

## **IEEE REGION 5 E-NEWS Volume 2, Number 1, January 2007**

**Welcome** to the second year of the Region 5 Quarterly Newsletters. The format will remain the same except this being the first of the year looking forward or the last of the year just ending, we will move the featured article by the Past Region Director now President of IEEE-USA and the North Area Chair bio to next quarter, and highlight the 2006 accomplishments of our Sections. Several Section Chairs did respond to my request to send me their section year-end reports. All Section Year End Reports are to be submitted to the Region 5 Director no later than the Annual Meeting, 21 April 2007 in Fayetteville, AR.

Most Section's programs, projects and activities are based upon last year's programs, projects and activities. However, for the section to continue to grow and meet the ever greater needs of their membership, each section should add one or two new programs each year to better meet the ever increasing needs of their membership. The Section reports follow in the order they were received and give some ideas that might be applicable to other sections. The first two are the Region's larger, well-managed and extremely active sections. Your section may not have the people or resources to do exactly the same as they reported, but maybe a smaller version can be started this year with enhancements in the following years. Remember, Region and IEEE-USA money follows good ideas. The third is a smaller section, fewer than 1,000 members and they too are well managed and have a full slate of programs, projects and activities for their members.

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### **IEEE Dallas Section 2006 Highlights – Dr. Kaijian Shi (Section Chair)**

1. Section Operations
  - Developed Section Strategic Plan and Execution Plan
  - Awarded outstanding IEEE officers and members at Annual Section Award Banquet
  - Awarded two outstanding IEEE members at Dallas E-week Award Banquet
  - Formed full scale Section officers including a newly created Industrial Relation Officer
  - Organized a full-day IEEE operation training workshop for section and chapter officers
  - Held 9 section monthly seminars
  - Supported IEEE South Area programs and activities
2. Chapter developments

- Formed four new chapters (Education, Power Electronics, Engineering in Medicine and Biology, and Computer Intelligence) and re-activated Industrial Application chapter. Now, Dallas section has 20 active chapters.
- Organized a full-day IEEE operation training workshop for section and chapter officers
- Promoted new chapter mentoring and joint chapter activities cross 20 chapters
- 3. Membership Development
  - Organized a senior member drive which helped over 70 members being upgraded to senior members
  - Membership drives at conferences and universities
  - Sent membership drive message twice in Section Chair's message to all members in Dallas asking them to promote IEEE and introduce new members
  - Emailed membership-drive letters to those members in the arrears list
  - Participated R5 membership development program
- 4. Professional activities and reaching-out program
  - Held four conferences – “Emerge Technology Conference”, “DCAS workshop”, “EMC Colloquium”, “Wireless Multimedia Symposium”
  - Organized two professional training seminars “Fine Tune Your People Skills and Be More Successful at Work” and “SoC Next Decade”, and one tutorial workshop “ZigBee and IEEE 802.15.4 - What's the Buzz?”
  - Technical sponsored two international conferences “Parallel and Distributed Computing and System” and “The Sixth Annual Emerging Information Technology Conference” held in Dallas
  - Co-sponsored an IEEE Distinguished Lecture “Nonlinear Output Regulation: Theory and Application”.
  - Sponsored and participated “Future City” competition and “National Engineer Week”
  - Section Admin Chair gave a speech on IEEE's Code of Ethics to students at DeVry University.
- 5. IEEE R5 Recognitions
  - Dallas section received “Outstanding Large Section Award”

## **IEEE Central Texas Section 2006 Highlights – Clif Denny (Section Chair)**

1. Membership Development.
  - Central Texas Section held 2 events to facilitate section members' application for Sr. Member.
  - There were 47 Central Texas Section members elevated to Sr. Member in 2006.
  - Central Texas Section had 4 members selected for Fellow.
2. Chapter Activities.
  - 15 Active Technical Chapters.
  - Affinity Groups for Women in Engineering, Consultants Network, Life Members, GOLD.
  - 105 Chapter and Affinity Group meetings reported as of October.
  - Central Texas Section formed 2 new Chapters: San Antonio PES, and Education Chapter.
  - UT Austin formed a student PES Chapter.
3. Student Chapter Support.
  - Central Texas Section supported 4 Student Chapters' activities at UT Austin, UT San Antonio, Trinity, and St. Mary's with \$10,000 annual funding.
  - Supported the UT Austin Edison Series with \$1,000.
  - Supported the purchase of Gnu software defined radio for students at UT Austin, \$500.
  - Supported San Antonio Best robotics for \$500.
4. Conferences.
  - Co-Sponsored the Region 5 Annual Meeting in San Antonio, TX.

- Co-Sponsored the IEEE-UT Engineering Management Conference.
  - Sponsored ICICDT Conference (100%) for ED Society.
  - Co-Sponsored the IEMC 2007 Conference.
5. Newsletter.
- Published 'The Analog' monthly and the mid-month reminder for upcoming meetings resulting in 2 membership contacts monthly.
  - Current and archival Section information is maintained on [http://www.ewh.ieee.org/r5/central\\_texas/](http://www.ewh.ieee.org/r5/central_texas/).
6. Meetings.
- Section holds a spring and fall planning meeting with all section and chapter officers.
  - Four Section officers attended the IEEE-USA leadership meeting.
  - Section co-sponsored the IEEE-USA Representative for Grassroots Affairs presentation on Legislative Strategy.
  - Section meeting distinguished speaker on RFID joint with Sp/Com Chapter.
  - Section technical meetings held jointly with Chapters, such as IBM *BlueGene/L, a Massively Parallel Supercomputer*.
  - Section holds semi-annual chapter chairs meetings in Austin and San Antonio to maintain relations.
  - Section co-sponsored Bexar County Chapter of TSPE Ethics Seminar.
7. Joint Technical Society Meetings.
- Section co-sponsored joint technical presentations with AIAA, ASME, and SACCESS.
8. Other local IEEE Section involvements.
- a. A section officer participates in the Greater San Antonio Chamber of Commerce Technology Committee.
  - b. Some members serve as judges on local and national science fairs.
  - c. Some members are actively involved with various K-12 technical school programs.
  - d. Many members are involved internationally with their primary IEEE societies including Comm., SAM, ED, and EM.
  - e. Members serve on IEEE USA committees including Committee on Communications and Information Policy, Awards and Recognition Committee.
    - 1) Section co-sponsors and participates in E-Week in Austin and San Antonio.
    - 2) Section co-sponsors SACCESS (San Antonio Council for the Cooperation of Engineering and Scientific Societies) <http://salsa.net/success/>.

### 3. IEEE Oklahoma City Section 2006 Highlights – Joe Barnard (Section Chair)

#### General Section Functions

- Developed and submitted section goals
- Held 11 Section Meetings including:
  - o 10 Executive Committee Meetings
  - o 4 General Meetings:
    - NWC Tour
    - Distinguished Lecturer: Dr. Deborah A. Trytten
    - Distinguished Lecturer: Professor Lawrence Bernstein
    - December Holiday Awards Banquet

#### Chapter and Affinity Group Activities

- Selected sponsor for development of GOLD Affinity Group
- Computer Society held 5 events which include the hosting of two Distinguished Lecturers
- Engineering Management/Engineering in Medicine and Biology held 2 events
- Power Engineering Society held 3 events including a tour of a large scale wind power facility

- Life Member Affinity Group sponsored the Engineering Student Paper Contest and RoboMaze

**Membership Development and Student Activities**

- Supported nomination for 1 new senior member
- Developed and began execution of recruitment plan focused on local businesses and service entities employing engineering and scientific personnel.
- Developed and began execution of plan to improve and heighten awareness of IEEE organizational benefits to area colleges and universities having engineering and scientific departments without student chapters

**Professional Activities and Section Out-Reach**

- Provided sponsorship for Future Cities Competition and National Engineering Week
- Co-Sponsored or participated in several joint activities including:
  - 2 - Tulsa Joint Meetings
  - ASME Joint Meeting
  - OSPE/Oklahoma State University Joint Meeting
  - OU Banquet
  - ASME Golf Event
- Conducted EXCEL Spreadsheet Training Workshop

**IEEE R5 Recognition**

- Oklahoma City Section Received the "Outstanding Small Section Award"

**Comments** by the editor: (w.whipkey@ieee.org)

Last year, this year and every year, membership development is the lifeline of IEEE.

A comparison of the large and small sections show they both put emphasis on education and support of their Chapters, Infinity Groups and Student activities. A smaller section can start a new program, project or activity for a smaller number of members and then add to this start the next year. When a smaller section does not have the expert in their section to address the "Hot Topics" of the day, they can get help from the Society Distinguished Lecturers available at minimum or no cost from their chapter societies. A lecturer can give a talk at one section/chapter and then go on to give a talk at another section/chapter. Coordination between sections can make this happen. Joint activities between sections and other societies are a good way to bring educational information to the members. Tours are especially rewarding. A tour of a Television station brings out the whole family.

Financial Development is also a high priority to support the activities of the section /membership. It take money as well as people to run a successful section programs, projects and activities. This usually involves some type of conference, seminar, symposium, or workshop. IEEE-USA can help support the non-technical professional programs and projects, which can form the basis for an expanded seminar or workshop. Again, if your section does not have an expert in this area, IEEE-USA has Distinguished Lecturers to educate your members. Blending in a "Hot Topic" can bring in members and non-members alike. Sections can request their chapter societies to hold their annual meetings in their section. Smaller sections can ask that the Region 5 Annual Meeting and Conference be held in their section. Putting together a conference, seminar and/or workshop requires volunteers. But, it also develops a closer bond between members and gives them pride in their accomplishments. This will benefit the section in many ways. And these educational programs are moneymakers to support the section other activities.

#### **4. Region 5 Committee Annual Meeting: and Conference**

Again this year, the Region has authorized the Ozark Section to hold a Region 5 Conference prior to the Annual Meeting at the University of Arkansas Continuing Education Center (adjacent to the Radisson Hotel), Fayetteville, AR on April 20, 2007. The technical sessions, tutorials and short courses will be coordinated to provide a comprehensive and well-balanced program. The conference is intended to provide a forum for the exchange of information on state-of-the-art electrical engineering research. From the outline of the Call for Papers, it will address many "Hot Topics" we work with or need to know about. Come a day early on Friday before the Saturday Annual Meeting and attend the Region 5 Conference. For more information:  
<http://www.2007ieeer5conference.com>

The Annual meeting includes many activities for the students with contest in Robotics, a Design contest and the student paper contest. The students also have workshops and usually an SPAC to keep them busy while the Region 5 Committee conducts its annual business. The Region 5 Committee includes the Current Chair from each Section in the Region (or a Representative approved by the Director) and the Region Executive Committee. The business meeting is expedited with time for training and social activities. All the Saturday activities conclude with a banquet and awards presentation. The final agenda for the Annual Meeting will be published after the February ExCom meeting February 24<sup>th</sup> in Edinburg, Texas (Grand Valley Subsection, Corpus Christi Section, South Area, Region 5)

#### **6. IEEE Region 5 Awards for 2006 Activities**

Region 5 wishes to recognize the organizations and individuals that have made significant contributions to the Sections, Region, IEEE, and the engineering societies during the 2006 calendar year. This is one way we can give back to those who have given so much of themselves. You or anyone in your local unit may make one or more nominations.

Twelve awards have been established, additional awards may be presented at the committee's discretion. The awards will be presented at the Region 5 Conference in April. The awards are:

**#1- OUTSTANDING LARGE SECTION** - An award will be given for the most active and progressive SECTION based on: number of meetings; type of programs; strategic plan; PACE activities; interactions with Student Branches, Society Chapters, the Region, and other engineering societies; continued education for members; conference activities; and special projects. Membership > 1,000

**#2- OUTSTANDING SMALL SECTION** - An award will be given for the most active and progressive SECTION based on: number of meetings; type of programs; strategic plan; PACE activities; interactions with Student Branches, Society Chapters, the Region, and other engineering societies; continued education for members; conference activities; and special projects. Membership <= 1,000

**#3- OUTSTANDING MEMBER** - An award will be given to an individual MEMBER who has performed outstanding service to the Section, Region, and/or IEEE that promotes the objectives of the IEEE.

**#4- OUTSTANDING ENGINEERING EDUCATOR** - An award will be given to an IEEE MEMBER who has performed in an outstanding manner in the field of ENGINEERING EDUCATION.

**#5-OUTSTANDING LARGE STUDENT BRANCH** - An award will be given for the most active and progressive STUDENT BRANCH based on the number of meetings, type of programs such as technical, professional, S-PAC conference, interaction with the local Section, other student engineering groups, and special projects that advance the objectives of the IEEE.

**#6-OUTSTANDING SMALL STUDENT BRANCH** - An award will be given for the most active and progressive STUDENT BRANCH based on the number of meetings, type of programs such as technical, professional, S-PAC conference, interaction with the local Section, other student engineering groups, and special projects that advance the objectives of the IEEE.

**#7-OUTSTANDING STUDENT MEMBER** - This award will be presented to a STUDENT MEMBER who has given outstanding contributions of time and effort to the Student Branch, the Section, the Region, or the national IEEE to advance the principals of IEEE. This individual may have graduated, but must have been a student member of IEEE during the calendar year of the award consideration.

**#8-OUTSTANDING STUDENT BRANCH COUNSELOR** - An award will be given to the STUDENT BRANCH COUNSELOR that has best supported their Student Branch and promoted the objectives of the IEEE.

**#9-OUTSTANDING SMALL COMPANY AWARD** - An award will be giving to a COMPANY within the Region, nominated by a Section, that strongly supports IEEE members, Region 5, and the objectives of IEEE. A Section may nominate more than one company.

**#10-OUTSTANDING LARGE COMPANY AWARD** - An award will be giving to a COMPANY within the Region, nominated by a Section, that strongly supports IEEE members, Region 5, and the objectives of IEEE. A Section may nominate more than one company.

**#11-OUTSTANDING SECTION WEBSITE AWARD** - An award will be given to the Section within the Region that provides the most effective Section website.

**#12-GOLD Award** - This award is designed to recognize those substantive projects or achievement of a relatively short nature (one to three years) but which have left an undeniable imprint on the fabric of GOLD operations within Region 5. The award will be based on a selection that recognizes individuals involved with GOLD activities who are

recognized for singular achievement in the development and completion of a project(s) or activity(ies) which are directed to the fulfillment of one or more of the Region's goals and/or objectives. The individuals nominated must be GOLD members at the time of nomination.

Nomination forms are available by request from Diane Bowen Collier ([d.b.collier@ieee.org](mailto:d.b.collier@ieee.org)). The forms are also available on the IEEE Region 5 Virtual Community page (<https://www.ieeecommunities.org/ieee.region5>) by selecting Files then Awards-Recognition.

Each nomination document should ***not be longer than 10 pages*** with the font size and line spacing defined by the nomination form. Shorter, concise documents are preferred. Some awards require letters of endorsement in addition to the nomination form. These letters should provide the endorsing member's comments on why the nominated candidate is deserving of the award.

Submit nominations and endorsements to Diane Bowen Collier, Region 5 Awards and Recognition Chair by **Friday March 16, 2007**. Submissions by E-Mail are preferred ([d.b.collier@ieee.org](mailto:d.b.collier@ieee.org)). When submitting by E-Mail, please start the subject of the message header with "**R5 Award Nomination.**"

Receipt nominations will be acknowledged by e-mail. If you do not receive an acknowledgement within 5 working days of submission, please send an e-mail query.

#### **NOMINATIONS SOUGHT FOR "NEW FACES OF ENGINEERING"**

IEEE is now seeking nominations for the 2007 Engineers Week (E-Week) "New Faces of Engineering" campaign, which recognizes young engineers for their outstanding educational and career accomplishments. An annual event since 2002, the program promotes the importance of technical education, celebrates engineering careers and recognizes significant contributions to the engineering profession and society. To nominate, visit:  
<http://www.eweek.org/site/Engineers/newfaces2007/nomination.shtml>

#### **Valparaiso Wins Region 4's First Ethics Competition**

To judge by recent headlines, we live in a world increasingly troubled by unethical behavior. That's all the more reason to applaud Region 4 (central United States) for sponsoring a competition to promote awareness of ethical concepts and challenges among engineering students. For more on the competition, visit

<http://bmsmail3.ieee.org:80/u/4977/05686431>

#### **Class of 2007 Fellows Posted Online**

The 2007 Class of Fellows has been elected. To see the list of the 268 new Fellows, go to <http://bmsmail3.ieee.org:80/u/4982/05686431>

#### **Wanted: Fellow Nominations From Industry**

If you know an IEEE Senior Member working in industry who has made extraordinary contributions in applying technology in the IEEE's fields of interest, consider nominating that person as a Fellow, the institute's highest membership grade. The deadline to nominate someone for the class of 2008 is 1 March 2007. Read more at <http://bmsmail3.ieee.org:80/u/4260/05686431>

## 6. Section, Subsection, Chapter, Branch, Affinity Member News

Sections IEEE requires annual reporting of financial activity, meeting activity, and current officer's rosters of sections, subsections, councils, chapters and Affinity Groups. Section and unit officers are responsible for submitting the 2006 reports by 23 February 2007. Since some chapters and affinity groups do not have secretaries a team effort is needed to accomplish these tasks on time. All reports need to be received by the deadline for the section to earn an additional 10% timely reporting bonus. Hard copy reporting forms are no longer acceptable. On-line meeting report forms available at <http://www.ieee.org/L31>. The final submission deadline for all reports is **31 March 2007**. No unit or subunit rebate payments on 2006 activity will be made for late submissions. You can access these reports for filing via the following URL: [http://www.ieee.org/web/geo\\_activities/rab/scs/Required\\_Reporting/index.html](http://www.ieee.org/web/geo_activities/rab/scs/Required_Reporting/index.html)

The Region will support travel expenses for one member from each section and the winners of the Area Student Paper Contest. The section usually sends their current Chairman or an approved alternate. However, this is a learning experience and training for future section officers. Therefore, the section should support travel for additional officers to the Region 5 Annual Meeting.

Later this year the region scheduled a Teacher In Service Program (TISP) for IEEE Region 5 Sections, Affiliates and Chapter volunteers. A flyer will be sent out in January so think about identifying the IEEE K-12 Section volunteers to participate in support of your community programs! The TISP workshop is scheduled to train the trainers. Travel funding will be provided for one or more K-12 types from each section. A few teachers will also be invited.

Branches Student Activities Newsletter

Region 5 publishes a Student Activities Newsletter containing news and information of interest to the Student Branches in Region 5. If you think you should be receiving this and do not, or simply want to be added to the distribution list, please send e-mail to Francis Grosz at [f.b.grosz@ieee.org](mailto:f.b.grosz@ieee.org) and you will receive them starting with the next edition.

Student Leaders Have Good Words for Pizza, T-shirts. Can free pizza and T-shirts be the keys to running a successful IEEE student branch? Don't laugh, for the answer is "Yes," according to IEEE student branch leaders who attended the first Student Leaders Summit of the IEEE University Partnership Program. Learn more at <http://bmsmail3.ieee.org:80/u/4315/05686431>

Chapters WASHINGTON (October 2006) -- In two of the most visible events to celebrate the 60th anniversary of ENIAC, the first all-electronic computer, and the 60th anniversary of the IEEE Computer Society, the Computer Society held its President's Awards Banquet. Dr. Deborah Cooper presented awards for technical achievement, standards development, excellence in distributed computing systems, and to two computer pioneers.

IEEE Computer Society Board of Governors Member Alan Clements and Northrop Grumman Information Technology Program Manager/Technical Fellow Kathy Land gave the awards to an undergraduate team from the Russian State Technological Institute in Moscow. The team received

a first-place prize of \$10,000, donated by Northrop Grumman, for its website on the history of the computer. For more information on the student history competition, go to <http://www.computer.org/education/chc60/winners>

On Tuesday, 31 October, the Computer Society held its President's Awards Banquet. Dr. Deborah Cooper presented awards for technical achievement, standards development, and excellence in distributed computing systems, and to two computer pioneers. Two computer pioneers from the United States and Japan were honored, respectively, for their contributions in developing an online data acquisition and recording system and a multi-access reservation system. From the United States, Arnold Spielberg was honored for his contribution "to real-time data acquisition and recording that significantly contributed to the definition of modern feedback and control processes." In 1954, Mr. Spielberg created an online data acquisition and recording system unique for its time. He is responsible for development and design of several GE, IBM and SDS computers, and is the father of Steven Spielberg, the movie director.

The second recipient of the "Computer Pioneer Award" is Mamoru Hosaka, who is recognized for "pioneering activities within computing in Japan." In 1955, he developed the basic idea for seat reservations on trains, which has evolved into the multi-access reservation system. Mr. Hosaka's ideas and theories were applied by Toyota where clay models for car body style design and real master models for automotive manufacturing were replaced in the 1970s by computer internal models.

**IEEE Vehicular Technology Society** and the **IEEE Power Electronics Society** will sponsor the conference entitled "2007 IEEE Vehicle Power and Propulsion Conference (VPPC)". This conference will be held September 9-12, 2007 in Arlington, Texas. For further information, please contact, Mr. Robert Myers [bob.myers@ieee.org](mailto:bob.myers@ieee.org) or Conference Services Dept., at IEEE Operations Center at +1 732 562 3878.

### **Get Certified in Communications Technology**

The IEEE Communications Society is introducing a new certification program geared to technical professionals who want to sharpen their communications technology knowledge. Read more at <http://bmsmail3.ieee.org:80/u/4829/05686431>

### **Associate level Certification**

Presenting Associate level Certification, where you can apply knowledge from work experience and Data Center University courses toward a professional Certification. Enhance your career as a data center professional and earn a globally recognized credential for your resume, as well as continuing education credits from IEEE. Courses are online at any time. Get Certified!

<http://bmsmail3.ieee.org:80/u/4255/05686431>

## **7. Region 5 ExCom Program Coordinators News**

Each Region Program Coordinator will have their year end summaries available at Region 5 ExCom meeting 24 February. These reports like all IEEE open meetings will be stored as

attachments on the Region 5 Web site. Should any IEEE member have an issue or idea for the ExCom to consider, please contact your Section Chair and/or Area Chair to bring to this meeting.

### **Membership Development: What You Value About Membership**

Which benefits are most important to you? According to a survey commissioned by the IEEE Membership Development Committee, the answers are a society membership, a subscription to IEEE Spectrum, and downloads from the IEEE Xplore digital library included with the basic membership fee. To read more about the survey results, go to

<http://bmsmail3.ieee.org:80/u/4820/05686431>

### **8. Conferences, Workshops News**

The 2007 IEEE Region 5 Conference and Annual Meeting will be held at the University of Arkansas, Fayetteville, AR on April 20-22, 2007. In spring, the UA campus, located in the foothills of the beautiful Ozark Mountains, will be bursting in spring colors. Artistic Eureka Springs, Branson and the legendary big

cat sanctuary at Turpentine Creek are about an hour's drive. More area information at

<http://www.fayettevilletourism.com/>

### **Webinar Focuses on Challenges in Battery Standards and Safety**

The recent recall of millions of laptop batteries has prompted the IEEE to revise its guidelines for the design, manufacture, and testing of lithium-ion batteries and packs. On 25 January, hear industry experts speak about how this will impact future product designs at the Tech Insider Webinar: Challenges in Battery Standards and Safety. Sign up now at

<http://bmsmail3.ieee.org:80/u/4978/05686431>

**CALL FOR PAPERS:** 11th Annual IEEE International Symposium on Consumer Electronics (ISCE 2007) June 20<sup>th</sup> -23<sup>rd</sup>, 2007, Dallas, Texas, USA To be held at the Westin Dallas Fort Worth Airport Hotel, Irving, Texas 75063, United States. For more information:

<http://www.isce2007.dallasces.org>

The Dallas Chapter of the IEEE Consumer Electronics Society brings together international experts, educators, and colleagues for a four-day symposium of workshops and technical sessions to address emerging technologies and their applications.

Topics of Interest: Digital Rights Management & Security, Broadband Wireless Access, Sensor Networks, Wireless Security, Dependable Networks, Channel Access, Novel Network Protocols, 3G/4G Systems, Internetworking, Automotive, Home Electronics & Communication, Mobile Computing, Internet Applications, Multimedia Video Technology, Audio Technology, RF & Wireless, User and Human Interfaces, Digital Imaging Technologies, Gaming, Home Networking, Home Theater/Video, Wireless Technologies and Emerging Technologies.

Submission: Authors are required to submit a one page abstract for each paper, demo, or poster by February 2, 2007 to [isce2007@dallasces.org](mailto:isce2007@dallasces.org). The appropriate committee chair will notify each author of their acceptance status by February 16, 2007.

### **9. Pre-College/ Education**

The 2007 Region 5 Pre-college Program Coordinator is Ms. Dusty Fisher from the Denver Section. If you have anything regarding pre-college activities in your section, let Dusty know ([dlfisher@ieee.org](mailto:dlfisher@ieee.org)).

### **HEALTHY GROWTH EXPECTED FOR MOST STEM OCCUPATIONS THROUGH 2014**

Information technology is expected to continue to be the leading growth sector within the science and technology specialties through 2014. Most other scientific, technological, engineering, and mathematical (STEM) occupations are expected to grow moderately, at rates similar to those for the entire U.S. labor force, according to a report released today by the Commission on Professionals in Science and Technology (CPST). The report, part of the Alfred P. Sloan Foundation-funded STEM Workforce Data Project, is based on data from the Bureau of Labor Statistics (BLS). It includes estimated 2004 and projected 2014 employment data for over 100 STEM occupations or broad sets of occupations.

Other STEM occupations with strong growth rates include forensic science technicians, medical scientists and epidemiologists, hydrologists, biomedical engineers, environmental engineers, environmental engineering technicians, actuaries, and market and survey researchers. In terms of the absolute numbers of new jobs, IT occupations will post the most significant gains. Computer specialists are expected to generate nearly 957,000 new jobs during the decade. In all, IT workers and managers account for more than five percent of the total job growth projected by BLS for the U.S. between 2004 and 2014. A number of STEM occupations are projected to fall short of the overall anticipated U.S. employment growth rate of 13 percent over the ten-year projection period, but none are projected to lose large numbers of jobs. Scientific and technical professionals can be found in every broad employment market in the U.S. economy, including goods distribution sectors such as wholesale trade, retail trade, and transportation and warehousing. The report provides employment data by STEM occupation and 31 employer categories for 2004, and the accompanying data archive includes projections for 2014 by industry and STEM occupation. The full report is available online.

### **A FORTY-YEAR ANALYSIS OF STEM DEGREES Between 1966 and 2004**

The number of degrees awarded annually in science, technology, engineering, and mathematics (STEM) fields more than doubled, and women, minorities, and foreign nationals earned a significantly higher proportion of STEM degrees in 2004 than in 1966, according to a report released today by the Commission on Professionals in Science and Technology (CPST). The report, part of the Alfred P. Sloan Foundation-funded STEM Workforce Data Project, is based on data from the National Science Foundation's Web CASPAR Database. It highlights trends in STEM degrees over the past 40 years, looking at the data by field, sex, race/ethnicity, and citizenship. Highlights include:

- The total number of degrees awarded in STEM fields increased by a factor of 2.6 over the last four decades, from 239,333 in 1966 to 616,463 in 2004, a somewhat slower rate than for all degrees combined, which increased by a factor of 2.9, from 682,729 in 1966 to more than 2 million in 2004.
- At the bachelor's level, the number of STEM degrees, including engineering technologies and science technologies, rose nearly 252 percent during that time interval, from 186,670 to 470,308.
- STEM degrees represented about a third of all U.S. bachelor's degrees awarded in 2004, approximately the same proportion that they represented every year since 1966.

- Women's share of STEM bachelor's degrees doubled in the past 40 years. In 1966, women earned 24.5 percent of the STEM bachelor's degrees; by 2004, they earned 49.2 percent.
- Underrepresented minorities (African Americans, American Indians/Alaska Natives, and Hispanics) also made gains in STEM fields. At the bachelor's level, their share of these degrees increased from 9.0 percent in 1977 to 16.5 percent in 2004.

### **ENGINEERS WEEK 2007 PARTNERS WITH PBS ENGINEERING REALITY COMPETITION**

Marketers say children aged between nine and twelve are a particularly difficult audience to reach, but an upcoming live-action TV series where engineering is the star appears to be right on target. For 2007, Engineers Week partners with WGBH Boston on Design Squad, the new PBS program that uses reality television to introduce kids and families to the engineering design process. Design Squad features two teams of real high school kids who use their problem-solving skills to design, construct, and test engineering projects such as a machine that automatically makes pancakes, or a motorized red wagon that can reach speeds up to 20 mph. The brainchild of ZOOM producers WGBH Boston, Design Squad premieres the first of its 13 episodes on PBS stations nationwide during Engineers Week 2007.

More information about Design Squad and its outreach campaign can be found online at [www.pbskids.org/designsquad](http://www.pbskids.org/designsquad). Engineers Week, February 18-24, 2007, is a formal coalition of more than 75 engineering, professional, and technical societies and more than 50 corporations and government agencies. Find out more at [www.eweek.org](http://www.eweek.org).

### **ADVANCED TECHNOLOGICAL EDUCATION PROGRAM BRINGS TWO-YEAR COLLEGES AND INDUSTRY TOGETHER**

To keep up with increasing competition in science and technology, the United States is seeking ways to prepare a technically savvy science and engineering workforce. The National Science Foundation's (NSF) Advanced Technological Education (ATE) program is one example of an approach that's achieving solid results. By providing collaborations between two-year colleges and industry, the program equips current and next generations of science and engineering technicians with the latest skills and tools to compete in the global marketplace.

An example of the success achieved by the NSF-funded ATE Centers is that of the Center for Advancement of Process Technology (CAPT) in Texas City, TX. CAPT has worked with 43 partner colleges to produce 5,726 highly skilled technicians who are working in companies vital to the United States economy, such as BP, Conoco-Phillips, Dow Chemical, Shell, and Exxon Mobil. CAPT reports that 73 percent of students who undertook internships with industry partners were hired as full-time employees within six months after graduation with a yearly salary range of \$40,000 to \$60,000. Established in 1992, the congressionally mandated ATE program seeks to improve the quantity, quality, and diversity of the nation's science and engineering technicians at a variety of institutions. In the beginning, the program supported three centers around the nation. Today, there are 33 centers and more than 200 other technician education projects supported by the program. More information is at [www.aacc.nche.edu/ateprogram](http://www.aacc.nche.edu/ateprogram).

## **IEEE LAUNCHES TRYENGINEERING.ORG**

IEEE, has launched a new website, TryEngineering.org - that is packed with information about engineering careers, university engineering programs, and the various fields of engineering. The site includes a one of a kind searchable database of accredited engineering programs in the U.S. and Canada, which will be expanded to global coverage over the next year. TryEngineering aims to inform students (ages 8 to 18), teachers, school counselors, and parents about what engineering is and what engineers do. It was put together by a partnership of the IEEE, IBM, and the New York Hall of Science, and includes the participation of SAE International, and Triangle Coalition members, JETS and the Sloan Career Cornerstone Center.

Another highlight of the site is an extensive lesson plan area that provides standards-based activities on a variety of topics, including building a robot arm, dissecting a computer mouse, engineering adaptive devices, and exploring solar energy technology. A unique feature of the site is the ability to pose engineering-related questions to working engineers or engineering undergraduate students. JETS is supporting TryEngineering by coordinating the "Ask an Undergraduate" site resource. There's also a site area called "Play Games" that encourages students to explore online interactive activities that introduce them to basic engineering concepts. For example, "Beat the Heat" provides students a chance to design a house that can remain at a comfortable temperature year round using solar energy, and "Millennium Train" calls for the design and testing of an advanced railway transportation system. For more information on TryEngineering.org, visit [www.tryengineering.org](http://www.tryengineering.org).

## **Mentors, Judges Needed for Robotics Competition**

One good way to inspire high-school students to pursue an engineering career is to get them to do a little engineering -- like having them build a robot. Student robot competitions are growing in number, and one of the biggest is a U.S.-wide program sponsored by a group called For Inspiration and Recognition of Science and Technology, or FIRST. To read more, go to <http://bmsmail3.ieee.org:80/u/4319/05686431>

## **Business and Systems-Analysis Classes at a Discount**

The IEEE Education Partners Program and InQuestra Learning, an e-learning company, are offering members business and systems-analysis courses at a discount. The online courses include labs and study guides. To access the list of courses or find other classes, visit <http://bmsmail3.ieee.org:80/u/4987/05686431>

## **10. IEEE, IEEE-USA News**

### **2006 IEEE ANNUAL ELECTION:**

The following elected officers have been approved by the IEEE Board of Directors at its meeting of 19 November 2006.

OFFICE OF PRESIDENT-ELECT, 2007 Lewis Terman

OFFICE OF DIVISION DELEGATE-ELECT/DIRECTOR-ELECT, 2007  
Division I Giovanni (Nanni) De Micheli  
Division III Curtis A. Siller, Jr.

Division V Deborah M. Cooper  
Division VII John D. McDonald  
Division IX Frederick C. Mintzer

#### OFFICE OF REGION DELEGATE-ELECT/DIRECTOR-ELECT, 2007-2008

Region 2 William P. Walsh, Jr.  
Region 4 Don C. Bramlett  
Region 6 Leonard J. Bond  
Region 10 Yong Jin Park

#### OFFICE OF STANDARDS ASSOCIATION BOARD OF GOVERNORS

Member-at-Large, 2007-2008 Dennis B. Brophy  
Member-at-Large, 2007-2008 H. Landis (Lanny) Floyd, II

#### OFFICE OF TECHNICAL ACTIVITIES

VICE PRESIDENT-ELECT, 2007 Jose R. (Roberto) Boisson de Marca

#### OFFICE OF IEEE-USA

President-Elect, 2007 Russell J. Lefevre  
Member-at-Large, 2007-2008 Gregg L. Vaughn

### **2007 Membership Year Brings New Benefits and Services**

The new membership enrollment year has kicked off with some useful new member benefits, services, products, and upgrades to existing programs. Read more at

<http://bmsmail3.ieee.org:80/u/4256/05686431>

### **New Publication Spells Out IEEE Benefits**

Do you have questions about planning for retirement? Need advice on disability insurance, college tuition, savings plans, or homeowner's insurance? Then check out F.Y.I., the newsletter of the IEEE Financial Advantage Program. For more information, visit

<http://bmsmail3.ieee.org:80/u/4317/05686431>

### **Australian Spammers Fined Millions**

The Australian Federal Court has fined Clarity1 Pty and its director, Wayne Mansfield, AU \$5.5 million for sending spam e-mails. Between April 2004 and April 2006, the company sent some 280 million spam messages, with about 74 million delivered successfully. The e-mails that advertised business seminars and various products violated Australia's Spam Act, which prohibits unsolicited messages. What do you think of this punishment? Would you like it implemented in your country?

Weigh in at [<mailto:institute@ieee.org>](mailto:institute@ieee.org)

### **IEEE.tv: New Broadcaster Hits Town**

After more than 100 years as a magazine publisher, the IEEE might be regarded as an unlikely candidate to become a broadcaster. But in August, the IEEE released IEEE.tv, its Internet broadcasting network, which features coverage of IEEE conferences, interviews with IEEE book authors, primers on technology-related careers, and overviews of IEEE products and services.

Learn more at <http://bmsmail3.ieee.org:80/u/3937/05686431>

### **VHS Named History Milestone**

Although one would be hard pressed now to find new movies released in the VHS format, it stood as the video recording standard for almost three decades. Because of its impact, the VHS format was recognized with an IEEE Milestone in Electrical Engineering and Computing in a ceremony on 11 October in Tokyo.

Read more at <http://bmsmail3.ieee.org:80/u/3939/05686431>

### **IEEE-SA ADOPTS PLAN TO MOVE 802.20(TM) BROADBAND WIRELESS STANDARD**

The IEEE Standards Association Standards Board (SASB) announced its plan to enable the IEEE 802.20 Working Group to move forward with its work to develop a mobile broadband wireless access standard and provide the best opportunity for its completion and approval. The plan calls for the working group's reorganization including the appointment of new officers as well as new balloting and balloting resolution committees. It also clarifies and tightens requirements for disclosure of affiliations. For news regarding IEEE Standards development work go to:

<http://standards.ieee.org/announcements/index.html>

### **MyIEEE Adds New Features**

The IEEE's membership portal, myIEEE, has just updated its career development features. From the Profession Desktop, members can now get listings from the IEEE Job Site, which is updated daily. New modules link members to IEEE's Mentoring Connection site and IEEE-USA's Career Navigator site, where they can get career advice. From myIEEE, members can also access their subscriptions, launch IEEE.tv, and manage their membership account. Log in at

<http://bmsmail3.ieee.org:80/u/4825/05686431>

### **IEEE Foundation Awards Eight Grants**

Keeping the doors of the IEEE Virtual Museum open, helping bridge the technology gap between developed and developing countries, and improving life for the elderly are among the initiatives that received funds this year from the IEEE Foundation. Read more at

<http://bmsmail3.ieee.org:80/u/4265/05686431>

### **Environmentally Friendly Outdoor Lighting**

Interested in installing outdoor lights that don't create light pollution in the night sky? Listen to an IEEE Spectrum Radio report featuring Jim Benya, an electrical engineer who believes in designing environmentally friendly outdoor lighting, at <http://bmsmail3.ieee.org:80/u/4267/05686431>

### **IEEE-USA will launch a Critical Infrastructure Protection Committee in January.**

WASHINGTON (15 December 2006) -- Citing a need to foster and assist policy initiatives related to critical infrastructure security needs, IEEE-USA plans to work on these issues with government and private homeland security organizations. The committee will look at all aspects of critical infrastructure protection, including cyber security, electric power, communications, computer networks, government services, public health, water, food supplies, energy, transportation, emergency services and banking and finance, among other key assets. IEEE-USA focus will be on protecting the information-technology underpinnings of the infrastructure.

The integrity of these systems is critically important to the recovery of communities after catastrophic events such as natural disasters, system failures or terrorist attacks, IEEE-USA CIPC Chair Dr. Luis Kun said. The optimal functioning of our society depends on our nation critical infrastructure. For more information, contact Dr. Kun (l.kun@ieee.org) or Debbie Rudolph (d.rudolph@ieee.org).

### **Medicare Facing Future Bankruptcy; Cites \$30 Trillion Unfunded Liability**

WASHINGTON (29 December 2006) -- Because of rising healthcare costs, advancing technology, and an aging U.S. population, predicting future Medicare spending is difficult. In 2005, the unfunded liability for Medicare was projected to be close to \$30 trillion, according to the current issue of IEEE-USA Today Engineer Online.

Medicare is a federal health insurance program for people 65 and older, disabled people under 65 and those with end-stage renal disease. Three-quarters of Medicare costs are covered by the program; the remainder by recipients. With the expected growth in those eligible for benefits and the uncertainty of future healthcare costs, Medicare Part A, which covers hospital services, is expected to run out of money by 2018. The prescription drug program (Medicare Part D) is also unfunded. To prevent the projected shortfall, some combination of cutting benefits, raising premiums or increasing the payroll tax will have to be implemented. To read the entire article, go to [www.todaysengineer.org](http://www.todaysengineer.org). To subscribe to Today Engineer Online, IEEE members can go to <http://ewh.ieee.org/enotice/options.php?LN=IEEEUSA>. Non-members can visit <http://www.todaysengineer.org/emailupdates/index.html>

### **Engineers Needed: Online Survey on Voluntary Job Termination**

An engineer and doctoral candidate in Organizational Psychology at the Graduate School of Applied and Professional Psychology at Rutgers University is conducting a study on decisions paths for voluntarily job termination, to understand whether there are differences based on gender and type of engineer. The study's author, Kim Cowan, hopes to uncover patterns that will lead to ways to improve retention. The survey will be open until 1,000 surveys are completed. Interested engineers should visit <http://bmsmail3.ieee.org:80/u/4861/182940>

### **Enhanced IEEE-USA Employment Navigator Now Free**

The enhanced IEEE-USA Employment Navigator is now free for IEEE members. The portal helps you quickly connect to hiring employers by collecting millions of job leads from an array of job boards and employer Web sites into a single searchable database. While you can still build and send effective resumes and link to salary benchmarking and other career resources, you can now filter jobs easier, save your searches, and get a profile of each hiring company. Canadian job listings will be offered soon, and more countries will be added in 2007. See <http://bmsmail3.ieee.org:80/u/4860/182940>

### **IEEE-USA Salary Survey Ranked Second by About.com**

The Web site ABOUT.COM has ranked the IEEE-USA Salary Survey as the #2 salary online calculator for tech professionals behind Salary.Com. The review states: "The IEEE salary survey is

one of the most accurate out there for technology professions. View the "Top Six Salary Calculators Online" at

<http://bmsmail3.ieee.org:80/u/4858/182940>

Check out IEEE-USA's Salary Service for yourself at: <http://bmsmail3.ieee.org:80/u/4859/182940>

### **Quantities of Engineering Careers Brochure Available**

IEEE-USA's new six-panel engineering careers brochure, designed for 11-13-year-old, sixth- to eighth-grade students, is available to educators, science and technology centers and other interested parties upon request. Titled "My Science, My Math, My Engineering! How Am I Ever Going to Use This Stuff in the Real World?" The brochure lists courses youngsters should take to get ready for engineering; shows how they can figure out "if engineering is interesting"; and asks "what could \*you\* do if you were an engineer?" In one of the brochure panels, novelist and short story writer James Michener is quoted: "Scientists dream about doing great things, engineers do them." For more information, visit: <http://bmsmail3.ieee.org:80/u/4857/182940>; or contact IEEE-USA's Helen Hall at [h.hall@ieee.org](mailto:h.hall@ieee.org)

### **Three New IEEE-USA E-Books Provide an Engineer's Guide to Lifelong Employability**

IEEE-USA's latest series of e-books comprise an Engineer's Guide to Lifelong Employability, with installments on Resumes; The Transition from School to Work; and What Are You Worth? For more information, and to order, visit: <http://bmsmail3.ieee.org:80/u/4856/182940>

### **Dates Set for 12th Annual SET Congressional Visits Day**

U.S. IEEE members are invited to join with hundreds of other engineers and scientists for the 2007 Science, Engineering & Technology Congressional Visits Day (CVD) to be held on 1-2 May 2007 in Washington, D.C. Coordinated by IEEE-USA. IEEE members will meet with their Members of Congress or their staff to drive home the message that federally funded research is critical to securing the nation's future. More information will be available in next few months at: <http://bmsmail3.ieee.org:80/u/4854/182940>

### **E-Week 2007 Just Around the Corner**

IEEE-USA will again play a key role in activities surrounding Engineers Week 2007, 18-24 Feb. 2007. Festivities get underway in Washington, D.C., with Discover Engineering Family Day at the National Building Museum on 17 Feb. And IEEE-USA is sponsoring the Best Communications System Award and the essay question for the 15th anniversary of the E-Week Future City Competition in Washington. IEEE-USA also helped with the proposal that led to the IEEE becoming a major sponsor of the new engineering-based PBS television show, "Design Squad," which launches during E-Week. Check with your local Section to see how you can participate in E-Week 2007. See: <http://bmsmail3.ieee.org:80/u/4853/182940>

### **IEEE RFID 2007 Conference**

Scheduled for 26-28 March 2007 in Grapevine, Texas (near Dallas) in conjunction with RFID World, IEEE RFID 2007 is the first annual international IEEE conference dedicated to addressing the technical and policy challenges in the areas of radio frequency identification (RFID) technologies. Authors will present new research, innovations and implementations related to the theory and practice of RFID systems, sensor

technologies, and related information system support. The conference will also have panels that examine innovative, controversial, or otherwise provocative issues of interest. For more information, see:

<http://bmsmail3.ieee.org:80/u/4392/180005>

### **Build Your Career: IEEE-USA Launches New Webinar Series**

IEEE-USA's Employment and Career Services Committee is offering a series of Webinars designed to help you find your next job, maintain your career, negotiate an appropriate salary, and understand ethical considerations in the workplace. For more information on individual Webinars and to register, visit:

<http://bmsmail3.ieee.org:80/u/4393/180005>

### **Special IEEE Membership Recruitment Rewards**

IEEE's U.S. Sections who proactively recruited higher-grade members during the fourth Quarter 2006, IEEE-USA has announced special financial rewards for U.S. IEEE Sections, including: A \$1,000 to the section that has the largest percentage increase in higher-grade membership between 1 Oct. 2006 and 31 December 2006; and a \$1,000 to the section that recruited the most new higher-grade members (not renewals or transfers between sections) between 1 Oct. 2006 and 31 December 2006. For more information, visit: <http://bmsmail3.ieee.org:80/u/4394/180005>

### **Applications Sought for IEEE-USA Government Fellowships**

IEEE-USA is currently accepting applications for Congressional and Engineering & Diplomacy Fellowships beginning in January 2008. The deadline for both is 23 February 2007. The IEEE-USA Congressional Fellows Committee will review applications and begin to notify successful applicants in late March 2007.

Women are encouraged to apply. For more information, please visit:

<http://bmsmail3.ieee.org:80/u/4396/180005>

### **TO ENHANCE THE IMAGE OF ENGINEERS/ENGINEERING, IEEE-USA APPROVES 2007 ENGINEERING PUBLIC-AWARENESS PROGRAM**

WASHINGTON (29 November 2006) -- As part of its ongoing effort to enhance the image of engineers in the United States, IEEE-USA volunteer leaders have endorsed a 2007 IEEE-USA public-awareness program that reaches out to youngsters, adults and the public at large. At its meeting on 17 November in New Orleans, the IEEE-USA Board of Directors approved \$65,000 in unbudgeted expenditures, plus \$63,000 in already budgeted expenses for the 2007 IEEE-USA public-awareness program.

The public-awareness program includes six components:

- Adding IEEE technologies to TV engineering news spots developed through the American Institute of Physics (AIP) "Discoveries & Breakthroughs" syndication service
- Helping print and broadcast journalists communicate authoritatively to the public about engineering and science through the selection of two IEEE-USA Engineering Mass Media Fellows as part of the AAAS program; and recognizing journalists for furthering the public understanding of the engineering profession
- Launching an engineering film festival with the American Film Institute, or similar body, and U.S. IEEE sections to help highlight engineering as it is presented in popular media

- Backing engineering reconstruction efforts in and outside of the United States by recognizing accomplishments of students in the non-profit humanitarian organization, Engineers Without Borders-USA
- Introducing youngsters to basic engineering concepts and communicating engineers' support for local community activities through National Engineers Week 2007 Discover Engineering Family Day in Washington, D.C.
- Informing younger students, 9-to-13-years-old, about careers in engineering through a brochure distributed to a cross-section of children's museums nationwide

**TV ENGINEERING NEWS SPOTS:** For a third consecutive year, the IEEE-USA Board backed the AIP "Discoveries & Breakthroughs" TV news spots, continuing its contribution of \$25,000. In 2005-2006, IEEE-USA participated in the development of some 300 news stories about engineering and science sent to

66 U.S. TV stations -- with a potential audience of 75-million viewers. IEEE-USA participation ensured that more engineering stories were part of news broadcasts, especially IEEE technologies, in such news features as: "Predicting Surgery"; "Wind Farms and Weather"; "Producing Speech"; "New Generation Fire Sensors"; "Fuel-Efficient Cars"; "High-Tech Citations"; "Robotic Bugs"; "Longer Battery"; and "Future Screens." IEEE-USA's Pre-college Education Committee has also pursued a program with teachers using "Discoveries & Breakthroughs" DVDs in classrooms -- collaborating with students to produce their own versions of the TV spots -- further expanding the reach of the AIP/IEEE-USA service.

For more information, go to <http://www.aip.org/dbis/>.

### **ENGINEERING MASS MEDIA FELLOWS**

Beginning in 2007, for the eighth consecutive year, IEEE-USA continues its support of the AAAS Science & Engineering Mass Media Fellows program -- for the second time choosing two IEEE-USA Fellows -- representing a \$17,000 contribution. Since 2000, IEEE-USA has backed eight U.S. IEEE student members, who have worked for 10 weeks at such media outlets as: "Scientific American"; WNBC-TV, in New York City; "Popular Science"; WOSU-AM, in Columbus, Ohio; the "St. Louis Post-Dispatch"; the "Richmond Times-Dispatch"; the "Sacramento Bee"; and the "Chicago Tribune."

More information; <http://www.ieeeusa.org/communications/massmedia.asp>.

**ENGINEERING FILM FESTIVAL:** In 2007, IEEE-USA will seek to enter into a partnership with the American Film Institute, or similar body, and subsequently with IEEE Sections nationwide to produce an engineering film and discussion series. The IEEE-USA Engineering Film Festival will be open to the public and is intended for a broad range of individuals who enjoy the cinema and have an interest in engineering and technology. The films are expected to be shown without charge and to as many as 400 Washington-area residents once a week for six weeks. After each film, a speaker or panel with knowledge of the film's subject area will be called on to provide commentary on the engineering and to take questions from the audience. Films to be considered include: "Edison the Man" (1940), starring Spencer Tracy; "Fantastic Voyage" (1966); "The Right Stuff" (1983); "Apollo 13" (1995); "Infinity" (1996), about the Nobel Prize-winning physicist Richard Feynman; and "Primer" (2005). With \$20,000 in funding, the program will be patterned after the National Institutes of Health's successful "Science in the Cinema."

For more information, go to <http://science.eduation.nih.gov/cinema>.

**ENGINEERING CAREERS BROCHURE:** Additionally, in 2007, IEEE-USA will continue distributing a pre-college education brochure designed primary for youngsters in fourth to eighth grades. Some 20,000 copies of "My Science, My Math, My Engineering! How Am I Ever Going to Use This Stuff in the Real

World?" were distributed in 2006 to more than two-dozen U.S. children's museums and to organizations with K-12 student sci-tech enrichment programs. The brochure complements an earlier brochure available from IEEE-USA aimed at high-school students. The new brochure can be downloaded at

<http://www.ieeeusa.org/communications/ia/ia-06-23-06.asp>.

### **New IEEE-USA e-Book on Strategic Thinking for Non-Strategists in High-Tech Companies**

IEEE-USA's latest e-Book sets non-strategists on the road to becoming effective strategists by clarifying the language and process of strategy, and arming readers with the basic tools needed to understand and implement it. Three sections illustrate the key steps of the strategy process: analysis, synthesis and action. Other e-Books available include: "Career Planning Guide for IEEE Members," "The Best of IEEE-USA Today's Engineer and on Career Survival. Check out the latest e-Book at: <http://bmsmail3.ieee.org:80/u/4002/177588>

### **Seeking Engineering Faculty Member to Mentor Summer 2007 Public Policy Interns**

An outstanding faculty member is needed to serve as Faculty-Member-in-Residence (FMR) for the 2007 Washington Internships for Students of Engineering (WISE) program in Washington, D.C. WISE is a nine-week summer program (4 June – 3 August 2007) in which nine undergraduate engineering students from across the United States work under the guidance of the FMR and their sponsoring societies. They learn how legislative and regulatory policy decisions involving complex scientific and technological issues are made, and how engineers can contribute to the process. WISE Interns interact with Washington decision-makers and prepare an extensive research paper to be presented orally at the end of the program. For more information, consult the WISE Web page at <http://bmsmail3.ieee.org:80/u/4004/177588>

### **Georgetown Study Reveals Flaws in Immigration Bill**

A Georgetown University study found problems with the high-skill visa provisions within the Senate's major immigration reform bill (S.2611). The study looked at three of the larger high-skill visa programs: H-1B, EB and F visas. The report, funded by IEEE-USA, concluded that S.2611, as passed, would expand the permanent immigration system beyond reasonable estimates of future demand for non-American workers. The U.S. Department of Labor's Bureau of Labor Statistics estimates the number of new computer and engineering workers needed by the nation's economy over the next 10 years at 1.25 million. As passed, S.2611 would make as many as 1.88 million high-tech visas available over that same time period – exceeding total demand by some 630,000 visas. More information can be found at: <http://bmsmail3.ieee.org:80/u/4006/177588>

### **IEEE-USA Commends Sen. Collins for Seeking Answers on Flawed H-1B Program**

WASHINGTON (12 December 2006) -- IEEE-USA commends Sen. Susan Collins (R-Maine), outgoing chairman of the Senate Committee on Homeland Security and Governmental Affairs, for her recent letter questioning the effectiveness of workplace safeguards in the H-1B temporary guest worker program. Sen. Collins wrote to U.S. Secretary of Labor Elaine Chao and U.S. Citizenship and Immigration Services Director Emilio Gonzalez on 4 December. The effectiveness of these safe guards, is in question. Sen. Collins highlighted the abuse and misuse of H-1B visas, particularly in smaller states like Maine, and for seeking answers from leaders who oversee the program. Past IEEE-USA President Ralph W. Wyndrum Jr. was pleased that someone of her stature realizes that flaws in the H-1B program harm U.S. and H-1B workers, as well as the U.S. economy.

Collins letter cited an in-depth investigative series by the Portland (Maine) Press Herald into the H-1B program's problems and loopholes. One of the abuses the newspaper found was some companies appear to file through Maine to receive its lower prevailing wage, and then ship the foreign worker off to a higher-wage areas, like New Jersey and Silicon Valley. While many of the H-1B problems must be fixed by Congress, the Labor Department has simply not done enough to address these concerns. We hope Sen. Collins letter will spur the department to improve the integrity of a flawed and broken program. It has much more discretion than it has exercised to investigate obvious program misuse and abuse.

The series is available at <http://pressherald.mainetoday.com/news/immigration/>.

While some American businesses need access to foreign skilled laborers, we should not allow unscrupulous companies to circumvent the system, Collins wrote in her letter. Their subversion of the law harms American technology workers, as well as legitimate firms whose high standards prevents them from exploiting the system's flaws. We must protect these workers and employers. See Collin's letter to Secretary Chao at

<http://www.ieeeusa.org/policy/issues/H1bvisa/CollinsH1B.pdf>.

**Send all comments, letters to the editor and news articles for publication in the IEEE Region 5 E-news to: [w.whipkey@ieee.org](mailto:w.whipkey@ieee.org) Region 5 Newsletter editor. Next publication will be in May.**