



# TIDE *Inside* E

Technology, Innovation, Design, and Engineering

Friday, December 14, 2007



*The ITEA Staff and  
Board of Directors  
Wish You a Joyous Holiday Season  
and a  
Happy and Prosperous New Year.*

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The International Technology Education Association

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## You're Invited!

To two special sessions at **ITEA's 70th Annual Conference and Exhibition February 21-23, 2008** in Salt Lake City, UT. The first is with NASA educator astronaut **Barbara Morgan**, and the second will feature **Dr. Robert Ballard** of **The JASON Project**.

**Barbara Morgan** is NASA's first educator mission specialist, having served as backup to payload specialist Christa McAuliffe in the Teacher in Space Project. Don't miss what is sure to be a once-in-a-lifetime keynote address by Barbara Morgan.



**Dr. Ballard** is founder of **The JASON Project**, a nonprofit subsidiary of the National Geographic Society, where students learn by "joining" scientists on their missions. He will share how **The JASON Project** offers students and teachers a distinctive opportunity to learn through exploration and discovery.

Please join us at the Salt Palace Convention Center **February 21-23** to hear these experts in your field and also to participate in over 100 professional development learning sessions, educational tours, workshops, and great networking opportunities. These offerings will give you real "take home value" that you can implement directly into your classroom environments.

And be sure to register before the **January 18, 2008 deadline** (that's next month!) for fantastic preregistration savings and a chance to win a \$100 Visa gift card. The ITEA conference hotels are filling up fast, so don't delay in making your housing arrangements.

Salt Lake—relax, breathe in the beauty of the mountains, and be inspired while enjoying an invigorating professional experience at the ITEA conference. We look forward to seeing you there!

Go to [www.iteaconnect.org/Conference/conferenceguide.htm](http://www.iteaconnect.org/Conference/conferenceguide.htm) for all the latest conference information.



## Congratulations, AutoDesk!

AutoDesk's AutoCAD! software has just turned 25—**Happy 25th birthday AutoCAD!** As it cleans up from the birthday celebration, AutoDesk reports that it will join other companies, like GreenBuild and Lucid Design Group, to develop software that allows designers and engineers to measure environmental impact and help make green design an easier process. Visit [www.news.com/8301-11128\\_3-9814866-54.html?tag=nefd.blgs](http://www.news.com/8301-11128_3-9814866-54.html?tag=nefd.blgs) for the complete article from CNET News.

Source: IDSA  
designBytes, Nov.19.2007

## ITEA's Board of Directors Holds Fall Meeting

At the ITEA Board of Directors meeting in November, President **Andy Stephenson** led the Board through a rigorous agenda that included strategic discussion issues pertaining to positioning technology, innovation, design, and engineering (TIDE); addressing outreach; teaching innovation; and increasing membership.

Action items completed included a revamping of the Elections Committee structure to include six persons consisting of (2) classroom teachers, (2) teacher educators, and (2) supervisors from across the regions. These appointed individuals will serve on a staggered three-year rotation basis

with one third of the committee rotating off each year. This committee will meet annually at the ITEA conference.

Other action included passed motions to: assess, realign, and develop new (proposed) guidelines for the Regional Director positions; have a higher visibility at the secondary school principals' conference; start a writing campaign placing articles in other educational association journals; look at a name change for the association; place the 2010 conference in Charlotte, NC; approve the 2009 conference theme; and look

into the possibility of creating additional learning communities.

Discussion also took place on numerous functional items pertaining to the association, including strategies for adding revenue to the association's finances, adjusting staff guidelines, approving an award to be given at the Salt Lake City Conference, and logistics for the coming strategic planning meeting.

The Board will next meet prior to the Salt Lake City Conference in February. For more information pertaining to ITEA and its Board of Directors, go to [www.iteaconnect.org](http://www.iteaconnect.org).

## ITEA is Seeking a Few Good Candidates!

### *ITEA Classroom Teachers and ITEA Region 3 Teacher-Educators*

ITEA is seeking candidates for the office of **President** as well as two **Regional Director** positions. President is a three-year commitment that includes terms as President-Elect, President, and Past President. The Presidential candidate for the 2008 ballot must be a **CLASSROOM TEACHER**.

Regional Director candidates for the 2008 ballot should be a **CLASSROOM TEACHER from Region 1** and a **TEACHER-EDUCATOR from Region 3**. Regional Directors work with state affiliates in their region to keep them abreast of ITEA happenings, and vice-versa. It's a fun position that can create some good exposure. ITEA is seeking a few good candidates for each of these positions. Interested? Contact **Len Litowitz** at [len.litowitz@millersville.edu](mailto:len.litowitz@millersville.edu) or Elections Committee Chairperson, **Steve Price**, at [sprice@clayton.k12.ga.us](mailto:sprice@clayton.k12.ga.us).

## International Members

ITEA recently received a communication from **Lung-Sheng Steven Lee**, who wrote that he was visiting universities in the Fukuoka, Japan area where he was joined by **Dr. Hidetoshi Miyakawa, DTE**, who is also a very active ITEA member. The photo at right was taken in front of Fukuoka Tower, which is 234 meters tall.



Dr. Lee teaches at least one course per semester at Taiwan Normal and is President of National United University (NUU) in Miaoli (about 90 minutes far from Taipei by car). In September he was voted into his second term as president at NUU (August 2008-July 2012). Congratulations, Dr. Lee!

Lung-Sheng Steven Lee can be reached at [lslee@nuu.edu.tw](mailto:lslee@nuu.edu.tw).

## Technology Education Advisory Council Meets in Louisville

ITEA's **Technology Education Advisory Council (TEAC)** met in November to address four topics important to the direction of the profession, including: (1) visions of the future, (2) engineering education initiatives, (3) sustaining global competitiveness, and (4) addressing critical needs of the U.S. science, technology, engineering, and mathematics education system. Members of the advisory council come from the corporate world, governmental agencies, selected associations, and the technology teacher profession. TEAC was first created in 1981 to gain input from experts outside of the immediate field to:

- Recommend ways of resolving any discrepancies between the programs and philosophies of teaching education and current industrial/technological practices.
- Recommend content direction to improve the relevancy of technology education.
- Suggest methods of improving the public's perception and

understanding of technology education.

- Assist in the cooperation between industry and education to improve the education process.

The ITEA Board of Directors participated in this day-long meeting and later used the discussions to formulate directions and support decision making during the Board meeting that immediately followed. Current **TEAC** members include **Betty Shanahan** (Society of Women Engineers), **Elizabeth Strickland** (National Science Board), **Andrea Prejean** (National Education Association), **Rodger Bybee** (Biological Sciences Curriculum Studies), **Michael K. Daugherty** (University of Arkansas), **Gregory Keenan** (Virent Energy Systems), **Tom Pachera** (Ann Arbor Michigan Public Schools), **Melissa Morrow** (Sarasota Florida County Schools), **Michael Mayo** (WGBH-Boston), **Michael Madison** (Ann Arbor Michigan Public Schools), and **Michael Stief** (Intelligencer Printing Company). Guests and presenters at this meeting included **M. James Bensen**, **DTE** (Bemidji State University), **Kim Bess** (San Diego, California County Schools), **Greg Pearson** (National Academy of Engineering), and **Henry Lacy** (Kentucky State Department of Education).



For more information pertaining to ITEA and its Technology Education Advisory Council, go to [www.iteaconnect.org](http://www.iteaconnect.org).

## Resources for Teaching about the Impacts of Technology

### Compute Your Ecological Footprint

Humans need resources to survive, and we call these resources "the L.A.W.S. of nature": Light (Energy, really), Air, Water, and Soil (or Shelter if you prefer...). We also tend to use more than the basic essentials. Everything we use, from toothpaste to televisions, came from the earth in one form or another. This is not a bad thing as long as we don't take more than the earth can provide.

[www.islandwood.org/kids/impact/footprint.php](http://www.islandwood.org/kids/impact/footprint.php)

### Ecological Footprint Quiz

Ever wondered how much "nature" your lifestyle requires? You're about to find out. This Ecological Footprint Quiz estimates how much productive land and water you need to support what you use and what you discard. After answering 15 easy questions you'll be able to compare your Ecological Footprint to what other people use and to what is available on this planet.

[www.earthday.net/footprint/index.asp](http://www.earthday.net/footprint/index.asp)

The above resources were shared by **Mike Fitzgerald** via **IdeaGarden** and **Innovation Station**, two of ITEA's online learning communities. For more information about ITEA's learning communities, visit [www.iteaconnect.org/Networking/learningcommunities.htm](http://www.iteaconnect.org/Networking/learningcommunities.htm).



## CTTE Seeks Awards Nominees

ITEA's **Council on Technology Teacher Education (CTTE)** offers several **research awards** for its members. These awards are related to: outstanding research in technology education; a research incentive grant; and the Silvius-Wolansky Award for outstanding publication in our field. Please consider nominating yourself or a colleague.

CTTE sponsors an annual award for outstanding scholarly research in the field of technology teacher education that is presented to a member or members of CTTE who have provided significant service to the profession through research and related scholarship in the preparation of technology education teachers or enhancement of professional practice in technology education. The **CTTE Outstanding**

**Research Award** consists of a framed award certificate and a monetary award of \$1,000. Recipients of the award are asked to submit a manuscript of their work to the **Journal of Technology Education**.

CTTE is also sponsoring an **applied research grant** for technology education graduate students, full-time technology teachers, technology teacher educators, and administrators. For 2008, the Research & Scholarship Committee will endeavor to award up to \$1,000 of financial support for a research proposal that examines the teaching and learning process in technology education

The **Silvius-Wolansky Award for Outstanding Scholarly Publication in Technology Education** is cospon-

sored by the G. Harold Silvius Foundation and the Council on Technology Teacher Education (CTTE). The award is presented annually by CTTE to an author (or coauthors) whose scholarship has enhanced the technology education profession.

For details, criteria, or information on submitting proposals or to request a nomination form, contact **Charlie McLaughlin, DTE**, CTTE Research & Scholarship Committee Chair, at [Cmclaughlin@ric.edu](mailto:Cmclaughlin@ric.edu).

**All submissions are due on or before December 21, 2007.**



## Participate in National Research Project on K-12 STEM Resources

**Project Tomorrow** is seeking 100 educators to participate in **Project TestDrive**, a national research study on the classroom effectiveness of the online K-12 science, technology, engineering, and math resources from the **National Science Digital Library** (<http://nsdl.org/>).

The National Science Digital Library, funded by the National Science Foundation, is a free, online library for science, technology, engineering, and math resources with links to one million resources from over 500 unique collections.

### Why participate?

**Project TestDrive** provides a unique opportunity to use innovative science, math, and technology re-

sources from a trusted source—the National Science Digital Library. During this project you will have the opportunity to try out the resources free-of-charge and network with like-minded professionals as you:

- Engage your students in learning through innovative science, technology, engineering, and math resources.
- Develop students' critical-thinking and problem-solving skills.
- Share effective teaching practices with peers across the nation.

### As a participant you will:

- Identify, implement and evaluate 7-10 online resources from the National Science Digital Library.
- Participate in Just-in-Time training on the online resources from

the National Science Digital Library.

- Secure Parent/Guardian Permission for your students to participate in the national research study.
- Collaborate with other K-12 educators through threaded discussions, seminars or conference calls.

The research project will be open between December 2007 and June 2008. For additional information, contact **Laurie Smith**, Project Tomorrow, at [Laurie\\_Smith\\_Project\\_Tomorrow@mail.vresp.com](mailto:Laurie_Smith_Project_Tomorrow@mail.vresp.com). Or download and return the completed application today! ([www.tomorrow.org/docs/test-drive%20application%20form%202007\\_08.pdf](http://www.tomorrow.org/docs/test-drive%20application%20form%202007_08.pdf)).

## NASA Announces Opportunities for Students

### Aeronautics Competitions for High School and College Students

The Fundamental Aeronautics Program of the Aeronautics Research Mission Directorate at NASA Headquarters has announced a new aeronautics competition for high school and college students for the 2007-2008 academic year. (<http://aero.larc.nasa.gov/competitions.htm>)

High school students are challenged to write a research paper to explain ideas for a future aircraft that could become the "DC-3" for cargo and passengers in the year 2058. Descriptions should be well informed and include sections on fuel, environmental effects, noise levels, runway length and condition, operating costs, passenger and cargo loads, and service operations. Notice of intent for high school entries is due on **December 15, 2007**.

College students are invited to design the next generation, twenty-first century, "DC-3"-type aircraft. Some of the design considerations include reduced environmental impact, reduced noise, daily operations on short runways, cost analysis for production and operation, passenger and cargo limits, structure and materials, and engines. Students should also briefly describe three valid scenarios for potential use of this vehicle in the year 2058. Notice of intent for college entries is due on **January 19, 2008**.

### Twenty-First Century Explorer Podcast Competition

What do you think is NASA's greatest exploration achievement in the past 50 years, and why? That is the question NASA is asking students for the **Second Annual 21st Century Explorer Podcast Competition**. Stu-

dents will create an audio recording or video, running one minute or less, with their answer to the question.

The contest is open to U.S. citizens, ages 11 to 18. Entries will be judged on content, creativity, execution, clarity, and overall impression. The 15 finalists in each format (audio and video) and each age category will be displayed on the contest website, where the public will vote for and select a "People's Choice" winner. Prizes will also be awarded for first, second, and third place. Winners will be announced on the website February 28, 2008.

Entries are being accepted now through **January 4, 2008**, or when the first 1,000 entries in each category

are received. For more information, including tips for creating audio and video podcasts, visit [www.explorationpodcast.com/](http://www.explorationpodcast.com/).

### Registration Is Open for the 15th Annual Great Moonbuggy Race

High school and college students design and build a vehicle that addresses a series of engineering problems similar to those faced by the original lunar-roving vehicle team. Each school may enter up to two teams. The race will take place April 4-5, 2008, in Huntsville, Ala., at the U.S. Space & Rocket Center. Entries must be received by **February 1, 2008**. For more information about the competition and to register online, visit <http://moonbuggy.msfc.nasa.gov/index.html>.

## A **HOT** Special for the **COLDEST** months!



**Now Available!** Engineering byDesign™ Professional Development Guide for Advanced Design Applications and Advanced Technological Applications (ProBase)

The Engineering byDesign™ (EbD™) Professional Development Guide provides an overview of the concepts and structure of the Advanced Design and Advanced Technological Applications courses. The Guide explores the framework for constructivist learning, how Learning Cycles are used within the course, and helps the teacher and supervisor to develop a deeper understanding of the professional development needs of the curriculum. Developed as a part of the NSF-funded ProBase Project, the Guide is fundamental to the implementation of standards-based curricula.

P229CD - \$24.50; *Special Introductory Price for Members: \$16.50*  
Call 703-860-2100 to order! Special price expires on 1/31/08.  
Shipping fees apply.

## Student Opportunities

### **Toyota Seeks Nominations for \$1.12 Million in College Scholarships**

**Toyota Motor Sales, U.S.A., Inc., (TMS)** is searching the United States for 100 of the brightest, most community-minded high school seniors. Those chosen to represent the **2008 Toyota Community Scholars** class will share in a total award of \$1.12 million in college scholarships. While academic performance is a prime factor in the selection process, the distinguishing characteristic will be the overall impact of the student's contribution in the area of community service. The scholarships are valued at \$20,000 or \$10,000 each, over four years, for study at a four-year college or university starting in the fall of 2008.

Students must be nominated by their school. Nomination materials must be submitted to Educational Testing Services, postmarked by **January 4, 2008**. Nomination forms are available online at [www.toyota.com/communityscholars](http://www.toyota.com/communityscholars).

### **Construction Education Scholarships Available From ConstructMyFuture.com Program**

Applications are now available for construction education scholarships funded by the **ConstructMyFuture.com** website, an industry initiative that promotes construction as a rewarding career choice. The ConstructMyFuture.com annual scholarship program is open to students and construction industry professionals, with the funds to be used for higher-education tuition or the purchase of tools to improve worker productivity.

Deadline to apply is **February 4, 2008**. Application details and entry forms are available online at [www.constructmyfuture.com](http://www.constructmyfuture.com).

### **HP 2008 Technology for Teaching Grant Information Now Available**

The **HP Technology for Teaching Grant Initiative** is designed to support the innovative use of mobile technology in K-16 education, and to help identify K-12 public schools

and two- and four-year colleges and universities that HP might support with future grants. In 2008, HP will award nearly \$7 million in cash and equipment to K-12 schools in the U.S. and Puerto Rico, and to colleges and universities throughout North America (Canada, Puerto Rico, and the U.S.).

Visit this site—[www.hp.com/hpinfo/grants/us/programs/tech\\_teaching/index.html](http://www.hp.com/hpinfo/grants/us/programs/tech_teaching/index.html)—on Tuesday, **January 8, 2008** to begin the application process. The deadline for submitting proposals is Thursday **February 14, 2008**, 5 p.m. (Pacific time).

(Source: Gary Wynn on IdeaGarden.)

### **High School Engineering Competition**

**TEAMS (Test of Engineering Aptitude, Mathematics, and Science)** is a very unique high school competition designed to challenge students to solve real-world engineering scenarios in a fun and fast-paced environment that fosters creativity, teamwork, critical thinking, and peer-to-peer cooperation. It is a one-day, two-part competition.

Teams of four to eight students in Grades 9-12 work together in an open-book, open-note, open-discussion competition, giving a real-world application to knowledge they have acquired in the classroom and showing the practicality and versatility of engineering in our society.

If you are interested in more information go to [www.jets.org/teams](http://www.jets.org/teams) or contact **Scott G. Brown** at 678-423-2000 (ext. 330 or 298) or email: [scott.brown@cowetaschools.net](mailto:scott.brown@cowetaschools.net) or [scott.brown@numail.org](mailto:scott.brown@numail.org).

## Visual Communicator—New “Ask Mr. Z” Show

**Rob Zdrojewski**, Technology Education Teacher at Amherst Middle School in New York, has been inspired to create a regular web TV show called **Ask Mr. Z**. The premise for the show is answering common questions from educators about Visual Communicator uses in schools. Questions might include camera and microphone hardware recommendations, facility location, equipment connections, posting online, lighting, etc.

There are four episodes to date, with more planned soon. Take a look at them on his Streaming Video Showcase at [www.amherstschoools.org/web-pages/ATechTV/video2.cfm?subpage=17615](http://www.amherstschoools.org/web-pages/ATechTV/video2.cfm?subpage=17615), and be sure to subscribe if you'd like to be notified by email of new episodes every month.

Mr. Z also has plans for a professional VC3 training DVD series. Stay tuned to [www.AmherstTechnologyRocks.org](http://www.AmherstTechnologyRocks.org).

## Conference Opportunities

**February 7-9, 2008** The **American Association of Colleges for Teacher Education (AACTE)** will celebrate its **60th Annual Meeting and Exhibits, *Quality Matters: Our Commitment to All Learners***, at the Hilton New Orleans Riverside, New Orleans, LA. Learn more at [www.aacte.org/Events/meeting\\_exhibits.aspx](http://www.aacte.org/Events/meeting_exhibits.aspx).

- For daily news briefs on teacher education issues please visit [www.aacte.org/News/default.aspx](http://www.aacte.org/News/default.aspx)
- For education-related blogs and daily newspapers please visit [www.aacte.org/News/education\\_news\\_blogs.aspx](http://www.aacte.org/News/education_news_blogs.aspx)
- For grant opportunities for K-12 teachers and institutions of higher education please visit [www.aacte.org/News/grants\\_awards.aspx](http://www.aacte.org/News/grants_awards.aspx)

**February 28-March 1, 2008** The **Annual Virginia Children's Engineering Convention** will be held at the Holiday Inn Select, Koger South Conference Center, Richmond, VA. Visit the website at [www.vtea.org/ESTE/](http://www.vtea.org/ESTE/) for complete information.

**March 28-29, 2008** The **Ohio Technology Education Association (OTEA) Annual Spring Conference** will be held at Worthington Kilbourne High School in Worthington, OH. The conference will be an extension of the 2007 OTEA Fall Conference, with topics of discussion focusing around STEM and other educa-

tional topics. Visit [www.otea.info](http://www.otea.info) for the latest details.

**April 13 - 16, 2008** The **13th Annual Technology in Education Conference and Tech Exposition, TechEd 2008**, will take place at the Ontario Convention Center in Ontario, CA. The Community College Foundation is calling for presentations for this event, the theme of which is *Realizing the Vision*. A full description of topics and the Abstract submission process is available online at [www.TechEdEvents.org/2008](http://www.TechEdEvents.org/2008). Registration is now open, and the Program will be available after **January 1, 2008**.

**May 1-2, 2008** Save the date for the **2008 New Jersey Technology Education Association (NJTEA) Conference**, which will take place at the Hyatt in New Brunswick, NJ. More information and registration materials will be available soon.

**May 8-10, 2008** Hold the Date for '08 for the **Ontario Council for Technology Education's (OCTE) 2008 conference**, to be held at the Nottawasaga Inn in Alliston, Ontario. The Council is now accepting speaker and seminar ideas. Contact [joe.hogan@rogers.com](mailto:joe.hogan@rogers.com) for information.

**May 12, 2008** The **Connecticut Technology Education Association (CTEA)** will hold its **75th Anniversary Spring**

**Conference** at the CCSU Student Center. Look for details at [www.cteaweb.org](http://www.cteaweb.org) or contact **Jerry Stevens**, CTEA Conference Chair, at [gstevens@monroeps.org](mailto:gstevens@monroeps.org) or 203-452-2281.



**July 4-6, 2008** The **Second International Symposium on Educational Cooperation for "Industrial Technology Education" – *Developing Human Resources for Making Things***, will be held at Karlya City Industrial Promotion Center in Karlya City, Japan. Visit [www.auetech.aichi-edu.ac.jp/bsite2008](http://www.auetech.aichi-edu.ac.jp/bsite2008) for details.

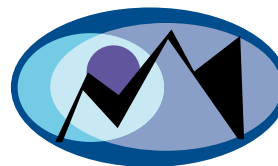
**August 6-8, 2008** The **Virginia Technology Education Association (VTEA)** will hold its **Annual Conference** at the Virginia Beach Resort Hotel and Conference Center in Virginia Beach, VA. Visit [www.vtea.org/conference/annual.html](http://www.vtea.org/conference/annual.html) for complete information, including presenter application forms (deadline for submission of applications to present is **January 1, 2008**). Or contact **John Ledgerwood**, Conference Chair, at [john.ledgerwood@vbschools.com](mailto:john.ledgerwood@vbschools.com) or **Dr. Lynn Basham**, State Specialist for Technology Education, at [lynn.basham@doe.virginia.gov](mailto:lynn.basham@doe.virginia.gov) for additional conference information or questions.

### January 18, 2008

is the **Preregistration deadline** for money-saving registration discounts for **ITEA's Salt Lake City conference**, taking place February 21-23, 2008. **Register early and save!**



Salt Palace Convention Center



International Technology Education Association  
**SALT LAKE CITY**  
 February 21-23, 2008

**[Click here to register.](#)**

### February 21-23, 2008

**ITEA's 70th Annual ITEA Conference, *Teaching TIDE With Pride***, will be held in Salt Lake City, UT.

The latest information and details are available on the ITEA website at [www.iteaconnect.org/Conference/conferenceguide.htm](http://www.iteaconnect.org/Conference/conferenceguide.htm).