



THE POCKET SCOPE



The Institute of Electrical and Electronics Engineers, Inc.

Volume 55, Number 1

September 2004

SCOPE NOTES

September Houston Section News

here:
ESS (Houston Engineering and Scientific Society)
430 Westheimer@Yorktown

hen: Thursday, September 23, 2004
6:00 - 6:30 p.m. Social
6:30 - 7:30 p.m. Dinner
7:30 - 8:30 p.m. Speaker

ost:
10.00 - IEEE Members with 48-hour advance reservations.
20.00 - non-members
5.00 - students
all (713) 207-IEEE to make your reservations.

See Page 3 for the Continuing Education Schedule!

IEEEWEB ADDRESS
<http://www.ieee-houston.org>

IEEE Houston Section
P.O. Box
460443
Houston, Texas
770568014

The Chairman's Message

Gilroy Dolor



The Chairman's Message

Beginning the second half of the year, our first Section Meeting will be on September 23, 2004. The speaker for the September meeting will be Darby Vicker. Since graduating from Iowa State University in May 2000, Darby has been working in the Applied Aeroscience and CFD group, EG3, at NASA's Johnson Space Center. His experience includes applying the Chimera CFD technique to the X-38 Crew Return Vehicle and the Space Shuttle Launch Vehicle. The topic of discussion at the section meeting is titled "Computational Fluid Dynamics Analysis for the STS-107 Accident Investigation and Return-To-Flight Effort."

The Houston Section 2004-2005 CED Seminar Schedule will start up in October with several courses that cover new and exciting topics. All seminars are held at Jacobs Engineering, except the special all day seminar on October 22 at Powell. The topic for this all day seminar at Powell is "Digital Communications for Industrial Plants." For more details, visit the IEEE Houston Section website <http://www.ieee-houston.org/>.

We did not have any new Senior Members elevated this month in the Houston Section. We are always looking for members interested in becoming a Senior Member in the IEEE. The following criteria are required for elevation to Senior Member status: 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 Houston Section EXCOM members.

Due to a scheduling conflict, our 3rd Annual IEEE-Houston Scholarship Golf Tournament has been rescheduled for October 8. We hope to see you all out there. We need your support! Come join us for a wonderful time. Remember, proceeds from this event will go to providing \$1,000 scholarships to Section member family and children.

Speaking of scholarships, the scholarship committee met earlier this month to review the large number of scholarship applications. Following the review and grading process, five (5) extremely deserving individuals were chosen to be the Houston Section's 2004 Scholarship recipients:

- Jared Kowis
- Lauren McCarthy
- Mohit Joshipura
- Kourtney Davis

Chair Message-CONT

Michael Oluwagbemi

Congratulations to you all! As mentioned, we received many scholarship applications this year. Thank you all for applying! With the continued success of the Scholarship Golf Tournament, we look forward to awarding more scholarships in 2005. Remember the Executive Committee and I look forward to your feedback comments. If you are interested in getting involved in the local IEEE section, let us know, volunteer members are always needed. We have plenty of opportunities. I

Gilroy Dolor
Houston Section Chair

September 23 Section Meeting

The next meeting of the IEEE Houston Section will be held Thursday, September 23rd, 2004.

Please RSVP via calling (713) 207-IEEE to make your reservations by Tuesday September 21st, 2004. Please include your name and company name in the voice message. You can also send an e-mail to P.J. Donner at pjdonner@ieee.org to confirm your reservation.

Time and date: 6:00 PM to 6:30 PM Social, 6:30 PM to 7:30 PM Dinner and 7:30 PM to 8:30 PM Presentation.

Topic: Computational Fluid Dynamics Analysis for the STS-107 Accident Investigation and Return-To-Flight Effort

[DESCRIPTION TO FOLLOW]

Speaker: Darby Vicker graduated with a B.S. in Aerospace Engineering from Iowa State University in May of 2000. For the past 4 years Darby has been working in the Applied Aeroscience and CFD group, EG3, at NASA's Johnson Space Center. His experience includes applying the Chimera CFD technique to the X-38 Crew Return Vehicle and the Space Shuttle Launch Vehicle.

IEEE CONTINUING EDUCATION ON DEMAND

2004-2005 REGISTRATION FORM

Name:
 Company:
 Mailing Address:
 City/State:
 Zip:
 Email:
 Telephone:
 Fax:
 IEEE Membership Number:

Mail a copy of your completed registration form along with your check payable to **IEEE CED SEMINARS** at the following address:
 IEEE CED SEMINARS

PAT ROGERS
 SOUTHWEST POWER
 425 BLUEBERRY STREET
 HOUSTON, TX 77018
progers@swpower.com

Registration receipts will be available upon request **at the seminars**.
 For a cancellation refund, telephone Pat Rogers by the Friday before the seminar at:

Phone: 713.696.9922
 Fax: 713.696.9983
 Email: progers@swpower.com

IEEE Continuing Education on Demand Completion Certificate with Continuing Education Units (CEUs) is provided after receipt of both nightly questionnaires and seminar evaluation sheets.

Please direct seminar questions to Paul Barrett at 713.598.0790

Please check the IEEE Houston Section website for the latest schedule and course information.

<http://www.ieee-houston.org>

IEEE CONTINUING EDUCATION ON DEMAND

The purpose of IEEE Houston Section Continuing Education on Demand is to provide modern practical industrial power application topics that supplement the daily work activities of the practicing graduate electrical engineer.

The seminars are intended to stimulate further study and discussion for learning continuance throughout the working career. Topics apply to heavy industries: oil and gas, petro-chem, cogen, pulp and paper, etc.

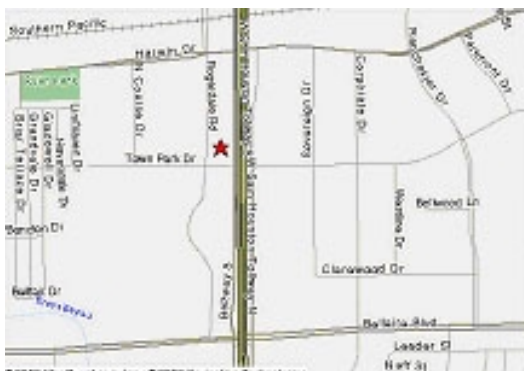
Instructors are application engineers, manufacturing specialists and expert consultants who provide a blend of diverse engineering perspectives.

The cost of each seminar is \$70.00 for IEEE members. The **check must be received the Friday before the Seminar start date**. The cost for non-IEEE members is \$140.00. The cost for student members is \$50.00.

Registration closes at 5:00pm the Friday before each seminar.

The following 2004-2005 seminar schedule defines the topics, dates and times. A course syllabus is available on request. Minimum class size is twenty for each seminar. Seating is limited and filled on an as received basis. Presentation documents are provided. A buffet is served from 5:00PM-6:00PM.

Seminar location:
Jacobs Engineering
 5995 Rogerdale Road
 Houston, TX. 77072



Seminar Title	C code	Date	Amount
Arc Flash / Arc Resistance	705	Oct. 12/13	\$
Protective Relay 1 Beckwith	311	Oct. 26/27	\$
IEC Electrical Equipment	802	Nov. 9/ 10	\$
Protective Relay 2 Multilin	312	Feb. 1/2	\$
IEC - NEC Area Classification	803	Feb. 15/16	\$
Protective Relay 3 Basler	313	Mar. 1/2	\$
Field Testing of Large Power Transformers	904	Mar. 15/16	\$
Protective Relay 4 SEL	314	Mar. 29/30	\$
National Electric Code	920	Apr. 12/13	\$
Advanced MV Switchgear and Breaker Stds	307	Apr. 26/27	\$
Total Paid:			\$

Enter amount for each seminar:

IEEE member registration: \$ 70.00
 Non-member registration: \$140.00
 Student member registration: \$ 50.00

Fall of 2004 IEEE Seminar Schedule

Arc Flash / Arc Resistance (705)

James Bowen, Powell Electric Mfg. Co.

Oct. 12/13, 2004 6:00-8:50PM

Review of fundamentals and design theories. Post event forensic observations and lessons learned. **[.0.5 CEU]**

Protective Relay 1 - Beckwith (311)

Wayne Hartmann, Beckwith Electric Co.

Oct. 26/27, 2004 6:00-8:50PM

Review of Beckwith relay design fundamentals and application considerations **[.0.5 CEU]**

IEC Electrical Equipment (802)

Tom Malone, Areva T&D Corp.

Nov. 9/10, 2004 6:00-8:50PM

Reviews IEC guidelines and standards for electrical distribution equipment. Presentation will focus on power transformers and switchgear. **[.0.5 CEU]**

Spring of 2005 IEEE Seminar Schedule

Protective Relay 2 - GE Multilin (312)

Jackov Viko, GE Multilin -Canada

Feb. 1/2, 2005 6:00-8:50PM

Review of GE Multilin Relay design fundamentals and application considerations. **[.0.5 CEU]**

IEC / NEC Area Classification (803)

Bob Johnson, Source IEC

Feb. 15/16, 2005 6:00-8:50PM

A detailed presentation on IEC's approach to hazardous area classifications and related international standards. **[.0.5 CEU]**



IEEE

IEEE
 Houston
 Section

2004-2005

Continuing
 Education
 On Demand



Protective Relay 3 - Basler (313)

Gerald Dalke, Basler Electric Co.

Mar. 1/2, 2005 6:00-8:50PM

Review of Basler relay design fundamentals and application considerations. **[.0.5 CEU]**

Field Testing of Large Power Transformers (904)

Randy Slaybaugh, Substation Services, Inc.

Mar. 15/16, 2005 6:00-8:50PM

A detailed presentation on field testing techniques and considerations for large power transformers. **[.0.5 CEU]**

Protective Relay 4 - SEL (314)

David Costello, SEL Inc.

Mar. 29/30, 2005 6:00-8:50PM

Review of SEL relay design fundamentals, set-up, programming and application considerations. **[.0.5 CEU]**

National Electric Code (920)

Eddie Guidry, Fluor Corp.

April. 12/13, 2005 6:00-8:50PM

Review and update on current NEC. Lecture will focus on design issues and application considerations. **[.0.5 CEU]**

Advanced MV Switchgear and Breaker Stds. (310)

James Bowen, Powell Electric Mfg. Co.

Apr. 26/27, 2005 6:00-8:50PM

Reviews advanced theories and application considerations related to MV Swgr and Ckt Bkr design. **[.0.5 CEU]**

Houston Section CED Seminar on the East Side



**IEEE
Houston
Section**

2004-2005



**Continuing
Education
On Demand**

IEEE CED Digital Communications Seminar

IEEE CED Houston will be presenting an 8 hour technical seminar on Digital Communications for industrial plants. The all day seminar is scheduled for October 22 and will held at the Powell Electric training facility, 8550 Mosley Road. (8:00 a.m.-5:00 p.m.) (Coffee and rolls will be available 7:00 – 8:00)

This presentation will be an in-depth technical review of relay communication protocols, data networks, serial data communications, and related subjects. The subject material will be presented by Mark Adamiak, P.E., a GE engineer with an outstanding reputation for expertise in digital communications. All attendees will receive an IEEE CED certificate for 0.7 CEU (7 hours). Cost for this all day seminar is \$70 for IEEE members, \$140 for non-members. Fee includes lunch and presentation study materials. Seating is limited so send in your reservations early. Seminar registration will close at 5:00 p.m. , Tuesday Oct 19th.

The following information is required with your reservation:

Name: _____ Company: _____

Address: _____

Telephone: _____ Fax: _____

Email _____

IEEE Membership Number: _____

Make Checks payable to IEEE CED Seminars. Send to:

IEEE CED Seminars

Pat Rogers

Southwest Power

425 Blueberry St., Houston, TX 77018

progers @swpower.com 713.696.9922 Fax 713.696.9983

Seminar questions: Contact Paul Barrett 713.598.0790

December 2 Section Meeting

December 2, 2004 Section Meeting

Topic: Building Six Sigma- Based Process Improvement Systems

Consensus Strategies partner with organizations to build customized systems tailored to meet the unique company needs and culture. It integrates into your organization the concepts of:

- a measurement system
- a process orientation
- customer focus
- team-oriented management
- continuous performance improvement

Speaker: Mona K. Draper, the only GE certified six sigma consultant in the Houston area, worked 20 years in industry prior to becoming a consultant. While working in the energy arena as an internal consultant, she designed and implemented a process improvement system that demonstrated increased profitability and reduced operating costs. She is one of a group of seven consultants selected out of 500 applicants by GE Capital Services to train their leaders in GE's Six Sigma process improvement philosophy. She consults with both service and manufacturing companies in six sigma-based process improvement systems as well as all facets involved in organizational change management. Pete Pande acknowledges her contribution to the best selling management book *The Six Sigma Way*. Ms. Draper holds a MS in Statistics and has published papers in regression analysis, forecasting, facilitation and six-sigma based process improvement.



New Senior Members

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.

CED Seminar News

CED Houston announces the following revised registration fee schedule for its new 2004-2005 technical seminars. The registration fee for IEEE members is \$70. The fee for non-members is \$140. The registration fee for student IEEE members will be \$50 **Seminar registration and payment must be received the Friday before the seminar.** *Seminar registration closes at 5:00 p.m. the Friday before the seminar. No exceptions. Pre-registration with "payment at the door" is acceptable under certain circumstances. Anyone promising to pay at the door and failing to show up will be debited and invoiced for the full amount of the registration fee.*

IEEE Career Alert

IEEE CAREER ALERT for 1 Sep 2004

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

IN THIS ISSUE:

1. Not Your Father's MBA
2. Training to Counter Offshoring
3. The Engineer's Conflict
4. Workers Working Less, the OECD Says
5. CORRECTION: New Faces of Engineering

1. Not Your Father's MBA

Traditional MBA programs are giving way to graduate degrees tailored to the business world's increasing emphasis on technology, global expansion, and entrepreneurship, according to a recent article in IEEE Spectrum. Choosing the right program depends on your career goals, family commitments, job, and finances. Here's how to find a program that suits you:

<<http://www.spectrum.ieee.org/WEBONLY/resource/sep04/0904care.html>>

2. Training to Counter Offshoring

Protectionist barriers such as visa restrictions may only accelerate the trend by U.S. companies to move software development offshore, says IT market analyst Edward Yourdon in a new book, "Outsource: Competing in the Global Productivity Race." The solution? The U.S. government could invest more in education, including "lifelong education" for adults who find their university training is no longer relevant. Yourdon also recommends a change in U.S. tax and accounting rules to encourage long-term corporate investment in workers and productivity improvement. Read Computerworld's review of the book at

<<http://www.computerworld.com/careertopics/careers/story/0.10801.95255.00.html?SKC=careers-95255>>

3. The Engineer's Conflict

Brian Fuller has figured out why offshoring is such a hot-button issue for the tech industry. "Engineers, by virtue of their training and intellect, see both sides of the argument clearly," he writes in EE Times. Engineers "acknowledge the larger economic realities, with the pageant of history as a likely guide to future events....On the other hand, for those same savvy realists, it's 'my job' that's at risk as outsourcing gains a foothold in design. My job. My career. My family. My future." Read on at

<<http://www.eetimes.com/showArticle.jhtml?articleID=30900125>>

4. Workers Working Less, the OECD Says

You may feel you're working harder than ever, but according to new figures from the Organisation for Economic Co-operation and Development, the average worker in every industrialized country clocked fewer hours in 2002 than he did in 1970. The declines were not uniform, to be sure. U.S., Australian and Swedish workers saw only a small drop in hours, while those in Germany, France, the Netherlands, Norway, and Denmark experienced a greater than 20% drop in work hours. See for yourself at

<http://www.oecd.org/document/13/0,2340,en_2649_201185_31781197_1_1_1_1.00.html>

5. CORRECTION: New Faces of Engineering

In the 11 August Career Alert, we mentioned a new campaign to find the New Faces of Engineering and highlight the achievements of young engineers around the world. What we didn't make clear is that nominations need to be passed through one of the sponsoring engineering societies, such as IEEE. So if you know of an outstanding young engineer, e-mail your nomination to Helen Hall, <<mailto:h.hall@ieee.org>>, by 1 October.

To obtain the nomination form, visit

<http://www.eweek.org/site/News/Eweek/2005_Nominations.shtml>

For more on last year's New Faces finalists, see

<<http://www.eweek.org/site/Engineers/newfaces2004/index.shtml>>

IEEE Career Alert is part of the What's New @IEEE email news service. For more information on subscribing to other What's New newsletters, visit <<http://whatsnew.ieee.org/>>

IEEE Career Alert

IEEE CAREER ALERT for 8 Sep 2004

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

IN THIS ISSUE:

1. U.S. IT Hiring To Remain Sluggish This Year
2. For Indian IT workers, Too Few Jobs
3. IT Outsourcing Not Always Profitable
4. Why Bad Bosses Happen to Good Workers

1. IT Hiring To Remain Sluggish This Year

Job-growth in the U.S. information-technology sector is expected to shrink this year, according to survey released today by the Information Technology Association of America, a trade group. Hiring managers said that they plan to add about 220,000 jobs this year, 270,000 fewer jobs than last year, according to a nationwide survey of 500 hiring managers from IT and nontech companies. "This is still not the job market America's IT workers have been hoping for," ITAA president Harris N. Miller said in a statement. The report is only available to registered ITAA users, but a summary of the report's findings are available at <http://home.businesswire.com/portal/site/google/index.jsp?ndmViewId=news_view&newsId=20040908005210&newsLang=en>

2. For Indian IT workers, Too Few Jobs

India's IT industry holds a paradox, a recent story in Time Asia notes. While business is booming, and companies there may hire 75,000 to 100,000 new IT workers this year, "for hundreds of thousands of starry-eyed young men and women who are drawn to the IT sector in the hope that it will provide a way out of India's crushing unemployment problem, the promise of a high-paying job is turning out to be a mirage," the report notes. Read on at <<http://www.time.com/time/asia/magazine/article/0,13673,501040913-692946,00.html>>

3. IT Outsourcing Not Always Profitable

A recent story in eWeek finds some U.S. companies that tried outsourcing software development are having second thoughts. The article cites a survey by Boston-based IT research company AMR Research Inc., which found that less than one-third of 220 companies surveyed are satisfied with the cost savings enjoyed by the IT work they outsourced. "Still, AMR predicts that the number of companies that will use IT outsourcing in the next two years will grow significantly," the story says. Read on at <<http://www.eweek.com/category2/0,1738,1543526,00.asp>>

4. Why Bad Bosses Happen to Good Workers

People sometimes actually prefer bad bosses and can be complicit in making them destructive. So contends a new book, "The Allure of Toxic Leaders," by Jean Lipman-Blumen, a professor of public policy and organizational behavior at Claremont Graduate University. The book concludes that many employees remain loyal to CEOs who abuse power, cook finances and otherwise virtually destroy their companies because they feeling uncertain over their own job security. A recent Wall Street Journal article discusses what to do if you find yourself so conflicted:

<<http://www.careerjournal.com/jobhunting/jungle/20040908-jungle.html>>

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 homepage at <<http://www.spectrum.ieee.org/>>

IEEE Career Alert is part of the What's New @IEEE email news service. For more information on subscribing to other What's New newsletters, visit <<http://whatsnew.ieee.org/>>

IEEE NEWS

Here's your report on news around the IEEE, from the editors of The Institute. The current version of The Institute can always be found at <<http://www.ieee.org/theinstitute>>

IN THIS ISSUE:

1. From Outsourcing to Plagiarism: The Candidates for President-Elect Respond
2. What You Need to Know for This Year's Election
3. Standing Up for a Better E-Ballot Box
4. Marketplace of Ideas: Is E-Voting Ready for Prime Time?
5. Offering Consultants a Helping Hand
6. In the Mood for Moog
7. IEEE Seeks Nominees for "New Faces of Engineering" Program
8. Fleming Valve Is Newest IEEE Milestone

Subscription info and member number are at the end of the e-mail. Complete URLs are contained between the < > symbols.

1. From Outsourcing to Plagiarism: The Candidates for President-Elect Respond
The candidates for 2005 IEEE President-Elect — Michael R. Lightner, Levent Onural, and James M. Tien — presented their views on issues critical to members at the 16th Annual Candidates Night, hosted by the Philadelphia Section in June. The three are on this year's election ballot. Read what they had to say at <http://www.theinstitute.ieee.org/portal/index.jsp?pageID=institute_level1_article&TheCat=2201&article=tionline/legacy/inst2004/sep04/9w.candi.xml>

2. What You Need to Know for This Year's Election
Begin by looking for the Annual Election ballot in your mailbox this month. In addition to the three candidates in the race for 2005 IEEE President-Elect, 40 others are running in 16 contests held in the IEEE's various divisions and regions. Plus you have to vote on an amendment to the IEEE Constitution, which is included with the ballot and other election materials. Highlights of the revisions to the constitution are at <http://www.theinstitute.ieee.org/portal/index.jsp?pageID=institute_level1_article&TheCat=2202&article=tionline/legacy/inst2004/sep04/9w.namend.xml>

3. Standing Up for a Better E-Ballot Box
It won't be ready for this year's U.S. presidential election. It could be ready before the next one, four years hence. We're talking about an IEEE standard that specifies the performance requirements of electronic voting machines. Find out more at <http://www.theinstitute.ieee.org/portal/index.jsp?pageID=institute_level1_article&TheCat=2201&article=tionline/legacy/inst2004/sep04/9w.fballot.xml>

4. Marketplace of Ideas: Is E-Voting Ready for Prime Time?
Several countries use electronic voting machines, but the technology has been plagued, at least in the United States, by questions of accuracy and security fears. What must be done before e-voting is safe, secure, and reliable? Weigh in at <<mailto:institute@ieee.org>>

5. Offering Consultants a Helping Hand
For members turning to consulting for a living, the IEEE offers a host of products and services to help them run their businesses. Perhaps most useful are the IEEE Con-

IEEE NEWS - Cont.

sultants' Networks where consultant-engineers can meet and discuss the trials and tribulations that many in one-person operations would otherwise face on their own. The networks also organize educational programs and that prerequisite of so many successful careers—networking opportunities. Find out more at http://www.theinstitute.ieee.org/portal/index.jsp?pageID=institute_level1_article&TheCat=1010&article=tionline/legacy/inst2004/sep04/9w.prodserv.xml

6. In the Mood for Moog

He's collaborated with musical greats like Stevie Wonder, Mick Jagger, and Chick Corea, but for IEEE Life Member Bob Moog, his 50-year career in electronic musical instruments is all just an extension of work he did while tinkering as a kid in the basement of his New York City home. Read more about Moog at http://www.theinstitute.ieee.org/portal/index.jsp?pageID=institute_level1_article&TheCat=1016&article=tionline/legacy/inst2004/sep04/9w.mempro.xml

7. IEEE Seeks Nominees for "New Faces of Engineering" Program

The IEEE is seeking nominations of bright young engineers doing exemplary work to be included in this new program to be showcased during U.S. Engineers Week 2005. The New Faces program highlights the vitality, diversity, and rich contributions of the world's young engineers. Submit your nomination by 1 October at http://www.eweek.org/site/News/Eweek/2005_Nominations.shtml

8. Fleming Valve Is Newest IEEE Milestone

A century ago, John Ambrose Fleming ushered in the electronic age with the invention of his diode valve, a vacuum tube that allowed electrical current to flow in one direction, but not the other. IEEE President Arthur Winston in July presented University College London—where Fleming had been a professor of electrical engineering—with an IEEE Milestone in Electrical Engineering and Computing, commemorating Fleming's diode. Find out more about Fleming's work at http://www.theinstitute.ieee.org/portal/index.jsp?pageID=institute_level1_article&TheCat=1008&article=tionline/legacy/inst2004/sep04/9w.histmile.xml

IEEE USA NEWS

NEWS from IEEE-USA

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

Students Like Building Future Cities, Plan to Continue Studying Science, Technology, Engineering and Mathematics

WASHINGTON (7 September 2004) — The National Engineers Week Future City Competition, in which seventh- and eighth-grade students develop models and descriptions of how people might one day live, is viewed as an enjoyable learning experience by both students and teachers, according to a study commissioned by IEEE-USA. And more than half of the students said they planned to study science, technology, engineering or mathematics in high school and college. The survey of 190 students and teachers from the 1,100 participating schools was performed by The Response Center of Fort Washington, Pa.

Overall, 82 percent of students and all teachers gave the contest an “A” or “B” on a five-point scale. Both groups gave high marks to steps such as designing the city and building a physical model, as well as going to competitions. Students also felt that participation helped them think creatively and improved their communication skills.

“We commissioned this study to assist the Future City Competition in its development efforts,” said Joseph V. Lillie, an IEEE member who served as 2004 National Engineers Week Chair. “The research will be very useful as we move forward with improvements to the competition and expand into new areas of the country.”

Now in its 13th year, the Future City Competition (www.futurecity.org) was introduced by IEEE-USA with the EWeek committee in 1992-93. It reaches more than 30,000 students in 37 regions of the United States, and is run annually in conjunction with Engineers Week each February.

The four-part, multi-disciplinary competition asks students to create a future city by employing critical thinking, teamwork, research and problem-solving skills. Their solution is a city designed using SimCity software, a table-top scale city model using recycled materials, a 700-word essay on a specific engineering topic, and a seven-minute team verbal presentation defending their vision before a panel of judges.

The survey further revealed that more than two-thirds of seventh graders and 20 of the 22 teachers plan to participate next year, while 80 percent of the students would recommend the program to friends. Even though the participants enjoy competing in the annual contest, most only participate one of the two years they’re eligible. Though teachers enjoy the contest, most are only involved a year or two.

Although students enjoy the project, few appreciated the paperwork. Writing the essay describing their city got an “A” or “B” from little more than half the students. According to Lillie, a member of the Future City Advisory Board, “this study gives the competition’s leadership documented evidence of the Future City Competition’s value.”

IEEE-USA is an organizational unit of The Institute of Electrical and Electronics Engineers, Inc., created in 1973 to advance the public good, while promoting 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/>.

Contact: Terry Costlow
Phone: + 1 847 966 0973
E-Mail: tcostlow@core.com

2004 IEEE Elections

The 2004 IEEE Annual Election process is underway — candidates names have been announced, and statements of candidacy and websites for your information, as the constituent, is in preparation. If you would like to be a part of a candidate e-mail list that will be controlled by IEEE staff, and not the candidates themselves, then please click the following URL: <http://www.ieee.org/elections> by 13 August to be subscribed. Please include your name and IEEE member number.

Your contact information will NOT be shared with the candidates. We are taking this initiative in an effort to control what some individuals have called SPAM!

In addition to the IEEE Annual Election web page, to which individuals may link to find out about who's running for various positions, and what their candidate statements contain, there will also be a message sent in late summer by IEEE staff, on behalf of all candidates, who will be on the annual election ballot. This message will not only remind members to vote, but will also provide a short message from each of the candidates as well as the link to their personal candidate information website if one is available.

To reduce or eliminate the perception by members that electioneering is being used to SPAM the membership, allow candidate messages to come through that may contain viruses, or that candidates sending their personal e-mails to members have an unfair advantage over other candidates who might not have that capability, the IEEE Board of Directors has taken seriously the concerns voiced by its membership. In so doing, candidates have been reminded about IEEE policy relative to electioneering. In order for the candidates to reach out with information on how they plan to serve the membership, a standardized way for you to be contacted has been developed. You will be contacted by IEEE staff with information, statements, etc., regarding the annual election. If you wish to be sent such information, you will need to be subscribed to the mailing list that will receive such correspondence in the future.

As mentioned above, If you would like to be a part of a candidate e-mail list that will be controlled by IEEE staff, and not the candidates themselves, then please click the following URL: <http://www.ieee.org/elections> by 13 August to subscribe. Your contact information will NOT be shared with the candidates. URL: <http://www.ieee.org/elections>

If you have IEEE election questions send email to corp-election@ieee.org.

Sincerely,
Arthur W. Winston
2004 IEEE President

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