



THE POCKET SCOPE



The Institute of Electrical and Electronics Engineers, Inc.

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June 2003

SCOPE NOTES

June

Houston Section News

Where:
HESS (Houston Engineering and Scientific Society)
5430 Westheimer@Yorktown

When: Thursday, September 25, 2003

6:00 - 6:30 p.m. Social
6:30 - 7:30 p.m. Dinner
7:30 - 8:30 p.m. Speaker

Cost:
\$10.00 - IEEE Members with 48-hour advance reservations.
\$20.00 - non-members
\$5.00 - students
Call (713) 207-IEEE to make your reservations.

See Page 2 for the Continuing Education Schedule!

IEEE WEB ADDRESS

[http://\(www.ieee-houston.org\)](http://www.ieee-houston.org)

IEEE Houston Section
P.O. Box 460014
Houston, Texas
77056-8014

The Chairman's Message

Dwayne Lowry



Summer's here, schools are out, vacations are being planned and taken, and sure as death and taxes, it's getting hot and humid in Houston. But, what a great place to live and practice our trades, right? And, it's great to be a part of the number one IEEE Section in the world, in so many categories. To acknowledge our many accomplishments over the past year, as well as to celebrate our 75 years as a Section, we are planning an awards dinner for late summer.

Dates and times will be posted on our website as soon as they are firmed up. It will be a fun night.

Speaking of awards, the Section is proud to sponsor a summer internship at the Houston Museum of Natural Science. The award this year went to **Lily Banerjee**, a very deserving high school senior from Clear Lake High School whose project was "Compound Eye: For Motion Detection & Discrimination". The award was based on recognition of the quality of the project as well as the communication skills she exhibited at the 2003 Houston Science and Engineer Fair. Congratulations, Lily. We are looking forward to meeting you personally at the awards dinner.

We have been notified that our ComSoc Society Chapter has been recognized as one of only 6 Chapters in North America and 14 worldwide to receive the "Chapter Achievement Award". This award is given by the Membership Development Council to ComSoc Chapters that continuously provide their members with high-level programs and activities. Congratulations to the Chapter and special recognition to its chair, **Ransom Siler**, for his outstanding leadership over the past years.

A hearty welcome to our newest senior members: **Won-Jong Kim**, Control Systems Society; **Kevin Leigh**, Communications Society; **Erich W. Wolz**, Computer Society; and **Michael L. Walker**, Power Engineering Society. We have many more applications that have been submitted and are being processed. Senior membership is important to the individual and the Section and I urge all who meet the qualifications to submit an application.

In a previous column we gave a brief account on the Sections Congress 2002 held last October in Washington, DC. The final report has now been published and is available on the web at <http://www.ieee.org/sc>. Click on "SC2002" and then "Final Report" in the left menu bar. Please note that this is a large PDF file, due to photos and charts included in the document. If you are unable to access the PDF file, you can contact Donna McClelland with your name and address and she will print a copy and send it to you.

Your ExCom will be meeting in late July to select the winners of the first annual IEEE-Houston scholarship award. Call for nominations for the award are on the

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website. Let's make sure that all deserving candidates are nominated for consideration. We'd like nothing better than having a long evening considering the many applications.

Our call over the last months for volunteers didn't go unheeded and we're pleased to announce a couple of new positions: **Shannon Quadros** will be leading the Section efforts in Engineering Council of Houston (ECH). Among other fine programs, this organization drives the internships noted above. Shannon has been attending our ExCom meetings for some time and has eagerly accepted the challenge of leading this effort.

We also welcome **Polo Gutierrez** to lead the PACE program. Polo has been a student branch president during 1992-1993 so brings some good leadership skills to this position and our branch.

We appreciate all of our volunteers for their service, and recognize that things change in our personal and business lives that change the amount of time commitment we can make. The Section strives to match the needs to the availabilities of our volunteers so when your situations change, give us a call so we can match time availability and interests with Section needs. There's always a place for everyone.

Thanks to all who helped man the booth at the OTC in May. The show continues to gain momentum in Houston, trying to get back to its prominence of the late 70's, and is a great place for IEEE to gain exposure to the community and the world.

Other Items of Interest:

- The IEEE Job Site has a valuable new revenue share program for IEEE Sections. Our Section can receive a ten percent commission from the job posting fees of companies which we refer to the Job Site. Single job posts cost \$175 for 30 days and multiple post contracts start at \$570 for four postings annually.

If your company would like to find qualified engineers from around the world we encourage them to enroll their recruitment managers for a free job posting at <http://www.spectrum.ieee.org/jobsite/hrmanagerform/>. This form requires that a member indicate their local Section so that the referral can be tracked for revenue share purposes.

Of course we still have the [FREE job postings](#) here on our website which all companies and individuals should take advantage of.

- When buying a new suit, we consider fit carefully but we often aren't as attentive when we consider how well our jobs fit us. People who do not fit well in their jobs often are stressed out, frustrated, and have to exert more energy when completing tasks that they do not find satisfying. Find out if your job is right for you at <http://www.theinstitute.ieee.org/toc.jsp?isno=05031>
- IEEE Publishes Proceedings of Deans Summit II. PISCATAWAY, N.J., May 30, 2003 - The Institute of Electrical and Electronics Engineers (IEEE) has published the proceedings of "Deans Summit II: Fostering Campus Collaborations," a meeting and conference held in Miami from January 9 to 12, 2003. The summit brought together 149 education and engineering deans and faculty to address campus initiatives for increasing technological literacy

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among pre-college educators and students. For a copy of the proceedings contact: Celeste Torres at c.torres@ieee.org or go to www.ieee.org/organizations/eab/fcc and click on "formal overview" at the bottom of the page.

- The candidates running for IEEE elective positions on this year's ballot have been selected. The list includes those running for board positions for the IEEE Standards Association, Technical Activities, and IEEE-USA. Read more about the candidates at http://www.theinstitute.ieee.org/inst_art.jsp?isno=05031&arnumber=05031_5w.newselections§ion=5
- PIECE – [check their website](#) for a myriad of programs coming to Houston.
- FIND CONFERENCES SCHEDULED TO BE HELD IN OUR SECTION GEOGRAPHY Opportunities may exist here in our section for enhancing technical capabilities. The IEEE Conference Search Web Page can help identify such conferences. Check <http://www.ieee.org/conferencesearch/>.

HAVE A GREAT SUMMER.

Dwayne Lowry
Houston IEEE Section Chair

Houston Section Wins IEEE Award

While at the recent Region 5 conference Donald Dunn, Past Chair, receives the IEEE Regional Activities Board (RAB) Award for "Outstanding Leadership and Results in IEEE Membership Development Activities" for the Houston Section from Cleon Anderson Vice President of IEEE RAB at the recent R5 Conference. This award was presented to the Houston Section for having the largest number increase of new members in 2002 of existing sections within IEEE.



IAS Chapter Meeting

Meeting Date: July 1, 2003
Time: 5:30 PM to 7:00 PM
(Refreshment will be provided)
Place: Bechtel Building
3000, Post Oak Blvd
Houston, TX 77252
Conference Room 4A

Reservations:

Contact - Sunita Kulkarni

Tele: 713 235 2833

Email: skulkarn@bechtel.com

For all of us who have had difficulty keeping up with all of the latest developments in lighting, the National Tech Representative for Advance, Mr. Ross Theis, will be providing an outstanding seminar on the evening of July 1. Ross Theis's office is in Colorado, but he will be coming to Houston to deliver this presentation.

Mr. Theis will cover both Fluorescent and HID technologies, as follows:

FLUORESCENT:

STARTING METHODS
BALLAST FACTOR
T8 vs T5HO
DIMMING AND SWITCHING
DALI
PL-H COMPACTS

HID:

PULSE START
ELECTRONIC
DIMMING

COMPARISON:

T5HO vs HID

SPECIAL FEATURES:

PLUS 90 PROTECTION

Bring your technical or economic questions for candid, detailed answers!

There is no charge for this seminar, but it is sure to provide lots of valuable information.

Senior Membership

Congratulations to the recently elected Senior Members from the Houston Section. For a complete list of the new Senior Members see the attached link. www.ieee.org/organizations/rab/md/smupdates.html

Junel Elevations

Shou-Hsuan S. Huang

Looking for Senior Member Nominations

READ THIS SECTION TO BECOME A SENIOR MEMBER IN THE IEEE.

A goal of our Region is to sponsor as many Senior Members as possible and I am asking your help. The IEEE criteria for Senior Member status is ten years of professional practice including five years of significant performance, and references. (See the nominator letter and application form for clarification on the IEEE website.) If you know an IEEE member who qualifies for Senior Membership, I would like you to nominate him or her by forwarding their nomination to one of the Houston Section Excom members. If you qualify and are not a senior member please reply to one of the Section Excom members. If your are retired and have met the criteria at one time lets get you nominated. Section meetings are the best networking tool to achieve Senior membership.

As an alternative process, you can direct the prospective Senior Member to one of the Houston Section Excom Members. We have a list of several Fellows and Senior Members which we can use for references. The Section will nominate all those qualified who provide a resume and significant performance vita.

Senior Membership in IEEE promotes the value of membership and enhances the status of the member. The is an achievement award lets honor our deserving members.

IEEE CED Program Relocates for 2003-2004

2003-2004 CED seminar program will be hosted by Jacobs Engineering

IEEE CED Seminar Site Relocated for 2003-2004 Seminars

IEEE CED Committee announces that 2003-2004 seminars will be hosted by Jacobs Engineering at their facility located at 5995 Rogerdale Road (West side of Sam Houston Tollway near Bellaire Blvd)

Watch for complete details in the September Pocket Scope.

IEEE Houston Section Scholarships 2003



IEEE See the website for more details

IEEE - Houston Section

2003 Scholarship Selection Criteria

In order to promote the interests of the Institute of Electrical & Electronics Engineers (IEEE) - Houston Section, and in support of its dedication to Engineering and Science, scholarship(s) will be awarded annually to selected applicant(s). For 2003, due to the success of the 2002 IEE - Houston Section Annual Scholarship Golf Tournament, up to three (3) \$1,000 scholarships each, will be awarded to both incoming freshman and full time college students who meet the following criteria:

ELIGIBILITY: Limited to a full time student enrolled in an accredited college or university who:

- Is an IEEE - Houston Section member's child or grandchild
****OR****
- Is a member of IEEE (Student Branch or other)

DISCUSSION: By restricting eligibility as above, scholarships are made available to those full time students who have an association with IEEE. This places applicants on a "level playing field" before selection criteria are applied to determine the scholarship recipients. All scholarships will be awarded on merit.

SELECTION CRITERIA:

Merit

- Candidate is enrolled, or is planning to enroll, in an Engineering or Science Curriculum
- His/her cumulative GPA (High School GPA for entering college freshman), SAT or ACT scores
- Discussion paper

DISCUSSION PAPER:

This document will be a key element in the scholarship selection criteria. Topics should include, but not be limited to, the following:

- Employment experience
- Activities/elected positions
- Career goals
- Honors/Awards
- Personal information
- Why are you seeking this scholarship

To apply, please complete the attached form and mail to:

IEEE - Houston Section
Attention: Scholarship Committee
P.O. Box 460014
Houston, Texas 77056-8014

Deadline for submitting application form and all supporting data is July 3, 2003. Scholarships will be presented by July 31, 2003 and winner(s) will be honored at one of the IEEE - Houston Section Annual Meetings.

IEEE Houston Section Scholarships 2003



IEEE - HOUSTON SECTION SCHOLARSHIP APPLICATION

Applicant's Full Name: _____ Phone No.: _____

Home Address: _____ City: _____ Zip: _____

IEEE - Houston Section Member (Sponsor's Name): _____

Member No: _____

Student Status for: ___ High School Sr. ___ Jr. ___ Soph. ___ Fresh. ___
___ College or Univ

Cumulative Collegiate GPA (Based on 4.0 man.) substantiated by copy of transcript(s): _____

High School GPA - for applicant entering college as freshman: _____

- If High School Student - please provide SAT / ACT Score: _____

College or University: _____ Location: _____

Major or anticipated major: _____

IEEE Student Chapter Member: _____ Yes _____ No

Attach one (1) page essay by student covering:

1. Employment Experience
2. Activities/Elected Positions
3. Personal Information
4. Honors/Awards
5. Career Goals
6. Reasons for seeking this scholarship

Attach up to three (3) letters of endorsement from former teachers, employers, family and friends.

The information provided herewith is correct to the best of my knowledge.

Student's Signature

Date

COMSOC Wins Award

Houston Communications Society announces that they have won a "2003 Chapter Achievement Award" from the IEEE Communications Society. It comes with a certificate and a \$500 honorarium that the COMSOC group hopes to use for one or more awards at the Houston Science Engineering Fair.

The presentation of the award will be made in December at GlobeCom2003 in San Francisco.

Details are at www.comsoc.org, and the announcement is attached.

Winning this award is a great honor for our Chapter, and it is a recognition of the hard work that officers and members have put in over the last several years, developing Houston ComSoc from a faltering chapter to one that serves as an excellent small-chapter model for the Region.

Thomas P. O'Brien, P.E. COMSOC-Chair

IEEE-USA NEWS

NEWS from IEEE-USA

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Copies of "Stolen Jobs" Series Available Free to IEEE Leaders and Media

WASHINGTON (27 May 2003) ? If you're a policy maker or an investigative reporter, you've got to see "Stolen Jobs."

Produced by WKMG-TV, Local 6, in Orlando, Fla., "Stolen Jobs" provides an in-depth look at how some employers take advantage of loopholes in the nation's immigration laws to replace U.S. engineers and computer scientists with cheaper foreign workers on H-1B and L-1 visas.

IEEE-USA, with permission from WKMG, reproduced the series onto CD and is making it available free to IEEE leaders and media sources. Please contact Helen Hall at h.hall@ieee.org or 202-785-0017 for your CD. All 535

members of Congress will also receive a copy. WKMG Investigative Reporter Steven Cooper interviewed affected workers, industry representatives, Sen. Bill Nelson (D-Fla.) and Rep. John Mica (R-Fla.) for "Stolen Jobs," which aired in February and was updated on 20 May.

"The more we investigated, the more alarmed we became," Cooper said. "How had this been happening to the American worker? And why didn't anyone know about it? We felt obligated to share this information with the public.

If this story raised the awareness of some Americans, forced elected officials to reconsider this issue, or simply gave the displaced worker a venue to be heard, then we are deeply gratified to have pursued it to the extent we did."

IEEE-USA is an organizational unit of The Institute of Electrical and Electronics Engineers created in 1973 to promote the careers and public-policy interests of the more than 235,000 electrical, electronics, computer and software engineers who are U.S. members of the IEEE. The IEEE is the world's largest technical professional society. For more information, go to <http://www.ieeeusa.org>.

IEEE Career Alert

IEEE CAREER ALERT for 4 June 2003

Your weekly report on jobs, education, management, and the engineering workplace, from the editors of IEEE Spectrum

IN THIS ISSUE:

1. On-line Versus Face-to-Face
2. The Softer Side of Collaboration
3. Standing Out in the Crowd
4. Texas A&M Starts Up Engineering Program in Qatar
5. Job of the Month: Parker Aerospace

1. On-line Versus Face-to-Face

New collaboration tools are making it easier to work on and manage projects that are dispersed in space and time among many groups. Though the increasing use of collaborative software has raised fears that engineers would become addicted to their workstations, that hasn't happened. Workplace experts say that engineers rely as much as ever on face-to-face interactions. Read on at

<<http://www.spectrum.ieee.org/careers/careerstemplate.jsp?ArticleId=w060103>>

2. The Softer Side of Collaboration

Workplace guru Jon Katzenbach believes it's the emotional aspects of teamwork, rather than the purely factual exchanges, that spark innovation. "If two engineers are in a room together and they're struggling with a difficult design problem, they will take cues from one another that are both visual and personal. . . There will be an emotional connection as they collectively get more excited about innovative answers," Katzenbach told IEEE Spectrum in a recent

interview: <<http://www.spectrum.ieee.org/careers/careerstemplate.jsp?ArticleId=w060203>>

3. Standing Out in the Crowd

Finding a job these days is no cake walk. With so many people chasing so few openings, just getting an employer to notice you is half the battle. Here's how to make sure you stand out from all the rest: <<http://www.todaysengineer.org/May03/finding.asp>>

4. Texas A&M Starts Up Engineering Program in Qatar

Texas A&M University is establishing an engineering campus in the Persian Gulf emirate of Qatar. The first 50 students will enroll this fall, to pursue undergraduate degrees in petroleum engineering (of course) as well as chemical, mechanical, and electrical engineering. The curriculum will be the same as that offered at the home campus. A university spokesperson said the Qatar campus will probably be staffed by existing faculty, but noted that the school is in the process of hiring 100 new faculty for its main campus in each of the next two years. To read the Texas A&M press release, go to <http://tees.tamu.edu/portal/page?_pageid=33.32801&_dad=portal&_schema=PORTAL&p_news_id=495>

5. Job of the Month: Parker Aerospace

Parker Aerospace, a division of Parker Hannifin Corp., is looking for a flight control systems engineer to work on its F-35 flight control actuation technology and other electrohydraulic, electrohydrostatic, and electro-mechanical actuation systems. Candidates should have a bachelor's degree in electrical, software, or aeronautical engineering and at least 8 years' relevant experience. For details, see <<http://www.spectrum.ieee.org/careers/jobmonth.html>>

ANNOUNCEMENT

The IEEE Job Site, available exclusively to IEEE members, can help you locate career opportunities easily and confidentially. Just complete a profile of your qualifications and requirements, and you'll be notified via email when a suitable job becomes available. Top employers know that IEEE members are the most qualified electrotechnology and information-technology professionals in the world. Take a few minutes to register with the IEEE Job Site and check out your career options today!

<<http://www.ieee.org/jobs>>

IEEE Career Alert is prepared weekly by the editors of IEEE Spectrum, the flagship magazine of the Institute of Electrical and Electronics Engineers, read by more than 360,000 people worldwide. You'll find IEEE Spectrum's home page at: <<http://www.spectrum.ieee.org>>

IEEE-USA News

NEWS from IEEE-USA

1828 L Street, N.W., Suite 1202, Washington, D.C. 20036-5104

Contact: Chris McManes

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IEEE-USA Supports Reverse Engineering in Brief before U.S. Supreme Court

WASHINGTON (4 June 2003) - IEEE-USA filed an amicus curiae brief Monday before the U.S. Supreme Court in support of reverse engineering in the Baystate Technologies, Inc., vs. Howard L. Bowers (No. 02-1585) copyright case.

In its brief, IEEE-USA stated that the Federal Circuit's decision in *Bowers vs. Baystate Technologies, Inc.*, 320 F.3d 1317 (Fed. Cir. 2003) "creates substantial uncertainty as to whether copyright holders can unilaterally prohibit the long-standing, widely accepted and essential practice of reverse engineering." The brief asks the Court to review the lower court decision in that light.

Glenn Tenney, chair of the IEEE-USA Intellectual Property Committee (IPC), said the protection of reverse engineering is of great importance.

"The U.S. economy and our competitiveness internationally hinges upon the careful and closely negotiated balance that Congress built into federal intellectual property law," Tenney said. "It would be dangerous to allow software publishers to repeal the Copyright Act with a shrink wrap, simply because they don't like that balance. We sincerely hope that the Court will take up this important case."

Reverse engineering is a common and recognized practice, particularly in computer software, and is extremely important to technological advancement. IEEE-USA defines reverse engineering as "the discovery by engineering techniques of the underlying ideas and principles that govern how a machine, computer program or other technological device works." (IEEE-USA 1997 Position Statement: <http://www.ieeeusa.org/forum/positions/reverse.html>).

According to the IEEE-USA brief, "many persons engage in reverse engineering to gain ideas about how to create competitive or complementary products."

A copy of the brief, which was coordinated by IEEE-USA's IPC, and other relevant resources are available at <http://www.ieeeusa.org/forum/policy/2003/Baystate060203.html>.

Andrew Greenberg and Matthew Conigliaro of Carlton Fields, P.A. of Tampa (www.carltonfields.com), prepared the brief pro bono for IEEE-USA, which was joined by the American Library Association, American Association of Law Libraries, and the Association of Research Libraries. Jonathan Band of Morrison & Foerster, LLP of Washington, D.C., (<http://www.mofo.com/index.cfm>), represented the library associations.

IEEE-USA is an organizational unit of The Institute of Electrical and Electronics Engineers created in 1973 to promote the careers and public-policy interests of the more than 235,000 electrical, electronics, computer and software engineers who are U.S. members of the IEEE. The IEEE is the world's largest technical professional society. For more information, go to <http://www.ieeeusa.org>.

IEEE-USA Today

FROM Washington, DC: *IEEE-USA TODAY* May 2003
 YOUR Monthly U.S. IEEE MEMBER E-ZINE on "Building Careers & Shaping Public Policy"
<http://www.ieeeusa.org>

IN THIS ISSUE:

1. CNN's *MoneyLine* Scheduled to Air Interview Tonight With IEEE-USA Leader on H-1B Issue
2. Engineering Careers Congressional Visits Day Rescheduled for 14-15 July
3. EE Unemployment Rate Reaches Seven Percent
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5. Past IEEE President, IEEE-USA Board Chair Bruno Weinschel Dies at 83
6. IEEE-USA Mass Media Engineering Fellow to Join WNBC-TV

1. CNN's *MoneyLine* SCHEDULED TO AIR INTERVIEW TONIGHT WITH IEEE-USA LEADER ON H-1B

Ron Hira, chair of IEEE-USA's Research and Development Policy Committee, is scheduled to appear on CNN's *Lou Dobbs MoneyLine* tonight (Thursday) at 6 p.m. EDT, discussing H-1B, L-1 and offshore outsourcing issues. Dr. Hira is a research scholar at Columbia University's Center for Science, Policy and Outcomes in Washington, D.C. He was interviewed by CNN's Kitty Pilgrim for the program, which is slated to replay at 11:30 p.m. tonight. For details, go to: <http://www.ieeeusa.org/notable/cnn05-22-03.htm>.

2. ENGINEERING CAREERS CONGRESSIONAL VISITS DAY RESCHEDULED FOR 14-15 JULY

U.S. IEEE members concerned about their careers, the effects of globalization, outsourcing and guest labor on engineering employment, and the health of the U.S. engineering workforce are invited to share their concerns with Members of Congress. The IEEE-USA's Engineering Careers Congressional Visits Day has been rescheduled for 14-15 July. For more information, visit: <http://www.ieeeusa.org/forum/H1Bcvd/index.html>.

3. EE UNEMPLOYMENT RATE REACHES SEVEN PERCENT

The unemployment rate for electrical engineers (EEs) rose to an unprecedented seven percent in the first quarter of 2003, according to the U.S. Department of Labor. For details, go to <http://www.ieeeusa.org/releases/2003/042803pr.html>.

4. IN THIS MONTH'S *TODAY'S ENGINEER*: R&D SUPPORT, DUAL-CAREER LADDERS, PRIVACY VS. SECURITY, RECYCLING

IEEE-USA was among six engineering societies that sponsored a two-day symposium in March to review federal R&D plans and budgets, as well as to carry a message to Congress about the need for more R&D funding. Many participants visited federal agency leaders to talk about issues. Find out what they had to say in the latest issue of *Today's Engineer* at <http://www.todaysengineer.org/May03/R&D.asp>.

Other articles in the monthly IEEE-USA webzine cover finding a job in an unstable economy, previewing your new employees ahead of time, rewarding and maintaining technical excellence with dual-career ladders, trading privacy for security with a national identification system, and making recycling and reuse more efficient. To see all the articles in the latest issue of *Today's Engineer*, go to <http://www.todaysengineer.org/>.

5. PAST IEEE PRESIDENT, IEEE-USA BOARD CHAIR BRUNO WEINSCHTEL DIES AT 83

Dr. Bruno O. Weinschel, 1986 IEEE President and 1978-1979 chair the IEEE United States Activities Board, passed away 6 May from renal failure. For details, go to <http://www.ieeeusa.org/notable/weinschel.htm>.

6. IEEE-USA MASS MEDIA ENGINEERING FELLOW TO JOIN WNBC-TV AS INTERN

Ms. Joy Ku, an IEEE student member in Palo Alto, Calif., this month was named an IEEE-USA Media Engineering Fellow and will be assigned as an intern to WNBC-TV in New York City from August to November. Ms. Ku is the fourth IEEE-USA Mass Media Engineering Fellow and is part of the AAAS Mass Media Science & Engineering Fellowship program designed to increase technological literacy. For details about IEEE-USA's involvement, contact p.mccarter@ieee.org, or go to <http://www.ieeeusa.org/newspubs/massmedia.html>.

IEEE WHAT'S NEW

WHAT'S NEW @ IEEE FOR MEMBERS

VOLUME 4 NUMBER 5 MAY 2003

An HTML version of this newsletter can be viewed on our online archive at <http://www.ieee.org/products/whats-new/wmem0503.htm>

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6. New Mortgage Services Offered Through IEEE Financial Advantage Program
7. Nanotechnology May be Critical to Future Space Exploration
8. Proceedings of 2003 IEEE/EMBS Neural Engineering Conference Now Available
9. Baltimore Hosts International Multimedia Conference in July
10. IEEE-USA Issues Action Alerts on Career, Technology Issues
11. Section Events Contribute to Success of Senior Member Elevations
12. Book Helps Engineers Understand Complex Computer Simulations
13. IEEE-SA Board Endorses Kitzantides for IEC Vice President

TRY A NEW IEEE SOCIETY Dues now half price! <http://www.ieee.org/addservices>

1. 2004 IEEE PRESIDENT-ELECT CANDIDATES REVEALED

As the race for the 2004 IEEE President-Elect gets going, voters should become better acquainted with the candidates nominated by the IEEE Board of Directors. There are three candidates: W. Cleon Anderson of Salt Lake City, Utah, USA; Vijay Bhargava of Victoria, British Columbia, Canada; and Michael Lightner of Boulder, Colorado, USA. Learn more about the candidates' views on a wide range of personal and professional topics in a recent Institute poll:

[http://www.theinstitute.ieee.org/inst_art.jsp?isno=04031&arnumber=04031_4w.featurepreselect\\$ion=4](http://www.theinstitute.ieee.org/inst_art.jsp?isno=04031&arnumber=04031_4w.featurepreselect$ion=4)

2. NETWORKING: GETTING TO KNOW YOU

Partly because of today's prevalent use of email and our increased mobility, many modern professionals lack the skills necessary to handle the challenges associated with traditional, face-to-face networking. Part finesse, part discretion and part basic manners, networking is a critical skill for all engineers. In the latest edition of IEEE-USA Today's Engineer: <http://www.todaysengineer.org/April03/networking.asp>

3. THREE MILLION MONTHLY DOWNLOADS: IEEE ONLINE USAGE REACHES NEW MILESTONE

Usage of IEEE online technical information reached another new milestone when more than 3.2 million article PDFs were downloaded by researchers during the both of the first two months of this year. Users downloaded 3.238 million papers in January 2003, and 3.208 papers million in February. This is more than double the number of downloads during the same two-month period in 2002. The increase has been driven by new IEEE customers and greater use of online articles by IEEE members. For information on accessing IEEE papers online, visit: <http://ieeexplore.ieee.org>

4. COPYRIGHT WARS: IEEE SPECTRUM REPORTS

A brave new world of digital entertainment awaits, but as IEEE Spectrum magazine reports, this future risks being stalled by the lack of consensus on digital copyright control. The consumer electronics industry wants abundant content to be readily and cheaply available to drive the sale of new products; the entertainment industry, meanwhile, wants fair remuneration for the use of that content. These potentially contradictory goals are leading to heated battles. Read more about the war:

<http://www.spectrum.ieee.org/WEBONLY/publicfeature/may03/intro.html>

5. H-1B QUOTA HOT ISSUE AS UNEMPLOYMENT ESCALATES AMONG U.S. ENGINEERS

The law that raised the number of H-1B visas to 195,000 a year is set to expire on 30 September, reverting the allowance to the 1999 level of 65,000. According to a recent WorkCircuit article, a heated debate is brewing as a result. Proponents of the 65,000-visa quota cite joblessness among U.S. electrical engineers, which has now grown to 7%, and the additional strain this has on government resources via unemployment benefits. Meanwhile, high-tech employers wish to maintain the 195,000-visa quota as they, among other things, have come to rely on the accessibility of cheaper imported labor. To read more, get IEEE-USA's views, or see other unemployment figures, visit: <http://www.theworkcircuit.com/story/OEG20030414S0055>

IEEE WHAT'S NEW-CONT

6. NEW MORTGAGE SERVICES OFFERED THROUGH IEEE FINANCIAL ADVANTAGE PROGRAM

The IEEE Financial Advantage Program (FAP) now offers a new mortgage program that provides competitive mortgage rates. This service is offered to IEEE members at a discounted rate and includes a variety of loan options, fast loan approval and professional guidance offered to each member. This program is being offered in conjunction with Wachovia Corporate Mortgage Services and is available to all members inside the United States. For more details this and other FAP services, go to: <<http://www.ieee.org/fap>>

7. NANOTECHNOLOGY MAY BE CRITICAL TO FUTURE SPACE EXPLORATION

A recent EETimes article indicates that the NASA Ames Research Center is dedicating a significant portion of its staff to the understanding of the potential of nanotechnology in space exploration. According to the article, the immediate challenge for the scientists is to develop processing systems for nanomaterials and then to uncover purposeful materials. If ultimately plausible, NASA envisions such mechanisms as "micro-rovers" and "micro-spacecraft" able to navigate celestial objects and gather massive amounts of data. Read more:

<<http://www.eetimes.com/at/news/OEG20030502S0045>>

8. PROCEEDINGS OF 2003 IEEE/EMBS NEURAL ENGINEERING CONFERENCE NOW AVAILABLE

The proceedings of the 1st International IEEE/EMBS Conference on Neural Engineering have been released and are now available from the IEEE Online Catalog & Store. Topics include neuroprosthetics, neural signal processing, neuro-robotics, brain imaging, and learning memory and behavior. To find out more, visit:

<<http://shop.ieee.org/store/product.asp?prodno=EX606>>

What's New Special - Use Code WNI for 15% Off - order instructions below

9. BALTIMORE HOSTS INTERNATIONAL MULTIMEDIA CONFERENCE IN JULY

The 2003 IEEE International Conference on Multimedia & Expo (ICME) is set to discuss the state-of-the-art research, development, and implementations of multimedia systems, technologies and applications. The conference is being held in Baltimore, Maryland, USA from 5 to 9 July. Topics covered include virtual reality and 3-D imaging, signal processing and media integration, multimedia communications and networking, multimedia security and content protection, and multimedia standards. For more information or to register, visit: <<http://www.icme2003.org>>

Don't miss the next conference you need for your career. IEEE sponsors more than 300 technical conferences and workshops each year, highlighting the latest technological advances. Find events through the IEEE ConferenceSearch Web site at: <<http://www.ieee.org/conferencesearch/>>

10. IEEE-USA ISSUES ACTION ALERTS ON CAREER, TECHNOLOGY ISSUES

IEEE-USA has released four grassroots action alerts asking U.S. IEEE members to communicate with the U.S. Congress on the H-1B Temporary Work Visa quota, unsolicited commercial email (i.e. spam), national nanotechnology legislation, and funding for federal computer/IT security programs. The full texts of IEEE-USA's action alerts, along with tools for communicating with Congress, are available online at the IEEE-USA Legislative Action Center at: <<http://www.capwiz.com/ieeusa/>>

11. SECTION EVENTS CONTRIBUTE TO SUCCESS OF SENIOR MEMBER ELEVATIONS

The number of people who became IEEE Senior Members soared to an all-time high in 2002 with more than 1,830 individuals being elevated to the highest IEEE membership category for which a member can apply. Part of this growth, writes The Institute, can be credited to workshops and special events that IEEE Sections have organized to help members complete their applications. Read more about the events and how to apply for Senior membership at: <http://www.theinstitute.ieee.org/inst_art.jsp?isno=05031&arnumber=05031_5w.featureseniormembers§ion=4>

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12. BOOK HELPS ENGINEERS UNDERSTAND COMPLEX COMPUTER SIMULATIONS

"Complex Electromagnetic Problems and Numerical Simulation Approaches," a book from Wiley-IEEE Press, addresses very complex problems by systematically developing models of increasing complexity, indicating along the way the range of their applicability. The book is accompanied by software that will help the reader experiment with the various parameters of the model, enhancing understanding of the physics involved and improving the reader's skills with model development and meaningful validation studies. Find out more about this new book at: <<http://www.wiley.com/remtitleinternational.cgi?isbn=0471430625>>

IEEE members: Receive a 15% discount on any Wiley-IEEE Press titles. Use code 18493 at checkout.

13. IEEE-SA BOARD ENDORSES KITZANTIDES FOR IEC VICE PRESIDENT

The IEEE Standards Association (IEEE-SA) Board of Governors unanimously endorsed at its February 27 meeting the nomination of Mr. Frank K. Kitzantides for the office of the International Electrotechnical Commission (IEC) Vice President and Chairman of the Standardization Management Board (SMB). The election

IEEE WHAT'S NEW-CONT

will take place at the 67th IEC General Meeting in Montreal, Canada, in October of this year. The term of office is 2004 to 2006. For more details: <<http://standards.ieee.org/announcements/fkiecvp.html>>

WHAT'S NEW @ IEEE SPECIAL - 15% OFF SELECT IEEE PRODUCTS LISTED IN THIS ISSUE!

As a thank you to WHAT'S NEW @ IEEE subscribers, our readers receive a 15-percent discount on the purchase of any of the specially noted books and conference proceedings listed in this newsletter. When ordering from the IEEE Online Catalog & Store, located at <<http://shop.ieee.org>>, include the code WNI in the special instructions field at "final checkout." If ordering by phone, provide the code WNI to your customer service representative. Offer expires on 31 Dec. 2003.

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IEEE-USA NEWS

NEWS from IEEE-USA

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Copies of "Stolen Jobs" Series Available Free to IEEE Leaders and Media

WASHINGTON (27 May 2003) ? If you're a policy maker or an investigative reporter, you've got to see "Stolen Jobs."

Produced by WKMG-TV, Local 6, in Orlando, Fla., "Stolen Jobs" provides an in-depth look at how some employers take advantage of loopholes in the nation's immigration laws to replace U.S. engineers and computer scientists with cheaper foreign workers on H-1B and L-1 visas.

IEEE-USA, with permission from WKMG, reproduced the series onto CD and is making it available free to IEEE leaders and media sources. Please contact Helen Hall at h.hall@ieee.org or 202-785-0017 for your CD. All 535

members of Congress will also receive a copy. WKMG Investigative Reporter Steven Cooper interviewed affected workers, industry representatives, Sen. Bill Nelson (D-Fla.) and Rep. John Mica (R-Fla.) for "Stolen Jobs," which aired in February and was updated on 20 May.

"The more we investigated, the more alarmed we became," Cooper said. "How had this been happening to the American worker? And why didn't anyone know about it? We felt obligated to share this information with the public.

If this story raised the awareness of some Americans, forced elected officials to reconsider this issue, or simply gave the displaced worker a venue to be heard, then we are deeply gratified to have pursued it to the extent we did."

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