



THE POCKET SCOPE



The Institute of Electrical and Electronics Engineers, Inc.

Volume 57, Number 5

January 2007

SCOPE NOTES

January Houston Section News

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

When:
Thursday, February 25, 2007
6:00 - 6:30 p.m. Social
6:30 - 7:30 p.m. Dinner
7:30 - 8:30 p.m.

Cost:
\$15.00 - 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

Polo Gutierrez

The Chairman's Message

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.

Polo Gutierrez
Houston Section Chair

Houston Section Meeting

Thursday, February 25, 2007

Topic: To be announced

Speaker: To be announced

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

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 \$175.00. **The check must be received the Friday before the seminar start date.** "Pay at the door" is discouraged due to numerous "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. **Any individual with special dietary needs MUST submit their registration by the Friday before the seminar start date.**

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 2006 - 2007

Jacobs Engineering
 5995 Rogerdale Road
 Houston, TX. 77072



2006-2007 REGISTRATION FORM

Seminar Title	Code	Date	Amount
IEEE1584 Arc Flash Calculations	340	Oct. 3 / 4	\$
Design Considerations for Industrial UPS and DC Power Systems	807	Oct. 17/18	\$
Operational Voltage Assurance - LTC Tap Changers / Motor Bus Transfer	220	Oct. 31 Nov 1	\$
Insulation Coordination in Industrial Applications	315	Nov 14/15	\$
Substation Grounding	225	Feb. 6/ 7	\$
PMCS Considerations for Industrial Applications	730	Feb. 20/21	\$
MV & HV Apparatus Doble Testing	940	Mar. 6/ 7	\$
IEC Circuit Breakers	650	Mar. 20/21	\$
Motor Starting: Equivalent Circuits, Starter Types, Load Types, and Dynamics	620	Apr. 4 / 5	\$
IEEE 1584 Arc Flash Equipment Design ANSI & IEC	341	Apr. 17/18	\$
Total Paid:			\$

Enter amount for each seminar:

IEEE member early signup: \$ 70.00
 Non-member registration: \$175.00

Fall of 2006 IEEE Seminar Schedule

IEEE 1584 Arc Flash Calculations

Jim Babcock, SKM Systems Analysis, Inc.

Roy Cossé, Powell Electrical systems, Inc.

Oct. 3/5, 2006 6:00-8:50PM

Reviews NFPA 70E, arc flash fundamentals and related theories. Effective use of software tools, analysis & implementation of derived data. **[0.5 CEU]**

Design Considerations for Industrial UPS and DC Power Systems

Matthias Dreier, Gutor Electronic Ltd - Switzerland

Oct. 17/18, 2006 6:00-8:50PM

A detailed technical presentation on design/application considerations for industrial duty UPS systems and DC power systems. **[0.5 CEU]**

Operational Voltage Assurance - LTC Controls and Motor Bus Transfer Technology

Tom Beckwith, Beckwith Electric Co. Inc.

Oct 31-Nov. 1, 2006 6:00-8:50PM

An in-depth technical presentation on LTC controls and paralleling of power transformers; detailed presentation on technology of motor bus transfer schemes **[0.5 CEU]**

Insulation Coordination in Industrial Applications

Dr. Kurt Ederhoff, V I Engineering

Nov. 14/15, 2006 6:00-8:50PM

A technical study of basic fundamentals, theories and correlation strategies for protecting equipment from overvoltage damage and flashovers. **[0.5 CEU]**

Spring of 2007 IEEE Seminar Schedule

Substation Grounding

Matt McBurnett, V I Engineering

Feb. 6/7, 2007 6:00-8:50PM

Design principles, considerations and strategies for effective substation grounding. **[0.5 CEU]**



IEEE

**IEEE
Houston
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2006-2007

**Continuing
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PMCS Considerations for Industrial Applications

Randy Bouwense, GE Multilin - Automation

Feb. 20/21, 2007 6:00-8:50PM

Technical presentation of basic, effective PMCS design considerations for industrial applications. **[0.5 CEU]**

MV and HV Apparatus Doble Testing

Keith Hill, Doble Engineering Co

March 6/7, 2007 6:00-8:50PM

A review of Doble testing techniques and procedures. Testing topics include power factor testing and Sweep Frequency Response Analysis (SFRA). **[0.5 CEU]**

IEC Circuit Breakers

Roy Cossé, Powell Electrical systems, Inc.

March 20/21, 2007 6:00-8:50PM

Reviews breaker basics, selection, system X/R and zero axis crossing. **[0.5 CEU]**

Motor Starting: Equivalent Circuits, Starter Types, Load Types, and Dynamics

Robert Spiewak, PolAmex Eng. & Design SVC, Inc.

April. 4/5, 2007 6:00-8:50PM

Review of induction and synchronous motor design, equivalent circuits for start and operation; starting, operating and breaking operating characteristics, load types, effective protection strategies. Review starting techniques, calculations, and comparison. **[0.5 CEU]**

IEEE 1584 Arc Flash Equipment Design Considerations. ANSI & IEC Designs

Jim Bowen, Powell Electrical Manufacturing Co.

Tom Malone, Areva T&D

April 17/18, 2007 6:00-8:50PM

A technical review of IEEE 1584 compliant equipment designs from two perspectives, IEC & ANSI **[0.5 CEU]**

IEEE Ocean Engineering Society Meeting

DATE: **Monday** February 12, 2007

11:30 am Registration

12:00 pm Presentation

1:00 pm Meeting Conclude

LOCATION: Baker Hughes Auditorium 2001 Rankin Rd Houston, TX 77073

Title: Innovative Integrated Modeling Technology & Field Development Optimization Technology

Presenter: **Michael Litvak, Reservoir Engineering Advisor, BP, EPTG, Reservoir Management,**

Abstract Innovative integrated reservoir modeling technology based on latest achievements in seismic processing, rock physics, integrated reservoir/facility modeling, and production optimization is presented. The developed methodology differs from existing approaches in four distinct ways:

It provides a step-by-step procedure for building reservoir models based on all available seismic, well log/core, and production data. Latest achievements in geophysics are applied for the construction of sand/shale 3-D volumes based on seismic spectral decomposition. Object based geostatistical modeling is used for the construction of the 3-D facies models constrained by well data and seismically derived sand/shale 3-D volume. Correlations from rock physics are utilized to directly derive rock properties from seismic attributes.

It integrates models of multiphase fluid flow in reservoir, well tubing strings, pipeline system, and separation facilities into one system. It allows answering on the crucial question: *What happens to the production profile if you modify facilities?*

It utilizes 4D seismic technology for reservoir model validation and for making business decisions. Flow barriers and fluid movements derived from 4-D seismic are applied.

It incorporates field production optimization technology for optimizing well production rates and surface pipeline network structure in giant oil fields.

In addition, this presentation describes the development and application of a new field development optimization technology to optimize the locations of new and sidetracked wells in the field, the drilling schedule, water and gas injection strategies, and production/injection rates. The field development plan is optimized using BP's Top-Down Reservoir Modeling (TDRM™) methodology. An economic indicator (e.g. net present value, incremental rate of return, capital efficiency, discounted payback, etc.) or oil/gas recovery is maximized subject to field development constraints. Only drilling targets in geologically defined areas are considered. Sidetrack wells are additionally limited by distance from their parent well. Drilling rig constraints (rig availability, drilling time, drilling costs, etc) are incorporated. Economic constraints on project costs are also taken into account.

About the Speaker

Dr. Litvak is a reservoir engineering advisor in BP. He holds BS, MS degrees in petroleum engineering and PhD degree in applied mathematics. He has worked in the petroleum industry for 34 years. He has also offered courses on applied mathematics at Case Western Reserve University.

Dr. Litvak has developed innovative technology for integrated reservoir/facility modeling and production optimization in the commercial reservoir simulator. He has very successfully applied this technology in many reservoir studies. He has published more than 50 papers which established him as a leading authority in integrated reservoir simulation.

COST: Free (Soft Drink and Cookies will be provided)

Lunch is available at Baker Hughes Cafeteria

RSERVATION : IS REQUIRED

Reservation E-mail: #Gamal.Hassan@BakerHughes.com

It is enclosed the presentation information in pdf format,
I appreciate your cooperation.

Best Regards,
Gamal Hassan

60th Annual Conference for Protective Relays

60th ANNUAL CONFERENCE FOR PROTECTIVE RELAY ENGINEERS

Texas A&M University, College Station, TX
March 27-29, 2007

Event Chair: Dr. B. Don Russell

The Planning Committee of the 60th Annual Conference for Protective Relay Engineers invites you to attend the conference at Texas A&M University on March 27-29, 2007. The Protective Relay Conference provides a forum for engineers to discuss protection technology and related subjects. Both tutorial presentations on fundamental concepts and papers on new technology are included. The program will include the following:

- New protection equipment descriptions
- Relay application ideas and new concepts
- Case studies and “horror stories” - when the relays worked and when they didn’t

Registration Information:

Pre-Registration: \$280 (begins Monday, January 8, 2007)

After Monday, February 26, 2007: \$320

Special Pre-Conference Offerings are available Monday, March 26, 2007 and include the following:

- Manufacturers’ presentations and training seminars
- Tutorial by industry experts
- Ethics seminar for professional development

This conference offers **Continuing Education Credits** and can be used to satisfy annual professional engineer educational requirements.

Manufacturers: For hospitality suites, please contact Lydia Godfrey at the College Station Hilton and Conference Center at (979) 694-4903.

Host Hotel:

Hilton Hotel and Conference Center College Station (979) 693-7500

For accommodations, please call the hotel directly and reference “Protective Relay”

For ongoing updates and registration information, visit:

<http://engineering.tamu.edu/prorelay>

IEEE USA News on H-1B's

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

IEEE-USA Commends Sen. Collins for Seeking Answers on Flawed H-1B Program WASHINGTON (12 December 2006) — IEEE-USA commends Sen. Susan Collins (R-Maine), outgoing chairman of the Senate Committee on Homeland Security and Governmental Affairs, for her recent letter questioning the effectiveness of workplace safeguards in the H-1B temporary guest worker program.

“The H-1B visa program was created to address the scarcity of qualified professionals and technical workers in the United States, but with safeguards to mitigate the potential harms to American workers and to protect foreign workers from exploitation,” Collins wrote to U.S. Secretary of Labor Elaine Chao and U.S. Citizenship and Immigration Services Director Emilio Gonzalez on 4 December. “The effectiveness of these safeguards, however, is in question.”

“We applaud Sen. Collins for highlighting the abuse and misuse of H-1B visas, particularly in smaller states like Maine, and for seeking answers from leaders who oversee the program,” IEEE-USA President Ralph W. Wyndrum Jr. said. “We’re pleased that someone of her stature realizes that flaws in the H-1B program harm U.S. and H-1B workers, as well as the U.S. economy.”

Wyndrum added, “While many of the H-1B problems must be fixed by Congress, the Labor Department has simply not done enough to address these concerns. We hope Sen. Collins’ letter will spur the department to improve the integrity of a flawed and broken program. It has much more discretion than it has exercised to investigate obvious program misuse and abuse.”

Collins’ letter cited an in-depth investigative series by the Portland (Maine) Press Herald into the H-1B program’s “problems and loopholes.” One of the abuses the newspaper found was “some companies appear to file through Maine to receive its lower prevailing wage, and then ship the foreign worker off to a higher-wage areas, like New Jersey and Silicon Valley.” The series is available at <http://pressherald.maintoday.com/news/immigration/>.

IEEE-USA highlighted prevailing wage abuses with a Sept. 2006 news release, “Reports, Studies Shatter Myth that H-1B Visa Holders are Paid Same Wages as U.S. Citizens.” See <http://www.ieeeusa.org/communications/releases/2006/090606.asp>.

In an Aug. 2006 release, “Government Reports Show Significant H-1B Wage Violations, Enforcement Mechanism Broken,” IEEE-USA demonstrated how the Labor Department’s limited investigative authority helps enable companies to pay H-1B holders below-market wages. See <http://www.ieeeusa.org/communications/releases/2006/082306pr.asp>.

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

See Collins’ letter to Secretary Chao at <http://www.ieeeusa.org/policy/issues/H1bvisa/CollinsH1B.pdf>.

IEEE-USA advances the public good and promotes the careers and public policy interests of more than 220,000 engineers, scientists and allied professionals who are U.S. members of the IEEE. IEEE-USA is part of the IEEE, the world’s largest technical professional society with 360,000 members in 150 countries. See <http://www.ieeeusa.org>.

Contact: Chris McManes
IEEE-USA Senior Public Relations Coordinator
Phone: + 1 202 530-8356
E-Mail: c.mcmanes@ieee.org

IEEE USA Today's Engineer

Here's your monthly report from IEEE-USA on building careers and shaping public policy, from the editors of IEEE-USA Today's Engineer. The current version of Today's Engineer Online can always be found at:

<http://bmsmail3.ieee.org:80/u/4850/51381>

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- 9) Enhanced IEEE-USA Employment Navigator Now Free
- 10) Engineers Needed: Online Survey on Voluntary Job Termination

1) TE Online: IEEE Association Medical Plan Caught in U.S. Dilemma (Part II)

On 7 November, CIGNA mailed certified letters to all the participants in the IEEE's member group comprehensive health care insurance plan. The bad news: Effective 1 January 2007, benefits will be cut; rates will rise again; and the plan is now closed to new participants. The good news: The IEEE is dedicating extraordinary effort to help find new health-insurance options for members and their families. <http://bmsmail3.ieee.org:80/u/4851/51381>

2) Students Encouraged to Help Improve Public's Understanding of Engineering

IEEE-USA is seeking U.S. IEEE student members to work as reporters, researchers and production assistants in newsrooms across the country during a 10-week mass media fellowship in the summer of 2007. The mass-media program helps strengthen connections between engineers and journalists, and increases public understanding and awareness of science, engineering and technology. To apply, individuals must be at least a senior in college majoring in mathematics or the natural, physical, health, engineering, computer or social sciences. Applications are due by 15 January 2007. To apply, see <http://www.aaas.org/programs/education/MassMedia/> +Mass_Media-AAAS"), or contact Stacey Pasco at spasco@aaas.org. For more information on IEEE-USA's Mass Media Fellows, visit: <http://bmsmail3.ieee.org:80/u/4852/51381> or contact IEEE-USA's Pender McCarter at p.mccarter@ieee.org

3) EWeek 2007 Just Around the Corner

IEEE-USA will again play a key role in activities surrounding Engineers Week 2007, 18-24 Feb. 2007. Festivities get underway in Washington, D.C., with Discover Engineering Family Day at the National Building Museum on 17 Feb.. And IEEE-USA is sponsoring the Best Communications System Award and the essay question for the 15th anniversary of the EWeek Future City Competition in Washington. IEEE-USA also helped with the proposal that led to the IEEE becoming a major sponsor of the new engineering-based PBS television show, "Design Squad," which launches during EWeek. Check with your local Section to see how you can participate in EWeek 2007. See: <http://bmsmail3.ieee.org:80/u/4853/51381>

4) Dates Set for 12th Annual SET Congressional Visits Day

U.S. IEEE members are invited to join with hundreds of other engineers and scientists for the 2007 Science, Engineering & Technology Congressional Visits Day (CVD) to be held on 1-2 May 2007 in Washington, D.C. Coordinated by IEEE-USA, IEEE members will meet with their Members of Congress or their staff to drive home the message that federally funded research is critical to securing the nation's future. More information will be available in next few months at: <http://bmsmail3.ieee.org:80/u/4854/51381>

5) IEEE-USA Launches Critical Infrastructure Protection Committee

IEEE USA News - Cont

Citing a need to foster and assist policy initiatives related to critical infrastructure security needs, IEEE-USA will launch a Critical Infrastructure Protection Committee in January. IEEE-USA plans to work on these issues with

government and private homeland security organizations. Read the full news release at:

<http://bmsmail3.ieee.org:80/u/4855/51381>

6) Three New IEEE-USA E-Books Provide an Engineer's Guide to Lifelong Employability
IEEE-USA's latest series of e-books comprise an Engineer's Guide to Lifelong Employability, with installments on Resumes; The Transition from School to Work; and What Are You Worth? For more information, and to order, visit: <http://bmsmail3.ieee.org:80/u/4856/51381>

7) Quantities of Engineering Careers Brochure Available

IEEE-USA's new six-panel engineering careers brochure, designed for 11-13-year-old, sixth- to eighth-grade students, is available to educators, science and technology centers and other interested parties upon request. Titled "My Science, My Math, My Engineering! How Am I Ever Going to Use This Stuff in the Real World?," the brochure: lists courses youngsters should take to get ready for engineering; shows how they can figure out "if engineering is interesting"; and asks "what could *you* do if you were an engineer?" In one of the brochure panels, novelist and short story writer James Michener is quoted: "Scientists dream about doing great things, engineers do them." For more information, visit: <http://bmsmail3.ieee.org:80/u/4857/51381>; or contact IEEE-USA's Helen Hall at h.hall@ieee.org

8) IEEE-USA Salary Survey Ranked Second by About.com

The Web site ABOUT.COM has ranked the IEEE-USA Salary Survey as the #2 salary online calculator for tech professionals behind Salary.Com. The review states: "The IEEE salary survey is one of the most accurate out there for technology professions. View the "Top Six Salary Calculators Online" at

<http://bmsmail3.ieee.org:80/u/4858/51381>

Check out IEEE-USA's Salary Service for yourself at: <http://bmsmail3.ieee.org:80/u/4859/51381>

9) Enhanced IEEE-USA Employment Navigator Now Free

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

<http://bmsmail3.ieee.org:80/u/4860/51381>

10) Engineers Needed: Online Survey on Voluntary Job Termination

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

<http://bmsmail3.ieee.org:80/u/4861/51381>

Membership Assistance: member-services@ieee.org (e-mail)

+1 800 678 4333 (phone)

+1 732 562 5445 (fax)

Questions or comments about IEEE-USA Today's Engineer E-mail Update

should be directed to: <mailto:todaysengineer@ieee.org>

IEEE Career Alert

IEEE CAREER ALERT for 6 Dec 2006

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

IN THIS ISSUE:

1. How to Supercharge Your Online Job Search
2. Workaholics Beware
3. Would-Be Engineers Attracted by Fast Track
4. African Telecom Projects In Danger of Timing Out

Current Career Accelerator Forum Now Available for On-Demand Viewing

At some point during your career, you will probably want to change lanes. Maybe you'll want to start your own business or take an executive job at a start-up. If you missed this event in October, you can now view it 24/7 and hear leading industry experts and business trailblazers discuss the inside track on career moves in computer science and entrepreneurial ventures. To view or learn more, visit: <<http://www.spectrum.ieee.org/caf>>

1. How to Supercharge Your Online Job Search

At any given time, thousands of people are scouring the Internet looking for their dream jobs. To help you beat the odds, a Wall Street Journal article offers five tips for making your online job search more effective. Though the biggest and most popular job search sites are comprehensive ones such as Monster.com, you can save time and effort by focusing on sites that list only openings in your area of expertise. The article also advises posting your resume at these sites, since they are often the first stop for hiring managers looking to generate a list of candidates. (Career Alert would be remiss if it didn't mention the IEEE Job Site at <http://careers.ieee.org/>)

Read on at: <http://www.careerjournaleurope.com/jobhunting/usingnet/20061128-needleman.html?cjepos=home_whatsnew_major>

2. Workaholics Beware

Do you have an extreme job? If you work more than 60 hours per week, you probably do. A recently released study from the New York City-based Center for Work-Life Policy, which advocates flexible workplace policies such as telecommuting, defines extreme jobs as those that require the employee to log long hours, work under tight deadlines, handle a heavy travel schedule, and deal with work related events outside of already lengthy business hours. The study noted that 20 percent of the highest paid workers in the United States have extreme jobs. Though they are well compensated, they are working harder than anyone can sustain for very long. Most say their jobs undermine their health and relationships with their spouses and children. "It's the American dream on steroids," says Sylvia Ann Hewlett, the Center's founder and president. Read on at:

<<http://www.nytimes.com/2006/12/03/jobs/03wcol.html?ref=jobs>>

3. Would-Be Engineers Attracted by Fast Track

In an effort to steer more British youth into engineering, Sheffield's best and brightest high schoolers are being allowed to take college-level courses at Sheffield Hallam University. There, they have access to the school's engineering labs and receive expert instruction and mentoring in physics, design and technology, and chemistry. "Through interactive education, young people can be inspired to become employees and founders of engineering industries and explore innovative ways of using engineering," says Sue Forder, who runs the project. Students in the Post-16 Engineering program, which began in September, study at the University three days a week. "[The program] will give these highly motivated students the opportunity of a fast track entry into a high-tech engineering future," says Michael Lewis, principal at the high school from which the students were chosen.

Read on at: <<http://www.24dash.com/education/13941.htm>>

IEEE Career Alert -Cont

4. African Telecom Projects In Danger of Timing Out

One of the latest efforts to expand Africa's access to telecommunications links — which could bring relatively high paying jobs to the continent and improve its economic standing — may be dashed. A protocol to link existing fiber optic networks in northern and southern Africa with new ones in countries along the continent's east coast has not taken effect because telecommunications ministers from Zambia, Mozambique, Sudan, and Kenya did not endorse it by a mid-November deadline. As a result, the US \$200 million East Africa Submarine Cable System, meant to bring Internet access to the region and provide a bridge between international cable links, is delayed. Another broadband infrastructure project called Comtel, aimed at linking 21 African countries with Europe and Asia, is also falling further behind schedule. Read on at:

<http://www.cio.com/blog_view.html?CID=26271>

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/>>

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IEEE EYE on Washington

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1) CAPITOL HILL WATCH R&D Tax Credit Passed - Just before the 109th Congress adjourned for the last time, they struck a deal combining popular tax breaks, known as tax extenders, with trade measures. The tax extenders include the long-awaited renewal of the research and development tax credit. The R&D credit expired in December 2005, but the language in the latest bill would renew it retroactively and extend the credit through 2007.

Other Last Minute Activities of the 109th What Didn't Pass? Leadership Changes at House Science Committee

2) WHITE HOUSE & EXECUTIVE AGENCY WATCH

ITER Agreement Signed - Almost four years after the Administration announced that the U.S. would rejoin the ITER negotiations, representatives of China, the European Union, India, Japan, the Republic of Korea, and the Russian Federation and U.S. Under Secretary for Science Raymond Orbach signed the ITER agreement in Paris. The U.S. had withdrawn from participation in ITER during the design phase in 1998 because of concerns about the facility's predicted costs and project management. The project was significantly restructured after the U.S. withdrawal. Trial Projects Aimed At Spurring Health IT Network

3) REPORTS, SPEECHES & DOCUMENTS OF NOTE

Nanotechnology Facing Patent Roadblocks Innovation Task Force Warns That US Not Hitting Necessary R&D Benchmarks

4) U.S. COURTS ACTIVITY

Patent Community Hopes For Clarity From Supreme Court - The Supreme Court heard arguments in *KSR International v. Teleflex*, a case in which a gas-pedal manufacturer sued a competitor, claiming their patent should be invalidated due to its "obviousness." In November 2002, Teleflex Inc., the owners of a U.S. patent on electronic adjustable floor pedals, brought action against KSR for patent infringement. KSR claimed Teleflex had no right to patent their technology because it comprised, "nothing more than (i) a pre-existing 'adjustable pedal assembly' combined with (ii) a pre-existing 'electronic control.'"

5) US STATES WATCH

Maine Ponders Mega Investments for R&D, Technology Texas Council Will Address State Competitiveness and Governor Urges Pension Fund to Invest in Emerging Tech Companies

6) AWARDS & GRANTS

7) CONFERENCES, FELLOWSHIPS, PROGRAMS & INTERNSHIPS FOR ENGINEERS, and STUDENTS & SCHOLARS OF ENGINEERING WISE Program: Summer Opportunities in Washington, DC for Faculty and Students

8) LATEST IEEE-USA & IEEE ACTIVITIES

IEEE EYE on Washington -Cont

SAVE THE DATE! March 13 – 14, 2007 The 3rd Annual IEEE-USA Career Fly-In IEEE-USA Approves 2007 Engineering Public-Awareness Program to Enhance the Image of Engineers and Engineering

Whats New @ IEEE-USAs 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.

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/>.

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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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1. Standards Uproar Leads to Overhaul of Working Group

The move earlier this year to temporarily suspend the IEEE 802.20 working group — which was developing the latest standard for high-speed broadband Internet access — was rare, but not unprecedented. However, it forced the IEEE Standards Association Standards Board to reexamine who is on its working groups and to tighten up procedures to ensure that IEEE standards are developed in a fair and open manner. Read more at

<http://bmsmail3.ieee.org:80/u/4819/00086579>

2. What You Value About Membership

Which benefits are most important to you? According to a survey commissioned by the IEEE Membership Development Committee, the answers are a society membership, a subscription to IEEE Spectrum, and downloads from the IEEE Xplore digital library included with the basic membership fee. To read more about the survey results, go to <http://bmsmail3.ieee.org:80/u/4820/00086579>

3. Webinar Focuses on Mobile Devices and Network Security

On 7 December, the IEEE Spectrum Webinar, "Mobile Devices and Their Impact on Network Security," will feature live presentations from industry experts about maintaining security within an enterprise while taking advantage of new mobile devices. Register now at <http://bmsmail3.ieee.org:80/u/4821/00086579>

4. Spam Filtering, Anyone?

Besides immediately indicating your association with the IEEE and serving as a lifelong point of contact, an IEEE e-mail alias can also help rid you of a major headache: spam. Read on at

<http://bmsmail3.ieee.org:80/u/4823/00086579>

5. Marketplace of Ideas: Big Brother in the Sky

Developers working on a project called Security of Aircraft in the Future European Environment claim that their new on-board technology will be foolproof against hijackers. The system uses sensors, cameras, and

microphones to monitor passengers' behavior, and then land the plane on autopilot in an emergency. Is

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the increased safety worth being strictly monitored and giving up so much of your privacy? Weigh in at

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

Also, read responses to September's question on whether William Swanson, chief executive of Raytheon Co., was given a fair punishment — docked US \$1 million in pay — for plagiarizing portions of his book. Readers' opinions range from defending Swanson to calling for him to be fired. See the responses at

<http://bmsmail3.ieee.org:80/u/4824/00086579>

6. MyIEEE Adds New Features

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

<http://bmsmail3.ieee.org:80/u/4825/00086579>

7. Strengthening Financial Oversight

In the wake of new federal legislation sparked by recent corporate scandals, many organizations, including the IEEE, are beefing up their financial oversight practices. For more information, go to

<http://bmsmail3.ieee.org:80/u/4827/00086579>

8. Program Seeks Members to Act as Mentors

The IEEE Mentoring Connection Program is looking for members to help guide young professionals and recent grads with career planning and professional development. Learn more at

<http://bmsmail3.ieee.org:80/u/4828/00086579>

9. Get Certified in Communications Technology

The IEEE Communications Society is introducing a new certification program geared to technical professionals who want to sharpen their communications technology knowledge. Read more at

<http://bmsmail3.ieee.org:80/u/4829/00086579>

10. Countdown for Award Nominations

Seven months are left to get your nominations in for 2008 medals, recognitions, and prize paper awards. The deadline for the Board of Directors to receive nominations is 1 July 2007. For more about the

awards, go to <http://bmsmail3.ieee.org:80/u/4831/00086579>

11. We Want to Hear About Student Plagiarism

The Institute newspaper is looking for information from engineering school instructors about how they're handling incidents of students plagiarizing papers. If your school is doing anything to combat plagiarism

such as teaching students proper attribution, or using new software to spot plagiarism, let us know about it. E-mail the editors at [<mailto:institute@ieee.org>](mailto:institute@ieee.org)

Or if you need assistance with your membership, contact IEEE Member

Services by e-mail at [<mailto:member-services@ieee.org>](mailto:member-services@ieee.org) or by telephone +1 800 678 IEEE (+1 800 678 4333) from within the U.S., or +1 732 981 0060 from outside the U.S., or by fax +1 732 562 5445.

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Newsletter Staff

Editors:	Lisa Nichols-Dunn, 281-426-4784
	E-mail: lnicholsdunn@aol.com
Advertising:	281-426-4784



THE POCKET SCOPE
IEEE Houston Section
P.O. Box 460443
Houston, TX 77056-8014

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