



IEEE

Buffalo Section Electrifying News

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If you would like to contribute thoughts or articles please send them to

sec.buffalo@ieee.org

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The IEEE Buffalo Section Board is pleased to welcome Pete Capelli and Mary Christ to our group. The IEEE Buffalo Section is searching out new members to assist with executive duties on the board. If there are other members interested in becoming officers or assisting please send an e-mail to:

sec.buffalo@IEEE.org

Countering IEDs

Improvised explosive devices, or IEDs, have killed untold thousands of Iraqis and Afghans, as well as more than 2000 coalition troops. The U.S. military has responded with an intensive program of technology development, spending US \$12.4 billion over the past three years on counter-IED equipment, R&D, training, and other measures. Read more at:

<http://spectrum.ieee.org/sep08/6627>

Countering IEDs: Terahertz Waves

A Brazilian start-up called Hoplon Infotainment is creating a massive online game called Taikodom. Hoplon has partnered with IBM to develop a server optimized for large-scale multiplayer games. Known as "the gameframe," the server combines a mainframe and Cell processors. Read more at:

<http://www.spectrum.ieee.org/aug08/6493>

Powering the Large Hadron Collider

The Large Hadron Collider at the European Organization for Nuclear Research (CERN), the largest physics experiment in history, has begun operation. The 27-kilometer accelerator draws 220 to 300 megawatts of electricity. But CERN doesn't generate any of its own power, so how can it ensure an unbroken supply of electricity? Read more at:

<http://www.spectrum.ieee.org/aug08/6525>

Defense Contractors Snap up Submersible Robot Gliders

This month, the U.S. Navy plans to announce the winner of a contract for 154 submersible robots called gliders, plus spare parts, launch-and-recovery

equipment, and monitoring systems. The order, valued at tens of millions of dollars, has sent defense contractors racing to gobble up the leading glider technologies. Read more at:

<http://www.spectrum.ieee.org/sep08/6611>

Paper Transistor

Researchers in Portugal say they've made a transistor using an inorganic oxide in which paper acts as a functional component. They say that paper-based transistors will be orders of magnitude cheaper and could be used for low-cost, flexible, and disposable microelectronics, such as biosensors, intelligent packaging, and light bulbs. Read more at:

<http://www.spectrum.ieee.org/sep08/6628>

Spectrum Video: Behind the Scenes At Cern

CERN fired up the Large Hadron Collider. Sally Adey visited the Geneva campus in July, just days before the detection devices were sealed up in preparation. Join her for a video tour of the twin five-story particle detectors, ATLAS and CMS, which scientists hope will usher in a whole new era of particle physics. View Now:

<http://www.spectrum.ieee.org/video?id=561>

Spectrum Video: 20 Years of Hits And Misses At The Hot Chips Conference

At this year's conference, an all-star gathering focused on high-performance microprocessors, IEEE Fellow Nick Tredennick led a panel that looked back at past chip predictions while simultaneously making new ones. General-purpose graphics processing units were the big topic this year, but what seems inevitable today may seem silly in a couple of years. View Now:

<http://www.spectrum.ieee.org/video?id=562>

Spectrum Podcast: Janna Levin Q&A

Author Janna Levin is a professor of physics and astronomy at Barnard College. Her second book, a novel called *A Madman Dreams of Turing Machines*, details the distant yet interconnected lives of Alan Turing, the so-called founder of modern computer science, and Kurt Gödel, one of the most important mathematicians of all time. Listen to it Now:

[http://spectrum.ieee.org/radio?date=03.09.08&segStart=](http://spectrum.ieee.org/radio?date=03.09.08&segStart=2)

[2](#)

Tech Talk: Electric Supergrids Gaining Traction

Greenpeace called for an underwater power grid crossing the North Sea to accelerate the installation of dozens of new offshore wind farms. The controversial

environmental activists mapped out an offshore network composed of 6200 kilometers of undersea lines, which could add 68 gigawatts of wind power capacity by 2020. Read more and comment:

http://blogs.spectrum.ieee.org/tech_talk/2008/09/electric_supergrids_gaining_tr.html

The Risk Factor: How Much Insight Into Our Children's Lives Is Too Much?

School systems are installing applications to allow parents to see what their children are doing during the school day. For example, one program allows parents to see what their kids are buying for lunch. This has led to a debate over whether this oversight capability helps or hurts in the long run. Read more and comment:

http://blogs.spectrum.ieee.org/riskfactor/2008/09/how_much_insight_into_our_chil.html

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Automaton: Why Autonomous Gliders Are the Hot New Ocean Technology

Gliders are a type of autonomous underwater vehicle (AUV) that is driven by a variable buoyancy system instead of a traditional propeller. Now AUV gliders are being snapped up by defense contracting companies in anticipation of a big contract that's due to be awarded soon by the U.S. Navy. Read more and comment:

http://blogs.spectrum.ieee.org/automaton/2008/09/04/why_glidars_are_the_hot_new_ocean_technology.html

The Sandbox: Games Outpacing Music Sales

We've all heard how Americans spend more money on video games than movie tickets. Now a representative of HMV, the mega-retailer, predicts that games (which now constitute 19 percent of the company's sales) could easily surpass music (currently 30 percent of sales) in the next two years. Read more and comment:

http://blogs.spectrum.ieee.org/gizmos/2008/09/games_outpacing_music_sales.htm

Quantum Weirdness: Two Times Zero Doesn't Always Equal Zero

Physicists examining the transmissions of individual quantum states have found that two times zero doesn't always equal zero. The finding, while still purely

theoretical, nevertheless promises to open up new methods of both strengthening quantum cryptography and assisting in the quest to build a quantum computer. Read more at:

<http://www.spectrum.ieee.org/aug08/6609>

Brazil's Massive Attack for Taikodom

A Brazilian start-up called Hoplon Infotainment is creating a massive online game called Taikodom. Hoplon has partnered with IBM to develop a server optimized for large-scale multiplayer games. Known as "the gameframe," the server combines a mainframe and Cell processors. Read more at:

<http://www.spectrum.ieee.org/aug08/6493>

Slideshow: Laser Graffiti

Want to paint 90-meter-tall messages on buildings without causing permanent damage? Graffiti Research Lab, based in New York City, does just that. They've created a program called Laser Tag and a portable projector system that gives artists the ability to create monster-size light paintings with a laser pointer. View at:

<http://www.spectrum.ieee.org/aug08/6510>

A Computer for the Clouds

A proposed supercomputer would do just one job "model global climate" but consume far less electricity than a general-purpose machine. Researchers at California's Lawrence Berkeley National Laboratory are developing a computer that will model clouds well enough to tell whether their net effect is to warm the world or cool it. Read more at:

<http://www.spectrum.ieee.org/aug08/6461>

A Connecticut Fuel Cell in South Korea's Grid

FuelCell Energy, in Danbury, Conn., offers customers a molten carbonate fuel cell that operates at a relatively high temperature and runs on raw fuels as varied as coal gas, natural gas, and waste-processing gases. Recently, it's made quite an impression overseas. Here's how the U.S. firm's fuel cells hit a home run in Asia. Read more at:

<http://www.spectrum.ieee.org/aug08/6472>

Spectrum Podcast: It's All About The Co2

There's a new unit for measuring a car's emissions of greenhouse gases: grams per kilometer of CO2. The nice thing about grams per kilometer is that it's inversely proportional to mileage. Spectrum's automotive editor, John Voelcker, reports that the current trend in Europe is to market vehicles that cut CO2 output and boost mileage. Listen to it Now:

<http://spectrum.ieee.org/radio?date=31.07.08&segStart=5>

Tech Talk: Earthquake Risks in The Greater NYC Area Reassessed

Seismologists at Columbia University have published a study on the likelihood of a significant earthquake striking the New York metropolitan area.

They found that two fault systems are found to converge very close to the controversial Indian Point nuclear power plant, 24 miles north of the city. Read more and comment:

http://blogs.spectrum.ieee.org/tech_talk/2008/08/newly_discovered_seismic_fault.html

The Sandbox: There's Game Gold In Them Hills

Richard Thurman is a 35-year-old guy who has made a lot of money in video-game gold. His business: creating auto-playing bots that "farm" gold from massively multiplayer online games. Now comes word that the gold farming business could be worth a billion dollars. Read more and comment:

http://blogs.spectrum.ieee.org/gizmos/2008/08/theres_game_gold_in_them_hills.htm

Shhhhhh.

Trade secrets.

Just one of the Intellectual Property issues Phillips Lytle can help you with. Our attorneys have the diverse technical and engineering backgrounds to provide unique insight into all areas of the law, including trade secrets, patents, trademarks, copyrights, and IP litigation. To get in touch with our IP group, just call Mike Berchou at (716) 847-7078.



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The Risk Factor: Software Problem Halts U.S. Flights

A software problem at the U.S. Federal Aviation Administration's Hampton, Ga., computer center yesterday caused delays for hundreds of flights across the country. The U.S. East Coast was hardest hit, but the ripple effects were felt throughout the nation, with over three dozen airports experiencing delays. Read more and comment:

http://blogs.spectrum.ieee.org/riskfactor/2008/08/software_problem_halts_us_flight.html

Kam and Ray Have Their Say

In June The Institute introduced you to the two candidates for 2009 IEEE President-Elect, by filling you in on some of their background and personal interests. Now it's time to get down to business and learn where Moshe Kam and Pedro Ray stand on important IEEE issues. Read on at

<http://bmsmail3.ieee.org:80/u/12619/03022118>

Time Running Out to Vote

You've got until 1 October--a month earlier than usual--to return your annual election ballot, which was sent out in August. For more information, visit

<http://bmsmail3.ieee.org:80/u/12620/03022118>

Marketplace of Ideas: Women and Bias

A recent study by the Center for Work-Life Policy, a nonprofit that researches women and work, concluded that women leave the science, engineering, and technology fields in disproportionate numbers because of gender bias. While women enter these fields in high numbers--41 percent of employees here are women--and 75 percent of them score well on performance reviews at the beginning of their careers, more than half--52 percent--later leave. According to the study, they're driven out by a "pervasive macho culture" in which women face strong bias, dismissive attitudes from male colleagues, and even sexual harassment.

From your experience, do you agree with these findings? Weigh in at <mailto:institute@ieee.org>

Read responses to June's question, which asked whether you or your Internet Service Provider should be blamed for illegal downloads. Most said the guilt should lie with the individual, and others felt that the uploaders were to blame. Check out members' responses at

<http://bmsmail3.ieee.org:80/u/12621/03022118>

IEEE to Mark 125th Anniversary

Preparations are under way for next year's celebration of IEEE's 125th anniversary. Throughout 2009, IEEE will host activities around the world to celebrate the organization's successes, leverage its prestige, and help increase its visibility and that of its members and the profession. Read more at

<http://bmsmail3.ieee.org:80/u/12623/03022118>

The Institute Wants to Hear From You

Was your parent or grandparent a member of the American Institute of Electrical Engineers, one of IEEE's predecessor societies? In light of IEEE's upcoming 125th anniversary, The Institute is considering doing a story on such members. Let the editors know at

<mailto:institute@ieee.org>

Boosting IEEE's Visibility and Prestige

IEEE has embarked on a multimillion-dollar Public Visibility Initiative, a five-year communications program that seeks to raise the organization's global visibility and improve the image of the engineering profession. For more information, visit <http://bmsmail3.ieee.org:80/u/12624/03022118>

Networking Technology's History

The IEEE History Committee has a bold ambition--to make IEEE the go-to resource for the history of technology. The center will make a leap in this direction later this month with the beta launch of its IEEE Global History Network Web site. Learn more at <http://bmsmail3.ieee.org:80/u/12626/03022118>

New IEEE Award Honors Power Engineer

The IEEE Foundation, in cooperation with the IEEE Power & Energy Society, recently established the Douglas M. Staszkesy Distribution Automation Award. The annual award recognizes those who have devised ways to automate electric utility distribution systems that improve system reliability and availability. For more information, visit <http://bmsmail3.ieee.org:80/u/12627/03022118>

Hard Work Gains Student Branch Title of Year's Best

Have you been busy this past year? Well, the members of the IEEE student branch at Virginia Polytechnic Institute and State University (better known as Virginia Tech), in Blacksburg, Va., have taken busy to a high new level. Read how their hard work led the branch to be named the school's 2007 Society of the Year, at <http://bmsmail3.ieee.org:80/u/12628/03022118>

Part-time Passions

IEEE members don't just sit around and work all day. Some have intriguing hobbies. A German student member performs tricks on a BMX bike, and in Italy, a senior member is into ballet. For their stories, visit <http://bmsmail3.ieee.org:80/u/12630/03022118>

Conferences: November to January

IEEE conferences in these months cover such topics as ultrasonics, sustainable energy, IT in medicine and education, electron devices, wireless systems, and electromagnetic compatibility. For more information, visit <http://bmsmail3.ieee.org:80/u/12631/03022118>

Nominations Needed for "2009 New Faces of Engineering"

IEEE-USA is seeking nominations for "2009 New Faces of Engineering." The deadline for nominating someone is 17 October. The program recognizes engineers new to the profession with outstanding

educational and career accomplishments. The nomination form and more information are available at <http://bmsmail3.ieee.org:80/u/12632/03022118>

WL U HIRE ME?

When it comes to communication, electronic devices are blurring the lines between formal and casual, professional and personal. And many job candidates have a hard time making distinctions. For example, truncated, emoticon-filled text is so common nowadays that some people don't give it a second thought. But this form of shorthand, which is the lingua franca of IM and text messaging is still not acceptable in a business context. And throwing them into post-interview thank you note can be an instant candidacy killer because it bespeaks questionable judgement. One hiring manager summed up the attitude of most employers when she said, "If I'm going to give you a job, do I really want you communicating to our clients in this fashion? No." Read on at: http://online.wsj.com/article/SB121729233758791783.html?mod=CarJMain_topmiddle

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Being the Life of the Party Could Kill Your Career

The company barbeque is this weekend. But before you arrive at the venue, take a second to remind yourself that your chances for promotion or getting a plum assignment may hinge upon how you come across at social functions with your colleagues. Work related social functions call for much of the same etiquette that you had to display back when you were a prospective employee. So dress the part. Mix and mingle--without being pushy or boorish. "Take the opportunity to be seen

and say hello, but don't chase executives or higher-ups around the venue trying to impress them," says image consultant Dianne Daniels. Don't eat or drink excessively. And, oh yeah, don't forget to thank the event's hosts or organizers. Read on at:

<http://career-advice.monster.com/business-etiquette/Navigate-Company-Events/home.aspx>

The Interview Starts in the Parking Lot

You have arrived at the offices of a prospective employer. You are not under arrest, but from this point on, anything you say--verbal or non-verbal—can be used against you. According to a career expert cited in a Yahoo! HotJobs article, "Many hiring managers go on first impression and spend the rest of the interview justifying their decision." So the firmness of your handshake, your posture, and the way your clothes fit are as important as your education and experience. After all, the hiring manager already has your resume. The interview is his or her opportunity to determine whether you are a better fit, in terms of the firm's culture, than other candidates. Read on at:

http://hotjobs.yahoo.com/career-articles-recruiter_roundtable_the_first_10_minutes-459

IEEE Kenya Chapter to Fight Poverty with Technology

On 12-13 September, the IEEE Kenya Chapter will host its annual Engineering Students' Exhibition at Sarit Expo Hall in Nairobi. The event is a contest challenging students from universities across Africa to invent products that have commercial potential. All of the entries will be based on this year's theme, "ICT & Alternative Energy in Rural Development." The point is to use technology to stimulate socioeconomic development in the continent's poorest regions. Prizes for the winners will include: support from Kenya's ICT Board in bringing their inventions to market, laptop computers, Apple iPhones, and oscilloscopes. Read on at:

<http://eng.centurionsystemsLtd.com/>

Job Hunting?

The IEEE Job Site, available exclusively to IEEE members, can help you locate career opportunities easily and confidentially. Just complete a profile of your qualifications and requirements, and you'll be notified via email when a suitable job becomes available. IEEE Job Site was named one of the top online recruitment sites by Weddle's Guide to Employment Web Sites. And top employers know that IEEE members are the most qualified electro technology and information-technology professionals in the world. Take a few minutes to register with the IEEE Job Site and check out your career options today! <http://www.ieee.org/jobs>

Would your company like to reach over 500 engineers and businesses with minimal effort and cost?

Contact us by email: sec.buffalo@ieee.org

or by U.S. mail at:

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