



# TIDE

Inside

Technology, Innovation, Design, and Engineering

Monday, July 9, 2007

## Plans for ITEA Salt Lake Conference Under Way

Presentation applications are now in, and the Planning Committee is hard at work to bring you the best of the best at ITEA's 70th Annual Conference and Exposition in [Salt Lake City](#), February 21-23, 2008. The theme of the Salt Lake City conference is "Teaching TIDE With Pride."

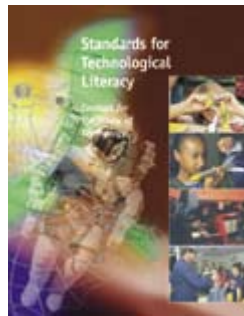
If funding to attend the conference is an item of interest to you, click [here](#). And be sure to visit the ITEA website at [www.iteaconnect.org/Conference/conferenceguide.htm](http://www.iteaconnect.org/Conference/conferenceguide.htm) for the most up-to-date details.



Salt Palace Convention Center  
Salt Lake City, Utah.

## Riding the TIDE – Grades 3-4 Grant

ITEA has received a **National Education Association grant** to create four units focusing on the TIDE concept at grade levels 3 and 4. There will be one unit each on technology, innovation, design, and engineering, with each unit being aligned with the technological literacy,



math, and science standards. This work will be completed and launched at the 2008 ITEA Salt Lake City Conference where attendees can expect to see a special interest session featuring the finished product. The materials will be designed to be user friendly for elementary teachers who have no

TIDE-related background, will be written for the elementary school teacher using instructional units, and will be aligned with enrichment classes or school-based clubs. This grant will be directed by ITEA members, **Katherine Weber** and **Daniel Engstrom, DTE**, of California University of Pennsylvania. Watch for more information and anticipate the presentation at the coming February ITEA Conference.

## Other Electronic Newsletters of Interest

ITEA has recently received copies of several electronic newsletters that may be of interest to technology education professionals.

The **Connecticut Technology Education Association's** newsletter, **CTEA Trendsetter**, is published three times a year and is packed with articles of interest to those in the Northeast as well as the larger TE community. Contact Don Schaer at [donschaer@optonline.net](mailto:donschaer@optonline.net) to obtain a copy or to subscribe. Be sure to write "CTEA Newsletter" in the subject line.

**t-news** is a publication of the **Technology Education Association New Zealand (TENZ)**. It is a wonderful update on what is happening in tech-

nology education "down under" and sometimes the larger international community as well. Contact Doug Buchanan at [DBuchanan@futureintech.org.nz](mailto:DBuchanan@futureintech.org.nz) if you are interested in subscribing.

**designBytes** is the electronic newsletter of the **Industrial Designers Society of America (IDSA)**. It contains the latest design news, sneak peeks of features on IDSA's website, links to interesting articles

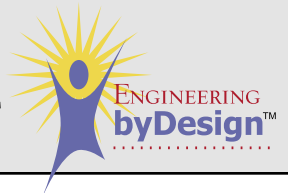
elsewhere, and upcoming articles in *Design Perspectives (DP)*, IDSA's newsletter. To subscribe, email [design-Bytes@idsa.org](mailto:design-Bytes@idsa.org).

Inside TIDE is a free service of



The International Technology Education Association

Brought to you by  
Engineering byDesign™



## EbD™ I<sup>3</sup> workshop

During the first weeks of June, ten outstanding teachers of Manatee County, Florida received cutting-edge training in a new standards-based curriculum. The EbD™ Invention, Innovation, and Inquiry (I<sup>3</sup>) units for technological literacy is a project funded by the National Science Foundation. Each unit has detailed learning activities including brainstorming, visualizing, testing, refining, and assessing technological designs that are designed to integrate mathematics and science with technology. During the two-day learning quest, each teacher was given the entire curriculum as well as specific training in three individual units. During the first day, the group worked on a project entitled "School Spirit." Each pair designed/redesigned graphics,

including a logo. T-shirts were later created to demonstrate print communication. During day two, the groups created innovations using simple handheld items. A new and improved ping-pong paddle was presented to our new group of engineers. Other groups redesigned toothbrushes, flashlights, and a hairbrush. With the new curriculum and ten newly trained and extremely motivated teachers ready to roll with EbD™ I<sup>3</sup>, the students of Manatee County will be ahead of the nation in the areas of critical thinking, science and engineering, and technical skills that will be needed to




Front row: Susan Nudd, Ellena Huston, Cheryl McGrew, Debbie Smith, and Doris Byal

Second row: Susan Roe, Diana Jorgensen, Kim McAfee, Mindy Swartling, Vicki Stelzer, Debbie Bahu, and Karen Newhall



be viable citizens of tomorrow. This training was funded by The Manatee County Adult, Career and Technical (ACT) Education Department.



## Green Beans on the Moon?

STEM educators across the U.S. will work together this summer to prepare to bring the NASA STS-118 Design Challenges into classrooms. This educational initiative coordinates with Space Shuttle Endeavour's STS-118 Mission and the first flight of Educator Astronaut and Mission Specialist Barbara R. Morgan. WILL YOU AND YOUR SCHOOL OR DISTRICT BE PART OF THIS MISSION?

**CURRICULA AVAILABLE SUMMER 2007 FOR FALL IMPLEMENTATION:**

- Elementary, Middle, and High School Design Challenges.
- Standards-Based Units Complete with Assessments and Teacher Resources.

These comprehensive units:


- Reflect a Unique Partnership between NASA Scientists and Engineers and Education Professionals.
- Incorporate Leading Edge Insight and Practical Experiences for Students on How NASA Works and Plans.

**Workshops Are Filling Up Now for Summer 2007!**  
 Register NOW – go to [www.teachstem.net](http://www.teachstem.net)


**Find a Location Near You!**

July 19, 2007:	Arlington, TX
July 24, 2007:	Sewell, NJ
July 25-26 2007:	Millersville, PA
August 1-2, 2007:	Sacramento, CA
August 2, 2007:	Hampton, VA (Elementary Only)

For more information: [www.teachstem.net](http://www.teachstem.net); [smeade@iteaconnect.org](mailto:smeade@iteaconnect.org)



Developed through the Center to Advance the Teaching of Technology and Science (CATTS)



Coordinates with the Engineering byDesign™ Comprehensive Model Program

## Attention Elementary School Teachers!

Did you know that there is an ITEA membership created just for you? The **ITEA Elementary School Group Membership** is dedicated to promoting technological literacy, providing resources, and offering professional development for Elementary School Technology Education, Children's Engineering, and Design and Technology.

Group membership as an elementary school entitles the school to two subscriptions each of ITEA's journals, **Technology and Children** (a \$70 value) and **The Technology Teacher** (a \$160 value), member discounts on ITEA publications, and the member rate on ITEA Annual Conference registration for any and all teachers in the member school (a \$155 value per teacher).

If you prefer an **individual ITEA membership** instead, you might also want to consider participating in the Technology Education for Children Council (TECC), ITEA's affiliate council that is for and about elementary

technology education. Professional Membership in both ITEA and TECC includes:

- **Subscriptions** to both **Technology and Children** (4 issues) and **The Technology Teacher** (8 issues).
- **Professional Liability Insurance** – Available at the member rate of only \$99 for \$1M of coverage.
- **TECC Monographs** – This year the TECC board is working to publish a **Best of Technology and Children** monograph.
- **TECC Website** – Find additional resources and learn about conference opportunities at [www.ncat.edu/~childres/teccssns.html](http://www.ncat.edu/~childres/teccssns.html).
- **TECC Newsletter** – TECC has recently established an electronic newsletter so elementary school teachers and principals can share ideas and keep in touch with each other.
- **TECC Conference Program** – TECC's VP for Programs develops a set of workshops and



symposia especially designed for the professional development of elementary school teachers and principals.

- **Technological Literacy Standards** – Gain access to ITEA's NSF-NASA funded publication, **Standards for Technological Literacy**, and many other related resources at member rates. Participate in the process of developing standards-based information as a member of the profession.
- **TTTe** – The electronic version of **The Technology Teacher** has resources in addition to the regular Technology Teacher journal.

Learn more about teaching technology education in the elementary school at [www.iteaconnect.org/Resources/PressRoom/TE%20for%20Elementary%20School.pdf](http://www.iteaconnect.org/Resources/PressRoom/TE%20for%20Elementary%20School.pdf).

*The Technology Education for Children Council is an affiliate council of the International Technology Education Association.*

### Changes

**Professor Ming H. Land** is retiring as a professor of technology at Appalachian State University on July 1, 2007, will continue to teach there as professor emeritus this fall, and plans to return to Taiwan in 2008. Congratulations, Dr. Land, on a long and successful career.

## New Elementary Materials Available in English and Spanish

**CATAVIA KIDS** has developed materials for the PC and Mac computers that are for both English- and Spanish-speaking students pertaining to flight and aviation. **The Black Box** is a CD with animations,

games, videos and more for Grades 3-6. **Power Flights** (middle school) covers the history of aviation from early inventors and moves toward aviation policy games, addressing industry-wide problems dealing with

budgets. The final CD, titled **Aviation Math and Science** (Grades 4-6), is an interactive version of workshops that are available for the other two products. These materials can be found at [www.cataviakids.com](http://www.cataviakids.com).

## Business Leaders Take New Approach to STEM Education Reform

Smart businesses take a disciplined approach to resource allocation—they determine which investments will have the greatest impact on the health and performance of the company and invest accordingly. A national network of business/education/policy coalitions plans to apply that same principle to increase the education and workforce pipeline in science, technology, engineering, and mathematics (STEM).

The National Alliance of State Science and Mathematics Coalitions (NASSMC) has announced the establishment of the **STEM Accelerator Initiative (SAI)**, a program created to fill a critical void in the STEM education landscape, providing second-stage support to STEM education programs that are proven to impact the education/workforce pipeline from Grades PreK–16 and beyond.

While any number of groups have defined the challenges and barriers facing STEM education, solutions have been more elusive. That does not mean, however, that solutions do not exist. There are effective programs scattered across the country that do positively impact the U.S. technical workforce. These islands of excellence

can be found all over the country, inside and outside the classroom, engaging students and helping them to succeed in science, mathematics, and related areas in real and measurable ways. It is these programs that SAI serves.

SAI offers a range of services: financial support, partnership development, community relations assistance, and operational expertise as needed. This support is tailored to the needs of the program and is specifically intended to help successful programs become sustainable or to help sustainable programs scale.

The Accelerator Initiative will make significant and varied investments in helping proven educational programs move towards the next stage of success. It offers support only to those programs that can provide clear evidence of their effectiveness, and an independent evaluation of identified programs will be made prior to any awards. SAI does not look at programs that should work; it looks for programs that are working.

As an alliance of 42 independent state level coalitions of business, education, and public policy leaders committed to reform in STEM education, NASSMC is in a unique position to launch and manage the Accelerator Initiative. Its state-level presence across the country provides a national network with a clear understanding of local initiatives and local needs.

Watch NASSMC's website at [www.nassmc.org/sai.html](http://www.nassmc.org/sai.html) for more information, or register to receive updates on the STEM Accelerator Initiative by emailing [accelerator@nassmc.org](mailto:accelerator@nassmc.org).



### First Day of School Attire - 2006

YOU CAN DO BETTER.



### WE CAN HELP.

ITEA's TIDE logo shirt helps promote technology education AND resists wrinkles at the same time!

Made by Port Authority, this shirt is light blue with light stone trim.

Start your 2007 school year with your most professional foot forward—all while forwarding the field of technology education.

Sizes S-XL: \$33.00  
Sizes XXL: \$35.00

Order now and get a FREE TIDE static cling decal for your classroom. Offer expires August 31, 2007. While sizes last!

Call 703-860-2100 to order TODAY! Mention Code 0707.



Order now and get a FREE TIDE static cling decal for your classroom. Offer expires August 31, 2007. While sizes last!

Call 703-860-2100 to order TODAY! Mention Code 0707.

## K-12 Alliance Launched to Reverse Declining Participation of Girls in Computing Careers

The **National Center for Women & Information Technology (NCWIT)** has unveiled the K-12 Alliance, a new coalition formed to reverse the trend of fewer girls pursuing careers in computing fields. The Alliance is comprised of 19 organizations dedicated to making computing more accessible and attractive to girls.

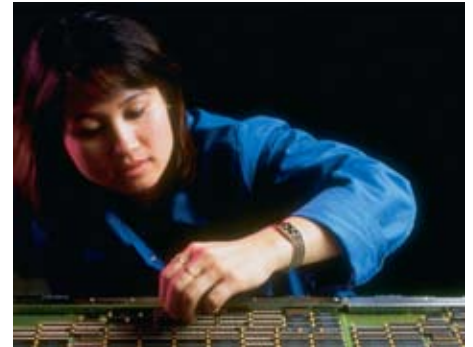
The K-12 Alliance will work to improve understanding of girls' contributions to computing and information technology, remove barriers to their participation in the field, advance the state of computing education at the K-12 level, and raise awareness that computational literacy enables success in many other careers.

By the year 2014, the U.S. Department of Labor predicts that more than one million computing jobs will have been added to the workforce. Yet, despite the strong job forecast for computing careers, NCWIT data reflects an 80 percent decline in the

number of incoming undergraduate women who chose to major in computer science between 1996 and 2004. Currently, only 26 percent of information technology workers in the U.S. are women.

As its first project, the K-12 Alliance will release a new resource kit, "Gotta Have IT," a high-quality resource package for teachers to use in the classroom. The kit contains computing and careers information, digital media, and high-quality posters like the Computer Science Teachers Association's "IT is All About Me" computing careers poster.

This resource visually illustrates the wide array of careers that can be pursued with a computing background. While the kit was designed for use with both male and female students, it is especially inclusive of girls. Links to materials included in the kit will be available online at [www.ncwit.org/ghit](http://www.ncwit.org/ghit).



K-12 Alliance member organizations include: American School Counselor Association, Association for Computing Machinery, The College Board, Computer Science Equity Alliance, Computer Science Teachers Association, Girl Scouts of the USA, Girls, Inc., Georgia Institute of Technology, International Society for Technology in Education, National Center for Women & Information Technology, University of Oregon, National Girls Collaborative Project, Sally Ride Science and Tech Corps. For more information about the K-12 Alliance, please visit [www.ncwit.org](http://www.ncwit.org).

### Opportunity to Assist the Foundation for Technology Education Continues!

By making a \$25 donation to FTE, in addition to helping to move the cause of educating technology teachers forward, you will also receive a 128MB USB flash drive, imprinted with the FTE logo. Flash drives are the fastest and easiest way to share files, data, presentations, and more!



In addition to the contributors listed in the May 9th issue of *Trend-Scout*, the Foundation for Technology Education thanks the following people for their generous support of this current fundraising effort.

Charles Frech  
Edward Denton, DTE

Ethan B. Lipton, DTE  
Jerry C. Olson

Call 703-860-2100 to make a donation today!  
Flash drive supplies are limited!

## Conference Opportunities



**July 16-19, 2007** The Texas CTE Professional Development Conference for the Clusters of Science, Technology, Engineering & Mathematics (STEM) and Manufacturing—*“AchieveTexas, Embracing The Challenge”*—will be held at the Wyndham Arlington-DFW Airport South Hotel in Arlington, Texas. For more information visit [www.ingenuitycenter.com](http://www.ingenuitycenter.com) or contact Julie Moore at 903-566-7378 or [juliemoore@ingenuitycenter.com](mailto:juliemoore@ingenuitycenter.com).

**July 25-28, 2007** The National Board for Professional Teaching Standards (NBPTS) National Conference and Exposition, *Making Connections: Linking Teaching and Leadership*, will take place at the Hilton Washington Hotel in Washington, DC. Details are available at [www.nbpts.org/about\\_us/events](http://www.nbpts.org/about_us/events).

**August 1-3, 2007** The Virginia Technology Education Association (VTEA) will present its 2007 Summer Conference, *From the Sea to the Stars*, at the Hampton Holiday Inn & Conference Center in Hampton, VA. Visit [www.vtea.org/conference/annual.html](http://www.vtea.org/conference/annual.html) or contact [jeswhite@sbo.hampton.k12.va.us](mailto:jeswhite@sbo.hampton.k12.va.us) for information.

**September 14-15, 2007** The Leadership Conference on Aviation and Space Education (LCASE) will be held at the Marriott Crystal Gateway in Arlington VA. Information can be obtained at [www.lcase.info/](http://www.lcase.info/).

**September 27-29, 2007** The Minnesota Technology Education Association (MTEA) will hold its 2007 Fall Conference, *“Tech Ed – Back to the Future II,”* at the St. Cloud Holiday Inn. Visit [www.mtea.net](http://www.mtea.net) or contact Dr. Mike Lindstrom, Fall Conference Program Chair (763-506-1115/W; 763-506-1003/Fax) or Dan Lundborg, Registration Chair (763-506-5467/W; 763-323-7926/H) for general information.

**October 2-5, 2007** TENZ (Technology Education New Zealand), along with Auckland University, will hold its 2007 conference at the Waipuna Hotel, Mt.

Wellington, Auckland, New Zealand. This year’s conference will focus on technological learning communities. Registration and call for abstracts are now open. Visit [www.tenz2007.auckland.ac.nz](http://www.tenz2007.auckland.ac.nz) for details.



**October 11-13, 2007** The state of New Hampshire will host the New England Association of Technology Teachers (NEATT) conference, *A NEATT Foundation to Build Upon*, in Worcester, MA. For immediate updates, check the NEATT website at [www.neatt.org/](http://www.neatt.org/).

**October 16-18, 2007** Save the date for the National Conference on Aviation and Space Education, which will be held at the Crystal Gateway Marriott in Arlington, VA. More information will be coming soon.

**October 18-20, 2007** The Florida Technology Education Association will hold its 78th Annual Professional Development conference, *“Inspiring today, applying tomorrow,”* at the Holiday Inn Hotel & Suites Harbourside in Indian Rocks Beach. Information is available at [www.ftea.com/conferences\\_&\\_workshops.htm](http://www.ftea.com/conferences_&_workshops.htm).

**October 19, 2007** The Technology Education Association of Maryland will present its Seventh Annual Technology Education TECH EXPO 2007 at the Baltimore Museum of Industry, 1425 Key Highway, Baltimore, MD 21230. The theme this year is *TEAM’s All-Star Line-Up: CATTS, PLTW, STEM and VSC*. This is TEAM’s Annual Conference for all technology education teachers and supervisors in the State of Maryland. To help or present, contact Will Johnson, EXPO 2007 Coordinator, at [wjwin@aol.com](mailto:wjwin@aol.com). Additional information can be found at [www.techemd.org/conference.htm](http://www.techemd.org/conference.htm).

**October 25-27, 2007** The Society of Women Engineers will present its 2007 National Conference, *Women IN TUNE with TECHNOLOGY*, at the Nashville Convention Center in Nashville,

TN. Conference tracks are Professional Development, Technology, Career Transition, Academic Diversity, and Leadership Coaching. The conference will include presentations, workshops and sessions, panel discussions, Career Enhancement Series (CES), poster presentations, tours, and local community outreach in addition to its 2007 Career Fair. For complete conference information, visit [www.swe.org/2007](http://www.swe.org/2007).

**October 27, 2007** The Ohio Technology Education Association (OTEA) Fall Conference will focus on the role of technology education as a STEM partner. Contact Timothy Tryon at [Timothy878@zoominternet.net](mailto:Timothy878@zoominternet.net) for details.

**November 1-2, 2007** The 22nd Annual Colorado Technology Education Conference, *Reaching New Heights*, will take place at the Copper Conference Center in Copper Mountain, CO. Complete information about the conference is available at [www.cteaonline.org/](http://www.cteaonline.org/).

**November 8-9, 2007** The Technology Education Association of Pennsylvania (TEAP) will hold its 55th Annual Conference at the Radisson Penn Harris Conference Center in Camp Hill, PA. Visit the TEAP website at [www.teap-online.org/index2.htm](http://www.teap-online.org/index2.htm) and click on “conference” for complete information.

**November 9-11, 2007** The Institute of Electrical and Electronic Engineers (IEEE) will present a special conference in Munich, Germany, *Meeting the Growing Demand for Engineers and Their Educators 2010-2020 Summit*. A call for papers has been issued and can be accessed at [www.ieee.org/web/education/preuniversity/globalsummit](http://www.ieee.org/web/education/preuniversity/globalsummit) along with additional information.

**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/conference-guide.htm](http://www.iteaconnect.org/Conference/conference-guide.htm).

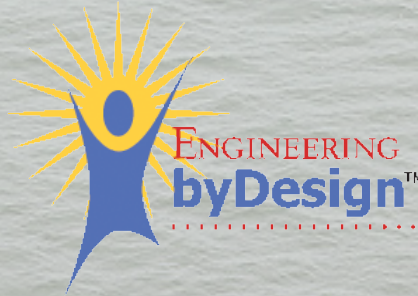
# WE CAN TAKE YOU PLACES

Where is your program headed?  
Is it standing still?

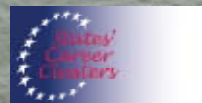
We invite you to choose your destination, because Engineering byDesign™ (EbD™) is taking off! EbD™ is the only comprehensive, articulated, standards-based K–12 solution for technological literacy.

- *Is your need to more fully develop your program?*  
EbD™ offers a comprehensive, K-12 solution.
- *Are you looking to become more standards-based?*  
EbD™ is based on the technological literacy standards as well as national standards in mathematics, science, and in the case of elementary school, social studies, and language arts.
- *Are you looking to develop themes in STEM and IT Pathways?*  
EbD™ maintains integrity through two delivery scenarios: a Pathway Program and Modularizing Components to support STEM, IT, or other academy models.
- *Do you need to offer more options to all of your students, not just a select few?*  
EbD™ can get you there!

EbD™ is going places—and so are the states that are a part of the Center to Advance the Teaching of Technology and Science (CATTS) Consortium. We'd like to take you with us—please let us know how we can help you make that happen!



Don't let your program be left behind—find out more about EbD™ and CATTS today by visiting us online at [www.engineeringbydesign.org](http://www.engineeringbydesign.org) or contact Barry Burke at (301) 482-1929 or via email at [bburke@iteaconnect.org](mailto:bburke@iteaconnect.org)



States' Career Clusters Initiative, 2006, [www.careerclusters.org](http://www.careerclusters.org)