ITEEA Participates in Creation of New NAE Website to Support Implementation of PreK-12 Engineering Education

The National Academy of Engineering (NAE), in partnership with five other organizations including ITEEA, has launched a new website, LinkEngineering (www.linkengineering.org), intended to help U.S. PreK-12 educators implement engineering education in classrooms and out-of-school settings. The NAE project, funded by Chevron, is motivated by the increasing prevalence of PreK-12 engineering education in the U.S. The development and continued improvement of LinkEngineering is overseen by an expert committee and in partnership with ITEEA and four other organizations: Achieve Inc.; National Science Teachers Association; American Society for Engineering Education; and Council of State Science Supervisors. The project is made possible by the generous support of Chevron.

ITEEA President, Joey Rider-Bertrand shared, “ITEEA’s role in the development of LinkEngineering.org demonstrates the value of our profession’s expertise to the greater education community. Our continued support in this endeavor will not only benefit educators and their students, but also promote the importance of technology and engineering education through collaboration and outreach.” “LinkEngineering provides the first-ever platform for K-12 teachers and informal educators to work and learn as a community toward the goal of improving the reach and quality of U.S. precollege engineering education,” said NAE President C.D. Mote, Jr.

CONFERENCE NEWS

ITEEA 2016 DC Keynoter to Address “Applying Science, Technology, and Engineering to Restore Patients”

ITEEA is pleased to announce Retired Col. Geoffrey Ling, MD, PhD, as its 2016 DC Conference Program Excellence General Session keynote speaker. Dr. Ling is the founding director of the Biological Technologies Office for the Defense Advanced Research Projects Agency (DARPA). Dr. Ling has spent his career providing critical care to patients suffering from neurological trauma. He served as an officer in the United States Army Medical Corps for 27 years before retiring as a Colonel in 2012. As a military neurointensive care physician, he deployed with the 44th Medical Command (Airborne) to Afghanistan in 2003 and Iraq in 2005. At the direction of the Chairman, Joint Chiefs of Staff, Col. Ling deployed on four “Gray Team” missions to Iraq and Afghanistan from 2009-2012 to evaluate and recommend improvements to war-theater TBI care. In our initial planning thoughts with the leadership of our local planning team chairperson (Tom Loveland) and HQ staff, we are hoping to “celebrate and honor” ITEEA’s veterans at this session and do something “special” to honor ALL of our veterans present at the conference. Please let us know if you have any ideas or connections that might help us to identify potential sponsors for this type of well-deserved recognition. The full press release can be downloaded from www.iteea.org/Resources/PressRoom/2015/May/DC%2016%20Ling%20PR.pdf.

Exhibits in Washington, DC

The following vendors have already committed to exhibiting at the ITEEA Washington, DC conference in 2016: Kelvin, CNC Mastercam, PITSCO, Goodheart-Willcox, Paxton/Patterson, Autodesk, Whitebox Learning, DS Solidworks, Delcam,
and In-House Solutions. PITSCO has agreed to a PLATINUM Partner Lunch Sponsorship. Several vendors are considering sponsoring events such as Administrator Breakfast, PATT/International Reception as well as co-sponsorship of the Celebration Reception for all attendees. The new Exhibitor Prospectus has been sent to all of the 2016 exhibitors. We are off to a great start and we are hopeful to engage new ITEEA supporters as well. Please send us any special contacts with potential corporate members, exhibitors, and others who you think might wish to support our profession.

Be a Part of the STEM Showcase in 2016!
The 2016 Technology and Engineering STEM Showcase provides a forum to feature your best exemplar of technology and engineering instruction! Please come and share your STEM idea, technique, or best practice related to learning activities, marketing materials, career guidance, facility design, program design, assessment methods, equity, or classroom and laboratory management techniques. Showcaseres are asked to illustrate a single element of technology or engineering teaching and learning that exemplifies good STEM instruction to share with conference participants. ITEEA will be compiling these exemplars to share online as well with our members. The online application deadline is November 1, 2015. Please encourage your colleagues to apply for the STEM Showcase or consider applying yourself at www.surveymonkey.com/s/STEMshowcase16.

DC Conference Schedule
While ITEEA conferences typically follow a Thursday through Saturday schedule, the days have shifted for the 2016 conference in DC to a Wednesday through Friday schedule. We hope this will allow plenty of post-conference time for those who want to take advantage of the unique opportunity to spend time in our nation’s capital. Meanwhile, ITEEA staff is working hard to not refer to certain conference days by name (e.g., “Thursday”) as it’s not accurate this year. Instead, we have moved to a “Day 1, Day 2, etc.” naming convention. In order to “make it stick,” the HQ staff has decided that each incorrect reference to a conference day will cost the offender one dollar. It should be clear from the photo at right, that it’s an ongoing adjustment process!

ITEEA STEM™ CENTER for TEACHING AND LEARNING™

Ebd and STEM™ CTL Go International!
The ITEEA STEM™ Center for Teaching and Learning held an Authorized Teacher Effectiveness Coach Institute (ATI) near Baltimore, MD in early May. Among the participants was Simon Yalams of Jamaica. Yalams is the first International Authorized Teacher Effectiveness Coach (ATEC) and is certified to deliver Ebd’s Foundations of Technology professional development in the Caribbean. Additional ATECs were from Louisiana, Kansas, New York, and Maryland. ATIs prepare ATECs to do Engineering by Design (Ebd) workshops in their states (and now the Caribbean). ATIs are held twice annually in and around the Maryland-Virginia area.

Consultation with Kuwait’s Sabah Al-Ahmad Center for Giftedness and Creativity (SACGC)
ITEEA’s STEM™ CTL has partnered with the Sabah Al-Ahmad Center for Giftedness and Creativity (SACGC) to provide Engineering by Design curriculum, assessments, and professional development to the teachers and students of Kuwait. The project sent a consultation team to Kuwait City, Kuwait earlier this week. Team members included STEM™ CTL Assistant Director and consultation team leader, Henry Harms; Dr. Nathan Mentzer, Associate Professor from Purdue University; and Dr. Phil Reed, Professor from Old Dominion University (And ITEEA Region 1 BoD). Internally, the effort is being led from the Special Projects Team and Dr. Tanner Huffman. While in Kuwait, the team provided on-site program recommendations including facility evaluation, course modifications and implementation, and use of local resources to contextualize learning experiences. The goal of this consultation is to provide valuable recommendations to better meet the needs of the Center’s proposal to bring Ebd middle and high school content to the SACGC.
iSTEM ± FocalPoints™

Recent publications have elevated the priority of increasing the integration of Science, Technology, Engineering, and Mathematics (STEM) content for K-12 education. The STEM education community must invest in the development of valid and reliable scales to measure STEM content, knowledge fusion, and perceptions of the nature of STEM. An integrated approach to STEM education naturally requires authentic experiences to study how things work and how technologies are created. Technology and Engineering in STEM education are directly involved in problem solving, innovation, and design; three themes with high priorities on every nation’s agenda. Given its economic importance to society, students should learn about engineering and technology within a STEM context and exercise the skills and abilities associated with the design process.

To that end, the STEM ± CTL has embarked on the development of the I-STEM ± FocalPoints with the intention of making purposeful connections between technology and engineering and science/mathematics. The project, funded in part by the STEM ± CTL EbD Consortium will create a Guide for teachers and school-based/central office-based leaders who wish to implement an Integrative STEM approach in their school, district, or state. The Guide will be called I-STEM FocalPoints: An Educators Guide to Implementing Integrative STEM education in K-12.

Facilitating the project with the STEM ± CTL are three leaders: Suzanne Bevans, Principal, Henderson Elementary School, Montclair, VA; Bill Havice, Professor, E. Moore School of Education, Clemson University, Clemson, SC; and Matt Cathell, Assistant Professor, School of Engineering, The College of New Jersey, Ewing, NJ.

Presented at the 100Kin10 National Summit

ITEEA’s STEM ± CTL participated as a partner session leader in this year’s 100Kin10 Summit in Chicago. The session provided participants with an opportunity to view and provide feedback on the draft integrative STEM FocalPoints framework. ITEE’s Executive Director Steve Barbato and STEM ± CTL Director, Tanner Huffman were in attendance and took part in several sessions with topics including: micro-credentials, authentic performance assessment, and a “think tank” on the under-valuing of the “STE” of STEM in school systems. The Summit provided opportunity for ITEE to make potential funding and expert connections with other nonprofit organizations, industry partners, and corporate foundations. As a result of the Summit, STEM ± CTL will be submitting two partnership proposals and making contacts to expand the EbD Consortium.

AWARDS

ITEEA Award Opportunities

Applications are being accepted for the Distinguished Technology and Engineering (DTE), Emerging Leader (EL), Program Excellence (PE), and Teacher Excellence (TE) Recognition Programs. All who meet the criteria are encouraged to apply.

ITEEA will be introducing a new process to nominate awardees for Teacher Excellence and Program Excellence this fall. The new process is not intended to replace the existing awards procedure that each state follows, but rather an opportunity for ALL states to participate in a uniform and simplified manner.

We need YOU to make it happen! Celebrate your own achievements as well as those of a colleague by applying on your own behalf and nominating another deserving education professional prior to December 1st.
**Distinguished Technology and Engineering Educator (DTE)**

ITEEA’s Distinguished Technology and Engineering Professional (DTE) designation is a coveted mark of distinction in technology and engineering education. It recognizes technology, innovation, design, and engineering educators who have demonstrated a high level of competence and professional activity in the field of technology and engineering education. Anyone with ten or more years of ITEEA membership is invited to apply.

**ITEEA Emerging Leader (EL)**

ITEEA’s Emerging Leader honor is a coveted mark of distinction in technology and engineering education. It recognizes technology, innovation, design, and engineering educators who have demonstrated a high level of competence and professional activity in the field of technology and engineering education. Anyone with five or more years of ITEEA membership is encouraged to apply.

**Program Excellence (PE)**

Sponsored by ITEEA and Paxton/Patterson, The Program Excellence Award is one of the highest honors given to technology and engineering education classroom teachers on the elementary, middle, and high school levels. It is presented in recognition of outstanding contributions to the profession and students. Awards are given to one teacher from each category (Elementary, Middle and High School) from every state.

**Teacher Excellence (TE)**

Sponsored by ITEEA and Goodheart Willcox, The Teacher Excellence Award is one of the highest honors given to technology and engineering education classroom teachers and is presented in recognition of their outstanding contributions to the profession and their students. The Teacher Excellence Award provides public recognition at the local through international levels. The Teacher Excellence Awards program was established to identify outstanding technology and engineering teachers who will serve as models for their colleagues and who could form a leadership core to affect change in the field. Separate Teacher Excellence Awards are available for elementary, middle and high school teachers. Every state is eligible to participate.

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**PARTNERSHIPS**

**ITEEA Part of 2015 American Association for Engineering Educators (ASEE) Conference**

STEM CTL staff represented ITEEA at the recent 2015 ASEE conference. STEM CTL’s Tanner Huffman is a member of the K-12 Board and also contributed a presentation on the Preconference day for the K-12 program. ITEEA was provided a prime spot at the entrance of the exhibit hall (including exhibitor passes). ITEEA hopes that by attending this program, we can build relationships and identify possible collaborative projects and opportunities to benefit both organizations in the future.

**ITEEA Leads National Problem Solving Event at 2015 TSA Conference**

The 2015 national TEAM+S (Tests of Engineering Aptitude, Mathematics, and Science) events were held at the Gaylord Texan (Dallas, TX) in July during the regular TSA National conference. ITEEA’s STEM CTL, led by Dr. Tanner Huffman in collaboration with Dr. Len Litowitz (Millersville University) coordinated the onsite problem-solving event. Barry Burke joined Steve Barbato and several others to judge the student work. The top-ranking state teams competed with each other in the onsite TEAM+S problem-solving event. TEAM+S is an annual competition for middle and high school students designed to help them discover their potential for engineering—and hopefully a few become technology and engineering teachers too! The 2015 TEAMS competition, “The Power of Engineering,” explored the relationship between energy and engineering. Scenario topics included biofuel, electricity, nuclear and solar energy. TEAMS topics are based on the National Academy of Engineering Grand Challenges. More information on the event can be found at: [http://teams.tsaweb.org/](http://teams.tsaweb.org/). ITEEA also hosted a booth at the annual “Meet and Greet” session, which provided ITEEA the opportunity to interact with the 700+ technology and engineering teachers and their students (over 6,000). Teachers were encouraged to become active participants in ITEEA and their local associations. We also talked with many of the students about becoming a technology and engineering teacher.
The ITEEA booth displayed materials that included technology and engineering teacher preparation institutions (e.g., Valley City State University, California University of PA, and Millersville University). ITEEA distributed “Future Technology and Engineering Teacher” ribbons to the students who spoke with us and were interested in becoming teachers.

ITEEA Collaboration with National Technology Leadership Summit
The National Technology Leadership Summit (NTLS) is a group that has been in existence since 1998. It is comprised of what has traditionally been an “instructional technology” group of associations that meet at an annual summit in Washington, DC each fall. Over the past several years, the NTLS leadership has reached out to ITEEA for the Executive Director to attend the annual Summit. The NTLS goal is to broaden its summit to include STEM education associations. Consequently, I attended last year to see if it was worthwhile and found that the majority of their dialogue and sessions were more about what we do than instructional technology! Attached is a draft of a joint article that is being submitted for publication to the “Contemporary Issues in Technology and Teacher Education Journal” (CITE Journal). ITEEA was asked to collaborate with a few other associations to submit the 2014 article. It can be read by clicking here: https://www.dropbox.com/s/p1sycfvos3lkfds/NTLS%20Editorial%20Make%20to%20Learn%202014.pdf?dl=0. The summit is one of the main focuses of the National Technology Leadership Coalition (NTLC), a consortium of national teacher educator associations and national technology associations established in 1998. The National Technology Leadership Summit is the vehicle used by the NTLC to carry out many of its goals. For the past several years, NTLS has had a strand focusing on using modern manufacturing techniques in STEM education. The most recent strand at NTLS was to use the advanced manufacturing techniques to reconstruct historical inventions of the early 1900s to be used as STEM teaching tools.

ITEEA MEMBERSHIP

ITEEA is always on the lookout for new members to join us. We need YOU to make it happen! Please direct anyone who is interested to www.iteea.org/Membership/membership.htm

Corporate Members
ITEEA Corporate Members are committed partners who not only support the ITEEA mission but also exhibit, advertise, and sponsor many of our events. To see current ITEEA partners, visit www.iteea.org/Marketplace/corporatemembers.htm

Institutional Members
ITEEA Institutional membership was extended to include both colleges/universities and organizations/non-profits. To see a list of current ITEEA Institutional members, visit www.iteea.org/Resources/institutionalmembers.htm

Integrative STEM Memberships for Schools: Elementary, Middle and High School
NEW for Elementary Integrative STEM Members: Every teacher in the school receives ITEEA member benefits (previously Elementary Integrative STEM Memberships included one contact at each grade level and the principal). The Middle and High School Integrative STEM Program includes the Principal and up to four additional teachers in a variety of content areas/disciplines. Additional teachers may join at a reduced rate of 50% off the professional membership rate. For more information, visit www.iteea.org/Membership/membership.htm

Care Packages Sent to Support ITEEA in the Field
Since May, eighteen “care packages” have been provided to ITEEA Affiliate Representatives to assist them with membership promotions at their state conferences. In addition, ITEEA has had support at the following conferences: NSTA STEM Forum, 100kin10, Annual TSA Conference, PA STEMATHON, New York STEM Conference, ASEE, Virginia Technology and Engineering Educators Conference, GE Foundation Summer Conference, Ohio Technology & Engineering Showcase. “Care packages” contain membership brochures, insurance information, conference materials, sample journals, and latest press releases if applicable. To request a care package, contact ITEEA Membership.
ITEEA Welcomes NEW Institutional Member Tufts University CCEO
Tufts University Center for Engineering Education and Outreach (CEEO) has joined ITEEA as an Institutional member. CEEO is a leader in supporting efforts to integrate engineering into K-12 education. CEEO offers a 100% online graduate certificate program for inservice teachers. The program delivers content and pedagogy courses that are hands-on and interactive. Designed for practicing educators, the program prepares teachers to bring innovative engineering education to their K-12 classroom. In addition, Tufts CEEO also offers several workshops for both kids and educators throughout the year.

ITEEA Trust for Insuring Educators
ITEEA is one of 65 professional education associations that belong as a group to the “Trust for Insuring Educators” (TIE). The Trust recently added a new offering for ITEEA members at a greatly reduced amount through the 2015 Professional Liability Campaign. This latest offering provides protection against lawsuits and workplace-related conflicts. The TIE insurance program, administered by Forrest T. Jones and Company, consists of more than a dozen insurance plans, including life, accident, disability, health, long-term care, auto, and professional liability coverages underwritten by some of the nation’s leading insurance companies. These plans are specially designed for educators, with features, benefits, and rates not readily available elsewhere in the market. In addition, all NEW ITEEA members receive a free $40,000 life insurance policy just by joining ITEEA!

ITEEA PUBLICATIONS

Anniversary Years for ITEEA Journals
Not one but two ITEEA journals are celebrating significant anniversaries this year. This week, *Technology and Engineering Teacher* will kick off its 75th Anniversary volume year while *Children’s Technology and Engineering* will begin its 20th Anniversary volume year. To raise awareness of these milestones, ITEEA has created commemorative anniversary logos for both journals. These logos will be on the covers of the respective journals for the entire 2015-16 publishing year. To commemorate these anniversaries, ITEEA encourages STEM education professionals to make a donation to the Foundation for Technology and Engineering Education so that while we celebrate our past, we can also ensure the future of technological literacy for all!

New Legacy Project Profiles Published Online
ITEEA recently published three new “Legacy Project” profiles on its website. The Legacy Project focuses on the lives and actions of leaders who have forged our profession into what it is today. Members of the profession owe a debt of gratitude to these leaders. One simple way to demonstrate that gratitude is to recognize these leaders and some of their accomplishments. The newly published profiles highlight the careers of William E. Dugger, Jr., Franklin Owens, Jack Wescott, and Donald F. Smith. These profiles and others can be viewed at The Legacy Project at [www.iteea.org/Resources/PressRoom/Legacy/LegacyProject.htm](http://www.iteea.org/Resources/PressRoom/Legacy/LegacyProject.htm)

OUTREACH INITIATIVES

International STEM Ambassadors
2015 has provided opportunities for ITEEA members Ed Reeve (Utah State University) and William E. Dugger (Professor Emeritus, Virginia Tech) to act as “STEM ambassadors” on behalf of ITEEA around the world. Dr. Reeve spread the word at the 2nd International Conference on TVET in Jamaica in May, 2015. He also presented at the 29th PATT Conference in Marseille, France in April, 2015. Dr. Dugger will be a keynote speaker at the ICITE-SD-2015 Conference in Japan in November, 2015. Dr. Reeve and Dr. Dugger not only address and advocate for STEM education at these events, they also encourage ITEEA member and issue invitations to ITEEA 2016 Annual Conference.