



THE POCKET SCOPE



The Institute of Electrical and Electronics Engineers, Inc.

Volume 56, Number 3

November 2005

SCOPE NOTES

November Houston Section News

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

When:
Thursday, December 1, 2005
6:00 - 6:30 p.m. Social
6:30 - 7:30 p.m. Dinner
7:30 - 8:30 p.m.

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.



The Chairman's Message

Scott Ballew

The Chairman's Message

Scott Ballew
Houston Section Chair

See Page 3
for the Continu-
ing Education
Schedule!

IEEE WEB
ADDRESS

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

IEEE Houston Section
P.O. Box
460443
Houston, Texas
77056-8014

Chair Message-Cont.

Houston Section Meeting

Thursday, December 1, 2005

Topic:

EMPLOYMENT LAW: Everything* you wanted to know, but were afraid to ask. . . This presentation will provide an overview of employment law – a short consciousness raising exercise — what are the basics and what steps can be taken to prevent employment litigation (and related costs) from happening. As many of the following thoughts that can be touched within one hour will be reviewed:

- Do you find it difficult to navigate employee relations issues when you have an engineering deadline to meet?
- With so many laws out there, would it be helpful to have some of the basics of employment law in hand when you deal with others at work?
- How can you head off employment litigation and the related “black holes” of costs and time loss?
- Bottom line: What’s right? What’s wrong? What should I do?

Speaker: Andrea M. Johnson, a Houston employment litigator, will speak at the December 1, 2005, meeting on this always timely topic, addressing these and other employment questions that you may have. She will powerpack an hour-long discussion and question and answer session to help you address quickly and efficiently these sometimes thorny issues and head off problems before they become expensive difficulties.

AJ, as her friends know her, is a partner with Powers & Frost, L.L.P., and head of the firm’s Employment and Commercial Litigation Section. Her diverse management-defense practice includes representing Fortune 100 and 500 companies both here in Texas and in several other states. She has tried employment cases in federal and state court and has worked on cases of first impression and cases cited by the *Texas Lawyer*, including a listing in the “Biggest Suits of Texas” (complete defense verdict in a case where \$ 52 million was demanded). AJ also represents employers in binding arbitration and on appeal. A significant part of AJ’s work involves developing best practices employment strategies for employers and assisting in company training for employees. She is a frequently invited speaker and has published several articles

Where HESS Building, 5430 Westheimer at Yorktown **Time:** 6:00 - 6:30 PM Social - 6:30 - 7:30 PM Dinner - 7:30 - 8:30 PM Presentations **Cost** Dinner \$15.00 for members who register 48 hours prior to the event, \$20.00 for members who do not register 48 hours prior to the event and for non-members; \$5.00 for students.

IEEE CONTINUING EDUCATION ON DEMAND

2005-2006 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 / HUGHES SUPPLY CO.
 425 BLUEBERRY STREET
 HOUSTON, TX 77018
patricia.rogers@hughessupply.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: patricia.rogers@hughessupply.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.

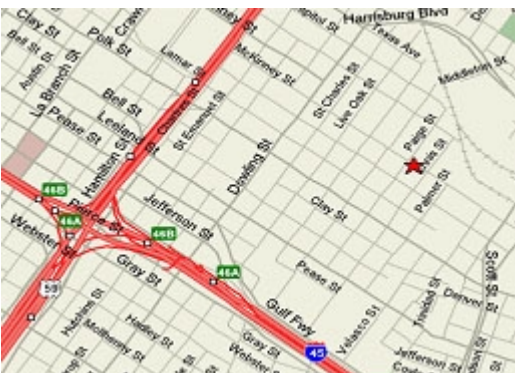
Instructors are application engineers, manufacturing specialists and expert consultants who provide a blend of diverse engineering perspectives.

The cost of each seminar is \$70.00 for IEEE members. Non-members \$140.00. The **check must be received the Friday before** the seminar start date. "Pay at the door" is discouraged due to many "no-shows". If you have a special situation contact Paul Barrett (713) 598-0790. Signing up the week of the seminar does not guarantee seminar presentation documents or meals.

The following 2005-2006 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 2005 - 2006

Summit Electric
 2929 McKinney
 Houston, TX. 77003



Seminar Title	Code	Date	Amount
Grounding Techniques, Industrial Power Sys	402	Oct. 4 / 5	\$
Electrical Safety in the Workplace	921	Oct. 18/19	\$
API Motor Standards Update	620	Nov. 1/ 2	\$
Protective Relay 5 ABB Relays	315	Nov 15/16	\$
HV Substations For Industrial Applications	125	Feb. 7/ 8	\$
MV Cable Considerations Thru 69kV	130	Feb. 21/22	\$
Protective Relaying for Large Generators	306	Mar. 7/ 8	\$
IEC Standards for Large Power Transformers	950	Mar. 21/22	\$
IEEE 1584 Arc Flash Calculations	340	Apr. 4 / 5	\$
Residual Bus Auto Transfer Schemes	140	Apr. 18/19	\$
Total Paid:			\$

Enter amount for each seminar:

IEEE member early signup: \$ 70.00
 Non-member registration: \$140.00

Fall of 2005 IEEE Seminar Schedule
Grounding Techniques—Industrial Power Sys (402)

Jack Woodham, Jedson Engineering
Tony Locker, Post Glover Resistors
 Oct. 4/5, 2005 6:00-8:50PM
 Reviews and explores the four types of grounding for industrial power systems 480 – 4160 V. [0.5 CEU]

Electrical Safety in the Workplace (921)
Danny Ligget, E.I. DuPont Co.
 Oct. 18/19, 2005 6:00-8:50PM
 A detailed focus is on electrical workplace safety coupled with comprehensive safety training. [0.5 CEU]

API Motor Standards Update (620)
David Rains, WEG & Doug Gehring, Siemens
 Nov. 1/2, 2005 6:00-8:50PM
 An overview of large motor design considerations for compliance with latest API 541 and API 546. Review and comparison of IEEE 841 and API 541. [0.5 CEU]

Protective Relay 5 – ABB Relays (315)
Robert Wilson, ABB
 Nov. 15/16, 2005 6:00-8:50PM
 Review of ABB protective relay design fundamentals and special application considerations. [0.5 CEU]

Spring of 2006 IEEE Seminar Schedule
HV Substations for Industrial Applications (125)
Allen Xi & Charles Pulay, Burns & McDonnell Engrs
 Feb. 7/8, 2006 6:00-8:50PM
 An overview of industrial substation design considerations, layout, protection, grounding and controls. Testing and commissioning considerations. [0.5 CEU]



IEEE
Houston
Section

2005-2006

Continuing
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MV Cable Considerations thru 69 KV (130)
H.R. Stewart HRS Consulting
 Feb. 21/22, 2006 6:00-8:50PM
 Review of design application considerations related to MV power cable projects. [0.5 CEU]

Protective Relaying for Large Generators (306)
Wayne Hartman, GE Multilin
 March 7/8, 2006 6:00-8:50PM
 Reviews large generator design characteristics, application problems and reliable protective schemes. [0.5 CEU]

IEC Standards for Large Power Transformers (950)
Tom Malone & Martyn Hildreth. Areva T&D
 March 21/22, 2006 6:00-8:50PM
 Detailed review of current IEC standards related to large power transformers. [0.5 CEU]

IEEE 1584 Arc Flash Calculations (340)
Jim Bowen, Powell Electrical Manufacturing Co. & Daleep Mohla, DCM Consulting
 April. 4/5, 2005 6:00-8:50PM
 A two part study focuses on NFPA 70E flash hazard analysis requirements and IEEE 1584 formulas to satisfy 70E requirements. [0.5 CEU]

Residual Bus Auto Transfer Schemes (140)
Roy Cosse, Powell Electrical Systems Inc. & Robert Spiewak, PolAmex Engineering
 April 18/19, 2005 6:00-8:50PM
A focused review of the residual bus auto transfer schemes. examples, why they work and do not work. Traditional and modern applications. [0.5 CEU]

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.

IEEE Houston Section Officer Nominations

EXECUTIVE OFFICERS NOMINATIONS FOR 2006

The following Houston Section members have been nominated by the Nominations Committee to serve as Executive Officers during the year 2006

Past Chairman - Scott Ballew

Chairman - Donald Dunn

Vice-Chairman - Polo Gutierrez

Secretary - Justin McCaskill

Director - Charles Benard

Treasurer - Gil Dolor

Be sure to attend the December 1, 2005, IEEE Houston Section Meeting to participate in the election of the Officers. Nominations for these positions can also be made from the floor that evening.

The members of the Nominations Committee were: Gil Dolor, Justo Benitez and Dwayne Lowry.

Texas A&M Faculty Openings

Faculty Openings - Non Tenured

Texas A&M University: Visiting Faculty / Senior Lecturer position in the Department of Electrical & Computer Engineering: The Electrical & Computer Engineering Department at Texas A&M University, College Station Campus, is seeking a full-time faculty member in a Visiting Faculty (non-tenured) / Senior Lecturer (non-tenured) position.

The primary responsibility will be teaching and coordination of undergraduate senior design projects and serving as the coordinator or department representative on interdisciplinary senior design projects. Additional responsibilities from time to time include seeking corporate project sponsorship, speakers for weekly lectures and teaching ECE freshman and junior courses: Introduction to Electrical & Computer Engineering; Electric circuit theory; Introduction to digital design, etc.

Requirements are a Ph.D. in ECE and a broad knowledge of the electrical and computer engineering discipline, with experience in electronic product development and management skills. Industry experience is highly valued.

Applicants should send a complete resume, including names and addresses of three references to:

Dr. Costas N. Georghiades
Department Head
Department of Electrical and Computer Engineering
Texas A&M University
TAMU 3128, College Station, TX, 77843-3128.

The deadline for applications is December 1, 2005, but the position will remain open until filled. Texas A&M University is an equal opportunity/affirmative action employer and actively seeks the candidacy of women and minorities.

More information can be found at the following link.

<http://www.ee.tamu.edu/Department/DepFacultyOpeningsNonTenured.htm>

IEEE USA Eye On Washington

The latest issue of EOW is now available. For complete text and links of EOW, please visit: <http://ieeusa.org/policy/eyeonwashington/2005/05eow20.asp>

In Summary:

****House Science Committee will hold a hearing on “Science, Technology, and Global Economic Competitiveness**

****Some Committees Using the Budget Reconciliation Process to Find Revenue Via Visas – Old and New - On 29**

September, The House Judiciary Committee approved HR 3648, a bill to require employers to pay a \$ 1,500 fee for intracompany transfers of foreign workers into the US. HR 3648’s sponsor, Judiciary Committee Chairman James Sensenbrenner (R-Wis.), said the fee would help the committee meet its goal of \$300 million in savings over the next five years, an action required as part of the budget reconciliation process during which each committee is directed to find revenue or savings to help balance the budget. With time running out on this year’s legislative session, the Committees seem to be grasping at straws to find the funds that will help Congress pay for new federal spending without greatly enlarging the federal deficit. The House effort would raise fees on existing fees. In contrast, a plan introduced in the Senate Judiciary Committee, would raise the number of H-1B visas issued by 60,000 annually, beginning in 2006 and continuing in future years until a backlog of nearly 300,000 visas approved but unused since 1991 has been exhausted. This complicated provision would allow Congress to nearly double the number of visas issued without actually changing the legal cap. Along with the 60,000 new H-1B visas, the federal government collects an extra \$500 fee to go with them. IEEE-USA has issued an action alert on the Senate plan. Find out more information by visiting the Legislative Action Center at <http://ieeusa.org/policy/default.asp>.

Concerned engineers need to express their opposition NOW before the provision is incorporated into the much larger Senate budget bill.

****Industry to Congress, “Leave IP Alone For Now”**

****DOD FY06 Approps Bill Passes Senate With Additional Funding for Civilian Scientist Education Programs**

****House Science Committee Chairman Says New Energy Bill Will Help No One But Industry**

****NAGB Proposal Would Delete Technological Design From NAEP From K-12 Education**

****NSF Wants to See Teraflops and Petaflops By 2010**

****President Elevates Role of External IT Advice in the White House - The President signed an Executive Order designating the President’s Council of Advisors on Science and Technology**

IEEE USA Eye On Washington

(PCAST) as the advisory panel that will be responsible for overseeing the Networking and Information Technology Research and Development (NITRD) Program. The President also ordered that PCAST's membership be increased, so more members with relevant experience can be appointed to buttress PCAST's Information Technology (IT) assessment functions. The President is expected to make these new appointments in the near future.

****Internet Governance: The US v. The World**

****US Could Lose "Privileged Position:" National Academies Panel Warns of an Erosion of the U.S. Competitive Edge in Science - A panel of experts, convened by the National Academies, has called for an urgent and wide-ranging effort to strengthen scientific competitiveness. The report, Rising Above The Gathering Storm: Energizing and Employing America for a Brighter Economic Future will be available online this fall at**

http://books.nap.edu/catalog/11463.html?onpi_newsdoc10122005.

****Study Puts Value Of U.S. Ideas At \$5 Trillion A Year**

****New CSIS Report on Access of Foreign Students and Scientists to the US**

****Oregon Governor Signs Bill to Create Innovation Council**

****Michigan Senate Passes Telecommunications Deregulation Bill**

****And On the Other Side of the Pond, They're Also Worried About Competitiveness - With Brazil, China and India emerging as innovation hubs, the European Union announced a series of research and development measures to maintain global competitiveness.**

What's New @ IEEE-USA's Eye on Washington highlights important federal legislative and regulatory developments that affect U.S. engineers and their careers. In addition to this biweekly newsletter, subscribers receive legislative bulletins and action alerts on IEEE-USA priority issues, including: retirement security, employment benefits, research & development funding, computers and information policy, immigration reform, intellectual property protection and privacy of health/medical information.

EDITOR: Erica Wissolik, IEEE-USA, 1828 L Street, N.W., Suite 1202,
Washington, DC 20036-5104

You can change your IEEE-USA Eye on Washington subscription status by using the forms at <http://whatsnew.ieee.org/> or at <http://www.ieeeusa.org/emailupdates/>.

IEEE CareerAlert

IEEE CAREER ALERT for 13 Oct 2005

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

In This Issue:

1. After the Endgame
2. Good Answers for Bad Questions
3. Working Together
4. Germany Gets its Universities in Gear

1. After the Endgame

You didn't get that coveted job. But that doesn't mean you're totally out of the game. A Monster.com article suggests that you send a post-rejection follow-up letter. A new opening for which the hiring manager feels you're suited may have opened up — or the candidate they originally chose may not be working out. Even if neither is the case, the letter will remind the manager of your interest and may earn you a valuable contact. Read on at: <http://resume.monster.com/articles/rejection_followup_letter/>

2. Good Answers for Bad Questions

The goal of the job interview is an exchange of information that tells you and the interviewer whether or not you and the company are a good match. A Business Week article warns that if the interviewer's questions don't facilitate such an exchange, beware (for example, being asked "If you were a can of soup, what type of soup would you be?" is not a good sign!). For more on useless interview questions, how to handle them gracefully, and what you should expect to get out of an interview, read on at: <http://www.businessweek.com/careers/content/sep2005/ca20050921_1099_ca009.htm>

3. Working Together

Good working relationships don't just make the day go by faster. Experts note that developing a strong enough relationship with colleagues to understand their points of view can prevent misunderstandings that lower morale and, eventually, productivity. A UK Independent article talks about ways to build relationships quickly and to manage situations where you have to work with someone you dislike. Read on at: <http://education.independent.co.uk/careers_advice/article317569.ece>

IEEE Career Alert-Cont.

4. Germany Gets its Universities in Gear

The German government is looking to pump up the deflated stature of the country's universities. Acknowledging that the schools have been underfunded and unfocused, and that there has been a lack of research positions for new graduates in science and engineering, the government has instituted an "Excellence Initiative" that will attach financial incentives to research performance. Universities will be able to win up to 21 million euros a year apiece to help with the creation of new graduate schools and so-called centers of excellence that will provide jobs for as many as 10 000 young scientists. Read on at: <http://sciencecareers.sciencemag.org/feature/advice/foc_100705.shl>

IMPORTANT ANNOUNCEMENT

On 20 September 2005, IEEE Spectrum hosted an online Career Accelerator Forum. An archived version is still available. Get insight and advice on getting an advanced degree, staying ahead in your field, landing your dream job and even changing your career. Plus, this interactive event makes it possible for you to question our expert panel — all from the convenience of your desktop!

For more information, visit:

<<http://www.spectrum.ieee.org>> and click on the webcasts button.

Manage Your Subscription to IEEE Career Alert 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 USA Today's Engineer

From Washington, D.C.:

IEEE-USA Today's Engineer E-mail Update for 7 October 2005

Your Monthly U.S. IEEE Member Update on "Building Careers & Shaping Public Policy"

<http://www.ieeeusa.org>

IN THIS ISSUE:

1. October 2005 IEEE-USA Today's Engineer Online
2. "Leadership for Results" Courses Launched
3. U.S. IEEE Members Eligible for Discounted Continuing Education, Certificate, Grad Degree Courses
4. IEEE-USA Fund to Support Second Mass Media Fellow in 2006; Applications Now Available Online
5. Nominate a Colleague for EWeek 2006 "New Faces of Engineering"
6. U.S. IEEE Student Members Encouraged to Apply for 2006 WISE Program

1. October 2005 IEEE-USA Today's Engineer Online

The latest edition of IEEE-USA Today's Engineer Online includes features on "Engineers: Mere Mercenaries?"; "Engineers as Commodities"; "IPv6 Transition and the 'New Internet'"; "U.S. IEEE Membership Split on Privatization of Social Security"; "Networking: The Sine Qua Non of Job Search Success"; and more. Also catch an "Engineering Hall of Fame" column on Sir Charles Wheatstone and the latest "WorldBytes" column on "18 Seconds." Read IEEE-USA Today's Engineer Online at <http://www.todaysengineer.org>

2. "Leadership for Results" Courses Launched

IEEE-USA, in conjunction with AchieveGlobal, now offers 29 online courses designed to equip members with the "soft skills" needed to succeed in today's workplace. Course modules include: "Giving and Receiving Constructive Feedback"; "Managing Your Priorities"; "Proactive Listening"; and others, all of which are based on AchieveGlobal's experience in the professional training industry. IEEE members can access these courses for less than retail price. For more information and course registration, use your IEEE Web Account to log into the IEEE-USA online catalog [https://salaryapp.ieeeusa.org/rt/salary_database/shop], click on the "Shop" tab, and then click on the "Career-Development Courses" heading.

3. U.S. IEEE Members Eligible for Discounted Continuing Education, Certificate, Grad Degree Courses

Through the IEEE Education Partners Program, U.S. IEEE members can now receive up to a 10 percent discount on online degree programs, certifications and courses — on both technical and business subjects currently offered by more than a dozen accredited universities and private continuing education providers. Most courses are available online; however, some are instructor-led in person. Providers include such leading institutions as Drexel University, New Jersey Institute of Technology and Stevens Institute of Technology; and such organizations as Competence Software, Mind Leaders and Semi Zone. To enter each partner's special IEEE Web site and to browse the more than 2,000 courses offered, enter your IEEE Web account and password at <http://www.ieee.org/education/epp>.

4. Application for 2006 IEEE-USA/AAAS Mass Media Fellowships Now Available Online

IEEE-USA is looking for two U.S. IEEE student members to help strengthen the connections between engineers and journalists by working for 10 weeks during the summer as reporters, researchers and production assistants in newsrooms across the country. The goal is to increase public understanding and awareness of science and engineering.

To apply, you must be at least a junior in college majoring in a technical field, mathematics or social

IEEE USA Today's Engineer-Cont

sciences. A weekly stipend of \$450 is provided. Applications must be received by 15 January 2006. Visit <http://www.aaas.org/programs/education/MassMedia/> for more information, or contact Stacey Pasco at spasco@aaas.org, or +1 202 326 6441.

For more information on IEEE-USA's Mass Media Fellowships, go to <http://www.ieeeusa.org/communications/massmedia.asp>

To access the online application form, visit <http://www.aaas.org/programs/education/MassMedia/apply.shtml>.

5. Nominate a Colleague for the EWeek 2006 "New Faces of Engineering"

Do you work with any outstanding, young engineers? IEEE-USA is seeking nominations to be considered for the EWeek 2006 "New Faces of Engineering," a program that recognizes the profession's rising stars. This program is a great way to acknowledge the contributions of your younger colleagues and boost interest in the profession among future generations of engineers.

For more information on the "New Faces of Engineering" program, go to <http://www.eweek.org>
To nominate an IEEE member, please contact Helen Hall at h.hall@ieee.org.

6. U.S. IEEE Student Members Encouraged to Apply for 2006 WISE Program

Next summer, the IEEE will sponsor three outstanding student members to participate in the 2006 Washington Internships for Students of Engineering (WISE) Program. The select candidates will spend nine weeks in Washington, D.C., learning how engineers contribute to the legislative decision-making process. The application deadline is 16 December 2005.

For more information, visit <http://www.wise-intern.org>, or contact Sharon Richardson at s.richardson@ieee.org.

For the latest news stories written about IEEE-USA, visit: <http://www.ieeeusa.org/communications/inthenews.asp>

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Members who need to update their IEEE e-mail alias, should go to: <http://elecomm.ieee.org>

If you need assistance with your membership, you may contact IEEE Member Services by e-mail at member-services@ieee.org; or by telephone at +1 800 678 4333; or fax +1 732 562 5445.

If you have questions or comments about IEEE-USA Today's Engineer E-mail Update, please send a message to: <mailto:todaysengineer@ieee.org>

IEEE-USA, 1828 L Street, NW, Suite 1202, Washington, D.C. 20036-5104

PHONE: +1 202 785 0017 FAX: +1 202 785 0835 WEB: <http://www.ieeeusa.org>

IEEE Career Alert

IEEE CAREER ALERT for 26 Oct 2005

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

IN THIS ISSUE:

1. Singapore aims to be global bioscience hub
2. You've found a mentor. Now what?
3. Independent contractors could cost you more than you think
4. Going back to school as a mature student

1. Singapore aims to be global bioscience hub

In recent years, in a bid to keep an edge over the rest of Asia, Singapore has invested heavily in creating a "Biopolis," a R&D park intended to attract the best and brightest. Apart from generous direct financial support, Biopolis residents have access to shared services such as MRI imaging and DNA sequencing. Now it seems Singapore's investment is paying off as foreign companies and universities open up facilities in Biopolis to research subjects such as stem cells, cancer and drug discovery. New Scientist has more at:

<<http://www.newscientistjobs.com/insider/article.action?article.id=insider153&focusId=singapore>>

2. You've found a mentor. Now what?

Mentors can boost careers and sooth anxieties, and for many people finding one is the challenge. But once you've found your mentor, how do you get the best out of that relationship? Computerworld.com offers tips on making of the most of your mentor, including making sure you meet regularly both inside and outside the office and being willing to discuss personal, as well as professional topics.

Read on at:

<<http://www.computerworld.com/careertopics/careers/story/0,10801,105701,00.html?SKC=careers-105701>>

3. Independent contractors could cost you more than you think

A lot of companies have attempted to reduce costs by using independent contractors for jobs that would have formerly been done by employees. But doing so can put you at risk of running foul of legal trouble from the federal and state governments, as well as creditors and the contractors themselves.

Workforce.com looks at the truth behind the myths of cheap contract labor:

<<http://www.workforce.com/archive/feature/23/33/59/233362.php>>

IEEE Career Alert-Cont.

4. Going back to school as a mature student

So you've been around the block a few times, but you've decided that you want to go college as a mature student. However, coping with the culture clash between the business world and hectic campus life can come as a shock.

About.com offers advice for the would-be mature student, including not expecting a boss-employee relationship with professors and building a support system outside of school, which can be as simple as maintaining an apartment that looks like an adult lives in it. Read on at:

<<http://gradschool.about.com/cs/survival/a/oldertips.htm>>

IMPORTANT ANNOUNCEMENT

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<<http://www.spectrum.ieee.org>> and click on the webcasts button.

To sign up, go to: <<http://www.ieee.unisfair.com>>

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

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IEEE Institute 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>>

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7. Simulation Conference Deals With Many Realities
8. New Proceedings Addresses Circuits and Systems

Subscription info and your member number are at the end of the email.

-advertisement-

MIT Advanced Study Program

The Massachusetts Institute of Technology Advanced Study Program (ASP) is now accepting applications for the Spring 2006 term. ASP provides full and part-time certificate programs to working professionals at any stage of their careers. The program includes a flexible curriculum of MIT courses designed around the goals of participants and their sponsors. Visit our website to fill out an application or request an information package. <http://boldfish.ieee.org:80/u/1054/00086579>

1. Life Fellow Brought the IEEE to Peru

As a bright, up-and-coming engineer back in 1967, IEEE Life Fellow Jose F. Valdez C. had never heard of the institute. In the 38 years since then, he founded the IEEE Peru Section, served as its president twice, and worked to build up membership from a mere 86 members at the section's birth to 649 members today. Find out more at <http://boldfish.ieee.org:80/u/1055/00086579>

2. Boy Scouts Earn EE Merit Badges

Thanks to a group of IEEE volunteers, several hundred Boy Scouts learned the basics of electricity and electronics while earning electronics merit badges at the 2005 National Scout Jamboree in Virginia. Scouts learned about electrical safety, simple circuits, and — the most popular topic — microprocessors. Read more at <http://boldfish.ieee.org:80/u/1056/00086579>

3. Charitable Funds Need Your Support

For more than 60 years, Addison D. Cole has never let his membership lapse. He says he values the work of the IEEE, especially in the development of industry standards and the advancement of the engineering profession. You can support the good work of the IEEE, as Cole does, by making a donation to one of eight charitable funds listed on your renewal notice. Read more at <http://boldfish.ieee.org:80/u/1057/00086579>

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IEEE Institute News - Cont.

4. Four Programs Funded by IEEE Foundation

The IEEE Foundation's Board of Directors awarded US \$73 254 to projects supporting precollege teachers, engineering history, public awareness of technology, and student membership. Find out more at <http://boldfish.ieee.org:80/u/1059/00086579>

5. IEEE Cosponsors Standards Paper Contest

The International Electrotechnical Commission (IEC), in partnership with the IEEE, other societies, and The Economist magazine, have launched the IEC Centenary Challenge, a competition for papers on the economic and social impact of international standards on business. The top prize is US \$15 000. Anyone affiliated with an academic institution, including faculty members, heads of faculty, and teaching or research staff, may enter a paper. Registration to enter the contest opens today and runs until 3 March 2006. For registration forms, rules, and further information visit <http://boldfish.ieee.org:80/u/1060/00086579>

6. Nomination Deadline Nears for EE Times ACE Awards

EE Times is looking for a few great people, companies, and products for its Second Annual ACE Awards. The awards, cosponsored by IEEE Spectrum, honor the people, the companies, and the products that demonstrate leadership and make positive contributions to society. The deadline for entries is 31 October 2005. To complete a nomination or for more details go to <http://boldfish.ieee.org:80/u/1061/00086579>

7. Simulation Conference Deals With Many Realities

An accurate simulation is a rehearsal for reality, all conceivable realities, and maybe a few you might not have conceived without a simulator's help. The Winter Simulation Conference, to be held from 4 to 7 December in Orlando, Fla., aims to help technologists predict the operation, and inherent pitfalls, of all manner of systems. Read more at <http://boldfish.ieee.org:80/u/1063/00086579>

8. New Proceedings Addresses Circuits and Systems

The Proceedings of the 2005 IEEE International Symposium on Circuits and Systems is now available. Held in Kobe, Japan, in May, the symposium focused on circuits and systems that have improved the quality of life and consumer technology, including mobile communications, multimedia systems, sensor interfaces, and biosystems. To purchase the complete conference proceedings from ShopIEEE, visit <http://boldfish.ieee.org:80/u/1064/00086579>

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Synopsys Releases New Sentaurus TCAD Tool Suite! Sentaurus sets a new standard for TCAD technology by embedding a comprehensive suite of core TCAD products for multi-dimensional process, device and system simulation into a powerful user interface. Please join the Sentaurus Web Seminar on November 8, 2005. For more information, visit: <http://boldfish.ieee.org:80/u/1065/00086579>

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IEEE Legislative Alert!

NEWS from IEEE-USA

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

IEEE-USA Urges Senate Committee Not to Increase H-1B Visas

WASHINGTON (19 October 2005) — The Senate Judiciary Committee should not vote to release 300,000 additional H-1B visas, IEEE-USA President Gerard A. Alphonse wrote in a letter to the committee today.

“We urge you not to make a bad situation worse by approving another increase in H-1B admissions ceilings,” Alphonse wrote.

The Senate committee is expected Thursday to discuss a proposal that would allow as many as 60,000 additional H-1B visas to be issued in any of five fiscal years in which the current cap of 65,000 is reached. By imposing an extra \$500 fee on the new visa, the proposal is expected to raise up to \$30 million a year. The proceeds would help meet budget reconciliation targets, not improve the H-1B program. IEEE-USA supports a House Judiciary Committee proposal to raise revenue by increasing fees on L-1 visa applications.

IEEE-USA has long held that permanent immigration is a better solution to assist U.S. companies in their search for talented foreign high-tech workers such as engineers and scientists. H-1B visas are temporary (three to six years).

Alphonse also cited a recent Department of Homeland Security (DHS) Inspector General’s report confirming that DHS does not have a process in place to stop issuing H-1B visas once the congressionally mandated ceiling of 65,000 has been reached. Sen. Charles Grassley (R-Iowa) and Rep. John Hostettler (R-Ind.) learned that DHS’ Citizenship and Immigration Services (CIS) might have violated federal law by approving more than 72,000 H-1B visa petitions for FY 2005.

“It boggles my mind that with our computer technology, CIS can’t count to 65,000,” Grassley said in an 18 October news release. “Bureaucrats are playing a guessing game, and show no shame. Congress put these restrictions in place to help American workers, and we expect them to be followed.” A copy of the Inspector General’s report is available at <http://grassley.senate.gov/releases/2005/10182005.pdf>.

IEEE-USA is an organizational unit of the IEEE. It was created in 1973 to advance the public good and promote the careers and public policy interests of the more than 220,000 technology professionals 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>.

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