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Upcoming Events

For latest, see www.ieee-or.org/events

IEEE Consultants (ORCNET) Meeting

Topic: A Software Development Process for Small Systems

Speaker: Neil Frederickson

Date: Thursday, July 28, 2005

Time: 6:00 PM - Eat (optional) and chat.

7:00 PM to 8:00 PM – Presentation

8:00 PM – Business Meeting

Location: IHOP, NW 158th & Walker Rd

Engineering in Medicine & Biology Society (EMBS)

Topic: Theory and Practice for a Physiological Signal Processing Software Toolset

Speaker: Alex Holland, MSEE, PhD candidate at OHSU-OGI, BME Department

Date: Wednesday, 2005 August 3

Time: 6:30 PM (following 6:00 social)

Cost: Free and open to the public.

Location: Rm 333, Smith Memorial Student Union, PSU

Engineering Management Society Meeting and Dessert Reception

Topic: Global Outsourcing Project management

Speaker: Prof. Burton V. Dean, College of Business, San Jose State University

Date: Wednesday, August 3, 2005

Time: 7:00-10:00 PM

Location: Pavilion Room, Portland Hilton

Cost: \$25 (to cover food and room cost)

Registration: See www.ieee-or.org/events

Registration deadline 1-August.

This special meeting of the EMS Chapter is being held in conjunction with PICMET'05. [For special PICMET 05 conference registration deal for local members (we cannot reveal cost), go to www.ieee-or.org/events]

COMMUNICATION SOCIETY PRESENTS WIRELESS LAN WORKSHOPS

Wireless LAN Analysis (4-day workshop)

Dates: Aug 29th -Sept 1st, 2005

Venue: Kingstad Place for Meetings, Beaverton, Oregon

This workshop offers hands-on learning using the latest enterprise-class wireless LAN analysis hardware and software. This course targets experienced networking professionals who wish to gain critical, detailed skills in wireless networking analysis. These skills include an in-depth understanding of the frame structure of 802.11 frames, frame exchange processes between wireless nodes, analyzing security solutions for both effectiveness and weaknesses, analyzing performance in both pure and mixed-mode environments, and using analyzers for site surveying and intrusion detection. The analysis course is for serious IT professionals with a desire to get to the root cause of any problem or situation in the most expedient manner possible.

For more info and registration go to <http://www.ieee-or.org/events/cwap>

Wireless LAN (4-day workshop)

Dates: Sept 13th -16th, 2005

Venue: Kingstad Place for Meetings, Beaverton, Oregon

This workshop provides the networking professional a complete foundation of knowledge for entering into or advancing in the wireless networking industry.



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From basic RF theory to link budget math, including topics from troubleshooting to performing a site survey, this course delivers hands on training that will benefit the novice as well as the experienced network professional.

For more info and registration go to <http://www.ieee-or.org/events/cwnp>

Wireless LAN Security (4-day workshop)

Dates: Oct 11th-14th 2005

Venue: Kingstad Place for Meetings, Beaverton, Oregon

This workshop addresses in detail Wireless LAN Intrusion, Security Policy, and Security Solutions. Audience: This course targets experienced networking professionals who wish to gain critical skills in wireless networking security, including how hackers attack networks and the means for preventing them from doing so. With the burgeoning growth of wireless LAN installations, all IT professionals must become knowledgeable about security - wireless security in particular.

For more info and registration go to <http://www.ieee-or.org/events/cwsp>

If you have any questions please call Pradeep Kumar at 503-702-1900 or via email at pradeep@ieee.org

From the Editor's Desk

by **Allen G. Taylor**

Download Movies Legally

With its online music store, Apple showed the world that you could profitably sell downloaded music. Apple just reported its best quarter ever, largely fueled by iPod sales and downloads from the music store. Now the time is ripe for legal downloads of movies too. One player in this new market is EZTakes in Easthampton, Mass. The EZTake plan is to let you download MPEG2-encoded movies complete with menus, subtitles, and surround sound and burn them to disc. You can then watch the movies on TV using any standard DVD player. EZTakes,

at www.EZTakes.com, is currently in beta testing and plans to go live within the next several months. Check out the beta site.

Forward to the Future

Is the world, and technology in particular, moving to fast for you? Find out where it is going at Accelerating Change 2005. The twin themes this year are Artificial Intelligence (AI) and Intelligence Amplification (IA). The stellar lineup of speakers include: David Fogel, Robert Hecht-Nielsen, Ray Kurzweil, Vernor Vinge, and Moira Gunn, among many others. Go to www.accelerating.ort/ac2005 to find out more.

Nifty SQL Editor

Looking for a powerful, but inexpensive tool for accessing relational databases? SQLPro could just be your answer. It is powerful, easy to use, and FREE is a very good price. Go to www.vive.net to find out more.

Official Approval of IEEE Oregon Section, Product Safety Engineering Society Chapter

Kudos to Henry Benitez, his PSE chapter leadership, and the EMC chapter for their significant efforts over the last several years. New chapter formation is a considerable accomplishment.

Membership News

• **New Life Members**

Leroy D. Barter
J. P. Sackinger
Terry T. Katayoma
Joseph K. Sheldon
Jack E. Day

• **New Senior Members**

Robert P. Colwell
Russell D. Mickiewicz



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The IEEE Life Members Committee - Pre-College Education Activities in Oregon

by Walter E. Myers, PE - IEEE Life Senior Member

In May 2005, the IEEE Life Members Committee awarded a grant to the Portland State University Apprenticeships in Science and Engineering (ASE) Program to fund one apprentice a year for three years in EE disciplines. The emphasis of the grant is to encourage gender and minority students to survey and prepare for the electrical/electronic engineering fields through an in-depth summer apprenticeship.

IEEE Oregon Section Members can experience this program first hand by attending the ASE Symposium to be held at PSU on August 20, 2005. This event will feature the completed summer projects of 148 apprentices through student posterboard and technical presentation sessions.

Volunteer moderators are needed for one hour student presentation sessions each featuring the work of four students. The format is identical to an IEEE Technical Society paper presentation. Moderators introduce speakers, keep them on time and make sure they answer questions from the audience.

For further information and Symposium moderator registration please visit <http://www.aseprogram.org> or call (503) 725-2340.

IEEE Presidents' Scholarship Fund Established

The IEEE Foundation is proud to announce the establishment of the IEEE Presidents' Scholarship Fund to accept contributions to support the largest pre-university scholarship offered by the IEEE. The IEEE Presidents' Scholarship recognizes a deserving student for an outstanding project in electrical engineering, information technology or other IEEE field of interest. The scholarship is presented during the annual Intel International Science and Engineering Fair (ISEF).

Administered by IEEE Educational Activities, with

assistance from IEEE volunteers who serve as the judges during the ISEF, this scholarship includes US\$10,000 payable over four years, complimentary IEEE Student and Student Society memberships, a framed certificate, and an engraved plaque.

Contributions made to the IEEE Presidents' Scholarship will provide the financial resources students need to pursue their engineering dreams. Checks may be made payable to the IEEE Foundation – IEEE Presidents' Scholarship Fund and mailed to the IEEE Foundation, 445 Hoes Lane, Piscataway, NJ 08854, USA. Credit card gifts may be made by sending an email to supportieee@ieee.org. To discuss alternative giving methods, please call the IEEE Development Office at +1 732.562.3860.

IN MEMORIAM: Jack Kilby, the Man Who Ushered in the Information Age

If it were not for the integrated electronic circuit, where would you be now? Almost 50 years ago, Jack St. Clair Kilby, who failed the college entrance exam at the Massachusetts Institute of Technology, revolutionized the way that the world computes, calculates and communicates by inventing the integrated electronic circuit. Thus making personal computers, satellite navigation systems, cell phones and the \$200 billion field of microelectronics possible. He also invented the handheld calculator and held more than 60 other patents. Forced to spend his summer working at Texas Instruments because he didn't have enough vacation time, he came up with the idea that a circuit could be made without the wires. Kilby's work and contributions inspired the IEEE to name one of their most prestigious awards after him. The award is given to those who, like Kilby, make outstanding contributions to the field.

"Public is Winner" in Electronic File-sharing Case - Court Protects Technological Innovation in MGM vs. Grokster, Says IEEE-USA

"The public wins in the Supreme Court's unanimous



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decision in the electronic file-sharing case announced on 27 June," according to IEEE-USA Intellectual Property Committee Chair Andy Greenberg. Greenberg, who filed IEEE-USA's amicus curiae brief in the MGM vs. Grokster case last January, said that the Court achieved a balance between protecting against copyright infringement and promoting technological innovation. According to IEEE-USA's Greenberg, the Court recognized "the interests of artists in their work and the interests of the public to have access to dynamic and innovative technologies for obtaining and enjoying those works." As a result, IEEE-USA asserts, the public is ensured continued access to music, art and technology.

In the Court's 9-0 opinion, Justice David Souter wrote that "one who distributes a device with the object of promoting its use to infringe copyright, as shown by clear expression or other affirmative steps taken to foster infringement, is liable for the resulting acts of infringement by third parties." The Supreme Court adopted an active inducement standard as advocated by IEEE-USA in its amicus brief filed with the Court. The decision imposes liability on companies that actively encourage or "induce" customers through words and deeds to infringe on copyrighted material, which focuses legal scrutiny on the company's infringing conduct rather than restricting its technology.

According to Justice Souter, the active inducement rule "does nothing to compromise legitimate commerce or discourage innovation having a lawful promise." He added that patent law's commerce doctrine, now codified, "leaves breathing room for innovation and a vigorous commerce."

Innovation will not be stifled, according to Justice Souter, who said: "We are, of course, mindful of the need to keep from trenching on regular commerce or discouraging the development of technologies with lawful and unlawful potential...The inducement rule...premises liability on purposeful, culpable expressions and conduct, and thus does nothing to compromise legitimate commerce or discourage innovation having a lawful promise."

IEEE-USA's Greenberg noted: "Active inducement has been part of patent law for more than 100 years, and has stood the test of time. In all that time, the sky has not fallen for technology companies in patent law," and it can be assumed "that a parade of 'horribles' will not follow under copyright principles."

To read the Court's opinion, see <http://wid.ap.org/scotus/pdf/04-480P.ZO.pdf>.

To view IEEE-USA's amicus brief in the case, go to <http://www.ieeeusa.org/policy/POLICY/2005/MGMvGrokster.pdf>.

For more on inducement, visit IEEE-USA's website at <http://www.ieeeusa.org/policy/issues/INDUCE/index.html>.

IEEE-USA Launches Employment Navigator to Enhance Members' Career Vitality

The IEEE-USA Employment Navigator allows IEEE members to connect quickly with hiring employers, build and send effective resumes and link to salary benchmarking and other career resources.

Employment Navigator collects 5 million job leads from 160,000 Web sites and places them in a single searchable database. The information comes from corporate Web sites, job boards, government and newspaper sites, and niche job sites (geography, industry and occupation specific). With this tool, IEEE-member subscribers get access to unpublished job opportunities that never leave an employer's Web site (an estimated 30 percent of jobs in the database).

The portal also provides tools for resume creation and distribution, and links to other IEEE resources like the IEEE Job Site (<http://careers.ieee.org/>) and the IEEE-USA Salary Service (<http://www.ieeeusa.org/careers/salary/>).

In a recent survey of Employment Navigator users, more



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than two-thirds rated the tool valuable or very valuable; 75 percent log in daily or weekly to search for jobs; and two-thirds reported finding leads not found on any job board.

A six-month subscription is just \$50 for IEEE members. See <http://www.ieeeusa.org/careers/employmentnavigator> for more information.

IEEE-USA Helps to Shape Monthly TV News Spots on IEEE Technologies

In collaboration with the American Institute of Physics (AIP), IEEE-USA is helping to shape television news spots about IEEE technologies -- distributed to the top 108 U.S. TV markets. AIP's "Discoveries and Breakthroughs" news service, which each month delivers twelve 90-second broadcasts in English and Spanish to subscribing stations, has a potential reach of more than 80 million households.

"Discoveries" provides a realistic image of how professionals in science, technology, engineering and math contribute to a better quality of life. The AIP service helps to improve technological literacy and to promote the public understanding of engineering and science.

IEEE-USA involvement this year has ensured that more engineering stories are included in news broadcasts, with assistance from "IEEE Spectrum," IEEE Technical Activities and IEEE Corporate Communications staff. In June, news feeds encompassed such IEEE-related technologies as a robotic arm for stroke victims, a mouse adapter for tremors and an oxyride battery.

For sample "Discoveries" video spots, go to <http://www.ivanhoe.com/science/>. The website includes background on each news segment as well as a list of local TV stations on which the spots are aired. Limited copies of CDs of sample segments are available for use by U.S. IEEE volunteers in middle and high schools, and can be obtained through the IEEE-USA contact below:

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Congressman Rohrabacher Receives IEEE-USA Award from IEEE-USA President

IEEE-USA President Gerard A. Alphonse presented Rep. Dana Rohrabacher (R-Calif.) with the IEEE-USA Distinguished Public Service Award in the congressman's office.

Rohrabacher, former chairman of the House Science Committee's Subcommittee on Space and Aeronautics, was honored "for long-term support of IEEE-USA's Congressional Fellowship program and leadership on federal policy issues of concern to the engineering community."

Rohrabacher thanked Alphonse for the award and said "we need more engineers and scientists to help shape national policy."

Steve Watkins served as an IEEE-USA Congressional Fellow last year in Rohrabacher's office, and Randall Brouwer holds the position in 2005. Both attended Tuesday's event.

IEEE Eye On Washington

The latest issue of EOW is now available for viewing at <http://ieeusa.com/policy/eyeonwashington/2005/05eow13.asp>. The web site version contains comprehensive text and links related to the following items:

· UPDATE: ENERGY POLICY ACT OF 2005

Despite previous uncertainties, the Senate showed overwhelming support for the Energy Policy Act of 2005 by passing the bill 85-12 June 28. The bill now heads into conference committee. The President's deadline is 1 August.



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- **THE U.S. PATENT SYSTEM: REFORM WILL REQUIRE ELUSIVE COMPROMISE**

We've all been taught that there are 2 sides to every story, that listening in an argument is more important than talking, and that compromise is reaching an agreement between something good, and something else that's also good. However, in the current patent reform battle, it appears that both sides see themselves as good and the other as bad. If so, is compromise in this situation possible if neither side perceives good on the part of the other?

- **NASA ADMINISTRATOR TESTIFIES ON THE FUTURE OF HIS AGENCY**

In his first appearance as the new administrator, Dr. Michael Griffin of the National Aeronautics and Space Administration (NASA), testified before the House Science Committee at a hearing examining the future of NASA. Griffin's prepared testimony, the hearing charter, and an archived webcast of the hearing are available at:
<http://www.house.gov/science/hearings/full05/june28/index.htm>

- **SENATE BILL PROHIBITS "ORBIT-GAP"**

The Commerce, Science and Transportation subcommittee that oversees NASA threw a kink into the Administration's space exploration plan by approving S. 1281, a bill that prohibits NASA from retiring the space shuttle before a replacement vehicle is ready to retain U.S. access to space.

- **MORE FLESH & BLOOD 007s AND LESS SPY SATELLITES**

The House Tuesday almost unanimously (409-16) passed the largely classified annual intelligence authorization bill (HR 2475) a bill that recommends cutting expensive satellite and airborne surveillance systems and hiring more spies, analysts and linguists.

- **HOUSE SCIENCE COMMITTEE HEARING:**

- **'U.S. LEADERSHIP IN NANOTECH IS THREATENED'**

In its second hearing on nanotechnology, the House Committee on Science Research Subcommittee was told by a top Presidential advisor and a panel of industry leaders that the U.S. is facing increasing competition in nanotechnology from foreign competitors. Read the Committee's full press release here: <http://www.house.gov/science/press/109/109-104.htm>. To listen to the hearing - Nanotechnology: Where Does the U.S. Stand? – and read full witness testimony, please visit:
<http://www.house.gov/science/hearings/research05/june29/index.htm>

- **ITER SITE CHOSEN: US PARTICIPATION NOW LIKELY**

Representatives of the U.S., European Union, Japan, the Russia Federation, China and Korea ended a long-running controversy by announcing that they have agreed on a location for the International Thermonuclear Experimental Reactor (ITER) – Cadarache, a town in southern France. By finally choosing a location, the parties have resolved a major difficulty surrounding the U.S. participation in ITER.

- **U.S. HOUSE CELEBRATES "END DEPENDENCE DAY"**

This week, Congressmen Charlie Dent (R-PA), Bob Inglis (R-SC), John Larson (D-CT) and Albert Wynn (D-MD) announced the formation of the new House Hydrogen and Fuel Cell Caucus. To read a first hand account of the End Dependence Day event at
<http://ieeusa.com/policy/features/dependence.asp>

- **NEW LEGISLATION OF INTEREST --THE PENSION PROTECTION ACT: "STRENGTHENING RETIREMENT SECURITY, PROTECTING TAXPAYERS BY FIXING OUTDATED WORKER PENSION LAWS**

Chairman Boehner's Committee maintains a summary of the bill at



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<http://edworkforce.house.gov/issues/109th/workforce/pension/ppasummarylong.htm> The Committee also maintains a fact sheet at <http://edworkforce.house.gov/issues/109th/workforce/pension/ppafactsheet.htm>.

• **U.S. SUBMITS REVISED SERVICES TRADE OFFER IN WTO NEGOTIATIONS – NO NEW COMMITMENT ON TEMPORARY VISAS FOR FOREIGN WORKERS**

Just before a 31 May deadline, U.S. Trade Representative Rob Portman announced that the U.S. had submitted an expanded offer on trade in services in the World Trade Organization (WTO) negotiations. At the urging of U.S. services industries, and after consultation with Congress and state and local governments, the U.S. offered to improve its GATS commitments in targeted services sectors. On the controversial issue called "mode 4," which concerns temporary entry for foreign service workers, the revised offer apparently makes no new commitment to expand the numbers of temporary visas.

• **NEW ACLU REPORT CHASTISES ADMINISTRATION'S SCIENCE POLICIES**

Science Under Siege - You either love them or you hate them, but the ACLU has joined the bandwagon of folks stressing the importance of a strong scientific community to the continued success of the U.S. A PDF of the report is available here: <http://www.aclu.org/Privacy/Privacy.cfm?ID=18534&c=39>

• **NATIONAL ACADEMIES: U.S. ENGINEER SHORTAGE BY 2020?**

The U.S. National Academy of Engineering has released a report saying that by 2020, U.S. universities will not be turning out enough engineers to meet the needs of the profession. Read on at: <http://www4.nationalacademies.org/news.nsf/isbn/0309096499?OpenDocument>

LATEST IEEE-USA ACTIVITIES - NEW!
TRACK IEEE-USA'S PROGRESS

Review IEEE-USA's year-to-date progress in working for the IEEE's U.S. members at the new IEEE-USA Year-in-Review Web page. Check out what IEEE-USA activities and programs helped the IEEE's U.S. members in 2004 at the new IEEE-USA Annual Report online. And find out what's on IEEE-USA's agenda through 2009, with the new, online IEEE-USA Strategic & Operational Plan.

For the IEEE-USA Year-in-Review, go to: <http://www.ieeeusa.org/about/yearinreview.asp>

For the IEEE-USA Strategic & Operational Plan, go to: <http://www.ieeeusa.org/volunteers/strategicplan/index.html>

Also, full listing of IEEE-USA lobbying activities can be found on our web site at: <http://ieeusa.com/policy/policy/index.html>