Don’t Miss These Exciting Tour Opportunities in Milwaukee!

**Harley Davidson “Steel-Toe Tour”**  
Wednesday, March 25, 2015  
12:30pm–4:00pm  
Tour of Harley’s powertrain operations. A true Wisconsin original. See where the Legend was born! Tour begins at the Harley Museum. A shuttle takes visitors to the assembly plant. Following the tour, visitors can tour the museum.

**Harley Davidson “Museum Tour”**  
Thursday, March 26, 2015  
12:30pm–4:00pm  
Tour the Harley-Davidson Museum. The Museum offers a glimpse of American history and culture like you’ve never seen before—through the success and trials of an iconic American company. Interactive, eye-catching exhibits present an unparalleled collection of legendary stories of our nation’s past.

**Miller Park “MVP Roof Presentation Tour”**  
Thursday, March 26, 2015  
1:00pm–4:00pm  
Tour a National League baseball park with a one-of-a-kind retractable roof. Go behind the scenes to stand on the field and in dugouts. Visit the control room where the roof is raised and lowered. Listen to a 30-minute presentation on Miller Park’s unique roof system (90-minute tour and 30-minute roof presentation).

**GE Healthcare**  
Friday, March 27, 2015  
1:00pm–4:00pm  
GE Healthcare provides transformational medical technologies and services that are shaping a new age of patient care. Tour the Global Design Center where aesthetics, design, and ergonomics are applied to medical technologies. Learn about “remanufacturing” in the CT/PET CT “Gold Seal” manufacturing facility. See how GE Healthcare remanufactures used equipment into certified pre-owned GE medical equipment.

**Joy Global**  
Friday, March 27, 2015  
1:00pm–4:00pm  
Joy Global is the worldwide leader in mining solutions, solving mining’s toughest challenges through world-class products and direct service. Tour a state-of-the-art manufacturing facility producing large-scale products for the mining industry. See world-class people create world-class products in order to provide world-class service around the world.

Tours are just one of many professional development opportunities for ITEEA conference attendees. Check out the Preliminary Program for more exciting programming!
Save Money by Preregistering for ITEEA’s 77th Annual Conference in Milwaukee on March 26-28, 2015

Preregister before February 20, 2015 and save nearly 20% on conference registration fees. After February 20, full conference rates will apply. Preregistering also makes you eligible for the preregistration prize drawing for one of two $100 Amazon gift cards as well as additional chances to win the exhibitor raffle. Don’t delay—preregister and make your Hotel Reservation online. View, download, and print the Preliminary Program.

Plan to be immersed with others who want to remain at the top of the teaching profession as you focus on professional development, vendor interaction, and networking and have the opportunity to participate in discussions that will set the course for the future of the profession. Check the online Conference Guide regularly for updated Conference info!

ITEEA Launches First Headliner Publication

ITEEA recently launched a new communication, titled The ITEEA Headliner, designed to provide the latest information, updates, and activities from ITEEA’s Board of Directors, Headquarters Staff, and STEM® Center for Teaching and Learning/EbD™. The Headliner will be published quarterly and disseminated to ITEEA’s Board, Affiliate Representatives, Corporate Members, and other individuals and groups upon request, as well as posted on the ITEEA website. If you would like to be added to the distribution list, email Christine Maggio.

ITEEA Star of the Month: Troy Blunier

Technology and Engineering Department Chair
Timothy Christian School, Elmhurst, IL
ITEEA Region 2 Board Representative
(Nominated by: Steve Parrott)

In his relatively short career, Troy Blunier has expanded his role from technology and engineering teacher to Department Chair at Timothy Christian Schools in Elmhurst, IL. Troy serves in many leadership roles to help further promote technology and engineering education. Troy currently serves on the Technology Education Association of Illinois’ board as the IACTE/ITEEA liaison. In addition, he was elected to serve on ITEEA’s Board of Directors as the Region 2 Director. To help provide every educational and personal opportunity for his students, Troy has brought in the ITEEA® STEM Center for Teaching and Learning’s Engineering byDesign™ (EbD™) curriculum for his students and is an ITEEA EbD™ Teacher Effectiveness Coach (TEC). Troy is also an active Technology Student Association (TSA) chapter advisor, and three of his students serve as President, Treasurer, and Reporter for Illinois TSA.

Troy is always looking for ways to provide opportunities for his students, whether it is a VEX Robotics competition or competing at Illinois State University’s TECH Day. Most recently, Troy was able to help promote and represent ITEEA at the International Manufacturing and Technology Show. This is typical for Troy, as he has a service mentality and a strong desire for his students to succeed. Congratulations Troy!

ITEEA “Represents” at MTEEA

Thanks to Affiliate Representative Joel Ellinghuysen for representing and promoting ITEEA at the MTEEA (Minnesota Technology and Engineering Educators Association) Fall Conference! The 2014 conference, held September 26th and 27th, marks the 36th anniversary of Minnesota’s premiere technology education conference. More photos from the conference are available for viewing.
Share Your Best Practices at the 2015 STEM Showcase

ITEEA’s 2015 STEM Showcase provides a forum to feature your best exemplar of technology and engineering instruction! Consider sharing 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. Showcases 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 as with our members.

ITEEA’s STEM Showcase in Milwaukee is expected to be even bigger and better than the very successful event in Orlando. Don’t miss this unique opportunity to share best practices with your colleagues and truly showcase your program on March 26, 2014. Apply before the November 15 deadline.

ITEEA Participates at the IMTS Smartforce Student Summit

Through the leadership and volunteer spirit of ITEEA Board Members Steve Parrott and Troy Blunier, ITEEA exhibited in early September at the IMTS Smartforce Student Summit. The International Manufacturing Technology Show (IMTS) is one of the largest industrial trade shows in the world, featuring 1,900 exhibitors and 100,000 visitors. The Smartforce Student Summit is an IMTS program that enriches student and educator attendance at the Show and encourages career consideration in the manufacturing technology industry. The Student Summit is designed to allow young people to interact with today’s manufacturing industry so that they can translate their STEM education into real-world results within high-tech and high-value careers. It was expected that over 10,000 students, plus their teachers, would attend the Student Summit. Read more about the Student Summit.

Check Out These NEW Products Now Available from ITEEA

Designing SAFER Learning Systems for Integrative STEM Education

Teachers, administrators, supervisors, and higher education faculty members can all benefit from the new classroom-ready resources focusing on designing safer Integrative STEM Education learning environments. Completely revised in 2014, this manual aids teachers in developing and carrying out a safety program in the technology and engineering education classroom. The guide uses the systems approach: Safety in the classroom is dependent on the interaction of varied elements—and many of these elements are discussed in the text, such as the environment, human factors, tools and equipment, processes, materials, and outside influences. The manual includes sample releases and other forms that teachers can duplicate for classroom use. New in this edition are 18 printable safety posters and corresponding safety tests as well as PowerPoint presentations and videos that teachers can use to reinforce safer practices.

P221CD - $36; Members $29 (pdf files on CD)

Game Art Design

Game Art Design (GAD) introduces students to the basic skills necessary to enter the video game industry. In GAD, students are introduced to the history of games and technology to help them understand where the industry has been and what the future may hold. Students also explore the basics of game theory and strategic thinking. Game designers create prototypes that provide a way to create aspects of the game or a working model of a game. This course will walk the student through this process, culminating in a finished board game prototype and incorporating all of the aspects learned in game theory. In the culminating project, students practice learning a game engine and produce a functioning 2D game.

P262CD - $44; Members $38 (interactive documents on CD)

Order by logging in to your account or creating a new one, downloading an order form, or calling 703-860-2100.
Former ITEEA President is Einstein Fellow
Former ITEEA President Anna Sumner was recently selected as a distinguished STEM educator as part of the Albert Einstein Educator Fellowship Program. Anna will serve an 11-month fellowship at the National Science Foundation near Washington, DC where she will provide practical classroom insight to inform the development and implementation of education programs and policies, especially those related to STEM education. Sumner is a middle school engineering and technology teacher from Westside Middle School in Omaha, NE. [Read the full story.]

Attention all COLLEGE STUDENTS
Join ITEEA before October 31 and receive $15 off your Student Membership! Sign up fast...CNC/Mastercam will sponsor the first 100 students to apply. Ensure your access to the latest tools, resources, and an extensive professional network that can help you find a job! Click here to take advantage of this [Special Offer]. Questions can be emailed to mwiley@iteea.org.

Create a STEM Team at Your School!
ITEEA values its professional members and their dedication to the field. In an effort to help gain support for you within your own schools, we created the Group Integrative STEM Membership to assist you in leading the STEM Integration Movement at your school. By working together with your colleagues, you will create an interdisciplinary team that results in a cohesive integrative STEM education experience for every student in your school. ITEEA offers PreK-12 STEM Memberships for ALL grade levels. [Find out more] or call for more information: (703) 860-2100.

Share What’s Happening in Your Classroom:
Video Contest Deadline is November 30th!
ITEEA is currently accepting submissions for the 2014 “Technology and Engineering Bring STEM to Life” Video Contest. Not only will you have the opportunity to share what’s happening in your classroom, but you can also create some terrific free PR for your program AND help improve the public’s understanding of technology and engineering’s role in STEM Education! The first-place winner will receive a FREE registration to the 2015 ITEEA Conference in Milwaukee, WI, and there will be additional prizes for the top five finalists. Click here for [complete details]. Questions can be emailed to kdelapaz@iteea.org.

Princeton Freshmen Begin Four-Year STEM Journey
ITEEA Member Brian Lien’s program at Princeton High School in Cincinnati, OH was recently highlighted by [Cincinnati.com]. According to Lien, “As the students follow the curriculum through their four years at Princeton High School, they will be learning critical thinking and problem solving, blending academics with real-life applications.” Brian teaches technology education, architecture, and engineering at Princeton High. [Read the full story.]

Children’s Council Offers Paper Engineering Contest
ITEEA’s Children’s Council is sponsoring a paper engineering contest for all PreK-6 students in the United States. The contest supports two of the Children’s Council’s goals: to promote children’s creativity, ingenuity, and design-based problem-solving skills and to promote the study of technology and engineering as a vital aspect in every elementary school. The contest will consist of four divisions: PreK-K, 1-2, 3-4, 5-6. Click here for [full contest information]. Questions? Email [Bob Claymier].

Important Deadline for the Best of the Best in STEM Education
Are you an ITEEA member who is integrating a quality technology and engineering education program with the school curriculum? Are you a technology and engineering education teacher or supervisor who seeks professional development? Are you an undergraduate student majoring in technology and engineering preparation? Are you a technology or engineering teacher who is continuing your education? Do you know of an exemplary teacher or program that you would like to nominate for an ITEEA Professional Recognition Award? If you answered “yes” to any of these questions, you should explore ITEEA’s [grant, scholarship, and award opportunities] prior to the December 1 deadline.
TEAMS Competition Registration Now Open
Registration for the 2015 TEAMS (Tests of Engineering Aptitude, Mathematics and Science) competition is now open. This year’s theme is “The Power of Engineering,” and the competition includes scenarios that explore the relationship between energy and engineering. Students have the opportunity to explore topics such as solar energy, wind and hydro power, nuclear power, alternative fuels, and smart homes through participation in the TEAMS competition. During this one-day competition, teams of four to eight students work together to solve issues related to these engineering topics and to compete for competition day, division, and state rankings. The TEAMS competition brings learning full-circle as teams apply classroom knowledge and research to real-world engineering problems. The 2015 TEAMS competition window is February 9 through March 21.

ITEEA institutional members may be interested to know that while some TEAMS contestants compete at their school, others travel to Collegiate Host Sites to compete. TEAMS offers postsecondary technology and engineering programs a hands-on recruitment opportunity. There is no fee to become a Collegiate Host Site. Many use TEAMS day as an open-house activity or supplement it with lunch, campus tour, guest speaker, or their own recognition program. Others use it as a community outreach tool. Contact Sandy Honour to learn more about becoming a TEAMS host. EbD™ network schools receive a 10% discount off the national registration fee of $125 per team when they register using the discount code 2015EbDITEEA. To learn more about the TEAMS competition and to register, visit the TEAMS website. To receive more information on TEAMS, contact TEAMS program manager Sandy Honour via email or at 888-860-9010.

Real World Design Challenge Registration Now Open for 2014-2015!
Registration for this year’s Real World Design Challenge is now open! Don’t miss out on this year’s exciting challenge and prizes. Sign up Today: it’s totally free! This year we are giving away up to seven $50,000 scholarships from Embry-Riddle Aeronautical University, one for each student on the national winning team. Additionally, every team that signs up will receive free copies of PTC Creo CAD software. And the winning team in each state will receive an all-expenses-paid trip to Washington, DC. This year’s challenge will be focused on the design and implementation of a UAS to support precision agriculture. And don’t forget to visit our the Real World Design Challenge website.

Einstein Distinguished Educator Fellow Program is Now Accepting Applications
The Albert Einstein Distinguished Educator Fellowship (AEF) Program provides a unique opportunity for accomplished K-12 educators in the STEM fields to serve in the national education arena. Fellows spend 11 months working in a Federal agency or U.S. Congressional office, bringing their extensive classroom knowledge and experience to STEM education programs and/or education policy efforts. Program applications are due November 20, 2014 and must be submitted through an online application system. Click here for more information and access to the online application system.

Northrup Grumman Foundation Excellence in Engineering Education Award
A partnership with Northrop Grumman Foundation and the National Science Teachers Association, this award recognizes excellence in the field of engineering education. The award consists of $5000 for classroom materials and equipment, a cash prize of $3000, and $2000 to attend the NSTA National Conference on Science Education. Eligibility: The applicant must be a K–12 public school science/technology teacher. Individuals must have a minimum of three years’ teaching experience. Download an application or read more about the award.

New Online Course: Integrating STEM Activities Into the Elementary Science Academic Standards
The purpose of this course is to provide educators with the opportunity to understand and experience integration of STEM lessons into the preK–6 science curricula. The course will consist of 10 sessions that will include discussing the benefits of developing STEM literacy in school-age students; defining STEM; experiencing hands-on activities that serve as exemplars for integrating STEM concepts with academic standards for science; understanding how scientific inquiry and engineering design can guide implementing STEM projects in elementary science lessons; and reviewing resources for elementary STEM. As a final project, attendees will develop their own integrated STEM lessons based on a science concept standard they teach at their grade level. For more information, please contact the course instructor, Bob Claymier. The course will be available this month.
Sally Ride EarthKAM Announces 2014 Fall Missions

Students and educators have two chances to participate in Sally Ride EarthKAM this fall. The 2014 fall missions are scheduled to take place Oct. 21-24, 2014 and Nov. 18-21, 2014. Guide your students in hands-on research as they program a camera aboard the International Space Station to take pictures of specific locations on Earth. The optional online curricula at the Sally Ride EarthKAM website are targeted at middle school students but are adaptable for other grade levels. All students and educators are welcome, including participants in afterschool programs. For more information and to register for an upcoming mission, visit the Sally Ride EarthKAM home page. If you have questions about the EarthKAM project, please email ek-help@earthkam.ucsd.edu.

Celebrate World Space Week 2014

Imagine an entire week of space-themed activities to enhance learning. Join educators and space enthusiasts around the world to celebrate World Space Week, October 4-10, 2014. World Space Week is the largest public space event in the world, with over 1,400 events in more than 80 countries held during the week of October 4-10. In 2014, World Space Week encourages the use global navigation satellite systems space-themed activities. Learn more about World Space Week, find educational materials, and register your event.

NASA Recommends Discontinuation of Student Rocket Activity

In 2012, an air pressurized paper rocket launcher being used by an educator failed. This launcher is described in NASA’s Rockets Educator Guide, publications EG-2011-11-223-KSC, pp. 86-90 and EG-2008-05-060-KSC, pp. 86-90. NASA completed an engineering investigation into the failure and determined that the launcher, or design equivalents, should not be used. NASA has removed the launcher design from its website and its education curriculum. Individuals and organizations should immediately discontinue use of the launcher published in the referenced NASA publications. The point of contact for additional information is Diane DeTroye, NASA Office of Education, at nasaedpartners@nasa.gov. NASA requests that your organization assist NASA in disseminating this information as widely as possible throughout the education community.

U.S. Chemical Safety Board Chairperson Warns Against Use of Methanol

“Today I am calling on all schools, museums, and science educators to discontinue any use of bulk methanol—or other similar flammables—in lab demonstrations that involve combustion, open flames, or ignition sources. There are safer alternative ways to demonstrate the same scientific phenomena, and many teachers are already using them. Any use of methanol or other flammables should be either avoided completely or restricted to minimal amounts, which have been safely dispensed at remote locations. Bulk containers of flammable liquids must never be positioned or handled near viewing audiences, especially when there are potential ignition sources present.” Read more.

NEWS FROM NASA

(NASA Education Express Message—August 25, 2014)

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**Future City Competition**

This year’s Future City Competition essay question is “Feeding Future Cities,” and students will be required to design an innovative way to provide food in metropolitan centers. Many thousands of years ago, humans learned to domesticate animals and grow plants for food. Because we no longer needed to hunt and gather, we could stay in one place and start to build cities. It was the beginning of civilization. Today, agriculture is the largest global enterprise on earth. And while some regions still farm in ways similar to our ancient ancestors, for most of the world the mechanization of planting and harvesting, chemical fertilization and pest control, advanced irrigation, and other modern farming tools and techniques led to increased crop output—which, in turn, became a major contributing factor to rapid population growth. The 2014-2015 Future City Competition is expected to attract over 35,000 students from various middle schools in regions located across the country. Visit the Future City page designed expressly for educators.

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