of Central Florida
Human Factors and Cognitive Psychology



Josiah Wong
University of Central Florida
Computer Science

2nd Annual Leonard P. Gollobin Graduate Scholarship Recipients



Samantha Dubrow
George Mason
I/O Psychology



Melynda Hoover
Iowa State
ME and Human Computer Interaction