

The



IEEE Newsletter

PUBLICATION OF THE NORTH JERSEY SECTION OF THE INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

NEWS from IEEE-USA:

Conference to Examine Role Technology Can Play in Managing Health Care Costs and Improving Patient Care

Washington (7 June 2007) - The role technology can play in helping the United States manage health care costs by advancing the diagnosis, treatment and prevention of disease will be examined in a conference at the National Institute of Standards and Technology (NIST) in Gaithersburg, Md., on 25 September.

Major technological advances have greatly improved patient care since the 1970s, but have come at a steep price. U.S. health care spending is expected to rise from nearly \$2 trillion in 2002 to more than \$4 trillion by 2015.

The goal of Economic Strategy for Health Care through Bio and Information Standards and Technologies is to emphasize the need to develop a long-term economic strategy for implementing bio and health care information technologies into our health care system. By developing breakthrough biomeasurement, bioinformatics, biologically based and health-information technologies, rising health care costs can be reigned in and quality can be improved.

The outcome of this conference will benefit patients and society by improving the quality and convenience of care, managing health care costs and increasing access to affordable and effective health care throughout the world, Biotechnology Council Chair Dick Doyle said.

The all-day conference will bring together key government, industry, academic and research leaders and patient advocates. This will help policy makers and corporate leaders understand where technology investments should be made to enhance health care quality, wellness and disease prevention, while minimizing cost. Dr. Jerry Grossman, senior Fellow and director of the

Harvard/Kennedy School Health Care Delivery Policy Program and chairman emeritus of New England Medical Center, is the honorary chair.

Because of the complexity and scope of the issue, the conference requires decision makers, researchers, engineers and providers from many traditional disciplines to collaborate and tackle the challenges together, Doyle said.

For more information and to register, see <http://www.itl.nist.gov/Healthcare/conf/ind ex.htm>.

Preceding the conference, selected invitees will participate in a half-day workshop at NIST on 24 September. Robert Cresanti, Commerce Department under secretary for technology, will address the participants. Major findings will be shared with conference attendees.

The Biotechnology Council, NIST and IEEE-USA are cosponsoring the event. The Biotechnology Council is composed of many professional societies, including: the Society for Biological Engineering; the Biomedical Engineering Society; the American Society of Mechanical Engineers, the Healthcare Information Management Systems Society; and the Institute of Electrical and Electronics Engineers. These societies have a total membership of nearly 750,000.

Cosponsor URLs: Biotechnology Council (<http://ewh.ieee.org/tc/biotech/>); NIST (<http://www.nist.gov/>); IEEE-USA (www.ieeeusa.org).

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

Employment: Imaging Product Design Engineer

Vision Research, a local design and manufacturer of very high speed digital cameras, is looking for qualified engineers to join its design team. Expertise in digital and analog design is essential. Digital imaging system design expertise is preferred. Apply confidentially to Dick Toftness; rtoftness@visionresearch.com. Vision research is an EEO employer.

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IEEE NJ SECTION HOME PAGE

<http://web.njit.edu/~ieeenj/>

IEEE NJ SECTION NEWSLETTER HOME PAGE

<http://web.njit.edu/~ieeenj/NEWSLETTER.html>

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The North Jersey Section Executive Committee usually meets the first Wednesday (except holidays and December) of each month at 7:00 PM. Meetings are open to all members. For information on meeting agenda contact Secretary Russell Pepe at (201) 669-7599, rpepe@att.net.

NEWS from IEEE-USA:

IEEE-USA Backed Engineering News Spots Aired in 23 U.S. TV Markets; IEEE-Cosponsored PBS Engineering Reality Program Debuts First Six Shows

Washington (8 May 2007) - The IEEE is reaching out to two different segments of the public -- from nine-to-13-year-olds and to adults -- in its quest to promote the understanding of engineers and engineering, as well as to encourage technological literacy. For the third consecutive year, IEEE-USA is underwriting the American Institute of Physics (AIP) "Discoveries & Breakthroughs" TV news spots. In addition, for the first time, the IEEE is a cosponsor of a new PBS TV series, the engineering-based reality program, "Design Squad."

"Discoveries & Breakthroughs" TV News Spots: Each month, AIP's "Discoveries & Breakthroughs" news service delivers a dozen 90-second spots (in English and Spanish) to the top 66 television markets in the United States with a potential reach of 75-million viewers.

Recent studies have shown that most Americans learn about engineering through television news, either local or cable. Additionally, according to University of Minnesota research commissioned by AIP, short-term exposure to "Discoveries & Breakthroughs" news spots on local TV stations "fosters positive perceptions about the accessibility" of science and technology and the role they play in society. Further, the research documents that those exposed to "Discoveries & Breakthroughs" stories "appear to be more likely than their counterparts to talk with peers" about sci-tech. And the university researchers conclude that "the program could activate social networks in support of key legislative and policy-related goals."

Since 2005, IEEE-USA has helped to underwrite almost 300 local TV news stories on engineering and science. In the last 16 months, 25 stories about IEEE-related technologies aired in 23 different TV markets, including New York, Chicago, Philadelphia, San Francisco, Tampa-St. Petersburg, Phoenix and Miami. The average number of household views for these 23 markets combined is estimated at more than 70-

million. Stations airing the IEEE-related spots were a mix of ABC, CBS, NBC, Fox, Univision, cable and independent affiliates.

Recent IEEE-technology-related stories included: "Engineering Makes Movie Motion Realistic"; "Engineers Invent Doppler-Based Stethoscope"; "RFID-Based Recycling Technology Makes Philadelphia Greener"; and "Automotive Engineers Team Up to Improve Energy-Saving Technology." To view these news spots, go to <http://www.aip.org/dbis/>.

A limited number of two DVD compilations of IEEE-related technologies included in "Discoveries & Breakthroughs" is available to IEEE members by sending an e-mail to p.mccarter@ieee.org.

"Design Squad" Engineering Reality PBS TV Program: Intended for youngsters in the critical "tween" age group of nine-to-13, PBS' "Design Squad" is part of a national, multimedia initiative designed to pique interest -- especially among girls and minorities -- in engineering concepts and challenges. Since March, PBS has aired six of 13 programs on such engineering challenges as converting kiddie toys into motorized dragsters; creating original musical instruments; building "bizarre" bikes; raising 20-foot bridges without power tools; devising a way to cover all the angles of a basketball game via remote-controlled cameras; and designing "the most durable, portable and low-cost" peanut butter making machines for a women's collective in Haiti.

"Design Squad" also includes a Web site that provides behind-the-scenes information, games and descriptions of the program's engineering challenges and solutions, plus an e-zine that highlights the role of engineers in society. And, as part of the program's public-outreach component, IEEE-USA is scheduling a workshop for U.S. IEEE volunteers at an upcoming meeting to bring "Design Squad" challenges to local schools and communities.

The program has begun to elicit positive reactions. Common Sense Media, which provides family television reviews, notes on its Web site: "What sets this series apart from other reality shows is the teens' positive attitude

-- they don't get upset over losses, instead celebrating (and congratulating) their peers' ingenuity. Tweens with the building bug will love this smart series -- and with four girls in the cast, viewers will be reminded that engineering isn't just a guy thing anymore."

To read the entire review, go to <http://www.common sense media.org/tv-reviews/Design-Squad.html>.

Full "Design Squad" episodes can be downloaded at <http://pbskids.org/designsquad/>.

To find local PBS stations and listings, see <http://pbskids.org/tvschedules/localizer.html?dest=/designsquad/index.html&nola=DESQ&station>

Major funding for the program is provided by the National Science Foundation and the Intel Foundation; additional funding comes from the IEEE, the American Society of Civil Engineers, Tyco Electronics and others.

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: Pender M. McCarter, APR, Fellow PRSA, MIPRA,
IEEE-USA Senior Public Relations Counselor
Phone: (202) 530-8353
E-Mail: p.mccarter@ieee.org

IEEE North Jersey Section Activities August 2007

Aug. 1 – “NJ Section Meeting”, 6:30 PM, “Executive Committee Meeting” - 7:00 PM, ITT, 77 River Rd, Clifton, NJ. Russell Pepe at rpepe@att.net.

Aug. 3-5 – “History of Electric Power Conference”, New Jersey Institute of Technology, Newark, NJ. For additional information contact Ken Oexle (973) 386-1156.

Upcoming Meetings

Sep. 5 – “NJ Section Meeting”, 6:30 PM, “Executive Committee Meeting” - 7:00 PM, ITT, 77 River Rd, Clifton, NJ. Russell Pepe at rpepe@att.net.

Sep. 15-Dec. 1 – “C# .NET Programming” by Dr. Donald Hsu, North Jersey Section, Saturday Mornings, 10 sessions, 9:00 AM-12:00 PM, AVTI, 25 Salem Street, Hackensack, NJ. Donald Hsu (yanyou@hotmail.com).

Oct. 16-Dec. 11 – “Manage Global E-Commerce Projects” by Dr. Donald Hsu, North Jersey Section, Saturday Mornings, 8 sessions, 9:00 AM-12:00 PM, NJ International Bulk Mail Center, Jersey City, NJ. Donald Hsu (yanyou@hotmail.com).

Oct. 25 – “Life Grade Lunch”, Hamilton Park Conference Center, Florham Park, NJ. Ken Oexle (973) 386-1156.

Members and Non-Members Welcome
PLEASE POST

2007 Awards Banquet



Award recipients with the Section Chair. (L-R) Ron Quade, Dr. Sanghoon Shin, Ken Oexle, Kirit Dixit-Section Chair, Greg Olson, Harry Roman

Kirit Dixit (L), Section Chair, presents Region 1 Award to Dr. Sanghoon Shin recognizing his service to the Section, the MTT Society and local MTT/AP Chapter



Kirit Dixit (L), North Jersey Section Chair presenting a Region 1 Award to Ron Quade, PES Chapter Chair, recognizing his Outstanding Contributions and Leadership in Advancing the Continuing Education and Professional Development of Engineers through the Chapter's Successful Technical Lecture and Seminar Programs

Roland Dixon (L) presenting the North Jersey Outstanding Engineer Award to Harry Roman



Ron Quade (L), North Jersey PES Chapter Chair, presenting the Corporate Recognition Award to Greg Olson for the Outstanding Support of Public Service Electric & Gas Company in fostering IEEE activities

Hazem Huss (L), IAS Chapter representative Region 1, presents IAS Outstanding Chapter Award to Ken Oexle, Chair North Jersey Chapter, and Won Kim, Chapter Vice-Chair



PES Region 1, 2, & 3 Chapter Representative Mike Miller (R) presenting Ron Quade, North Jersey PES Chapter Chair, with a check for the high performance chapter award

Life Grade Luncheon

The PES Chapter and the Section will sponsor a luncheon for North Jersey IEEE Life Grades (Members, Senior Members and Fellows) on Thursday October 25 at the Hamilton Park Conference Center, 175 Park Avenue, Florham Park, NJ 07932. The luncheon will begin at 11:30 AM in the Terrace area. Cost is \$5.00 per person.

Advance registration is required prior to October 15. We can accommodate only 30 people. Registrations will be processed in the order of receipt and will be confirmed by return mail. Please complete the following registration form and include a check Payable to the North Jersey Section IEEE in the amount of \$ 5.00 per person.

Reservations cannot be accepted at the door. For additional information contact Ken Oexle (973) 386-1156.

IEEE Life Grade Luncheon Registration NJ - Oct 25, 2007

Name _____

Address _____

Phone _____

IEEE # _____ Life Grade ____ Yes

Return to: Ken Oexle
11 Deerfield Rd
Whippany, NJ 07981

Prior to October 15 and enclose \$5.00 Check payable to **NJ Section IEEE**

IEEE North Jersey Section Course C# .NET Programming

Saturday morning, September 15, 2007 through December 1, 2007

Ten weekly classes (September 15, 29, October 6, 13, 20, 27, November 3, 10, 17, December 1, 2007)

Place: AVTI, 25 Salem Street, Hackensack, NJ (Checks should not be mailed to this address)

IEEE North Jersey Section thanks Avtech for sponsoring this “hands-on” course at its site.

The IEEE North Jersey Section is offering a course entitled "C# .NET Programming". Since 2002, C# .NET has generated significant headway in Fortune 1000 enterprise development systems. Dice.com lists 850+ C# .NET jobs in the New York tri-state area daily! This course will cover the fundamentals of C# language, the .NET framework, window and web-based applications, ADO.NET, ASP.NET, and XML. It will be useful for anyone to develop applications based upon these tools.

You will receive the IEEE Certificate of Completion when you finish the course. Microsoft Corp. has MCAD and MCSD certifications. You may wish to get certified by taking the necessary Microsoft exams with the knowledge gained from this course.

Instructor: **Donald Hsu, Ph.D.**, has been a corporate manager for 11 years and is an experienced trainer. Since 2001, he has trained 450+ people in C++, Java, WebLogic, XML, C# .NET courses in 7 organizations.

TOPICS

1. Compare the enterprise development tools using C++, Java to C# .NET
2. Define Visual Studio .NET Version 2005
3. Identify C# syntax, data type, control structures and common language runtime
4. Distinguish methods, arrays, object-oriented programming
5. Build graphical user interface, multithreading, files and streams
6. Explain the benefit of using extensible markup language (XML)
7. Select database, SQL server, and ADO .NET
8. Choose ASP .NET, web forms, web controls, and web services
9. Operate the network, streams-based socket and mobile toolkits
10. Search and sort, data structures, generics and collections
11. Present student Projects

WHERE: AVTI, 25 Salem Street, Hackensack, NJ

WHEN: 10 Saturdays, September 15, 29, October 6, 13, 20, 27, November 3, 10, 17, December 1, 2007, 9:00 AM to 12 noon

COST: IEEE (& affiliate) members \$500; Non-IEEE members \$550.

CONTACT: Donald Hsu, yanyou@hotmail.com

REGISTRATION: C# .NET Programming

Please mail the completed registration form with the check (**payable to “North Jersey Section IEEE”**) to:

Donald Hsu, Chair - Education Committee, IEEE North Jersey Section, P.O. Box 2093, Fort Lee, New Jersey 07024

Name: _____ Email address _____

Non-member

IEEE Member Member #: _____ Member of _____ technical society

Employer: _____

Employer Address: _____

Home Address: _____

Business (day) telephone #: _____ Home telephone #: _____

Please enclose required fee payable to: **North Jersey Section IEEE**

As soon as a fully completed registration form and the payment are received, you are officially registered for this course. Registration status will be notified in an email format.

I wish to receive IEEE Completion Certificate

Signature: _____

IEEE North Jersey Section Course Manage Global E-Commerce Projects

*Tuesday Evenings, October 16, 2007 through December 11, 2007
Eight weekly classes (October 16, 23, 30, November 6, 13, 20, 27, December 11, 2007)
USPS, NJ International Bulk Mail Center, 80 County Rd, Jersey City, NJ 07097
(Checks should not be mailed to this address)*

IEEE North Jersey Section appreciates USPS, BMC for sponsoring this course at its site

This course covers the management and entrepreneurial aspect of "Global E-Commerce". Dice.com lists 5700+ Project related jobs in the New York area daily! Using Microsoft Project, you completed projects in construction, engineering, information technology, marketing or finance. When you see a niche in the market place, you write a business plan. Then you get finance for your startup. Setting up a website, you are now selling to 6 billion world customers. You will be the next Ebay, MySpace or YouTube billionaire\$\$\$.

How do you do this? Do you have to learn HTML, JavaScript, Flash, or PHP? Do you worry about the accounting and legal issues? How do you get all the eyeballs? What is the catch? This course will provide detailed case studies of 8+ countries on their success stories using e-commerce. It covers the complexity of dealing with business partners, competitors, customer retention, and payment issues. In the continental Europe, there are 50 e-discount airlines since 1996! Yes anyone can start a web e-business, but there is no guarantee of success.

By taking this course, you can manage projects more effectively or you can start your own e-business. You will receive the IEEE certificate of completion when you finish the course. (This is *not an exclusive PMI examination prep course*).

Instructor: **Donald Hsu, Ph.D.**, has been a corporate manager for 11 years and is an experienced trainer. Since 1999, he has trained 950+ people in *Accounting, International Business, Java, Global Finance, Marketing Research and Project Management* courses in eight organizations. He started and sold three businesses. Since 2004, he has been running a non-profit global e-business.

TOPICS

- | | |
|---|--|
| 1. Explain the need for a project manager | 6. Compare France, Germany and Japan E-Commerce |
| 2. Define SOW, PERT, GANTT, CPM, and scope of the project | 7. Identify China and Taiwan E-Commerce |
| 3. Complete milestones, condition of satisfaction and final project reports | 8. Distinguish Brazil and Mexico E-Commerce |
| 4. Contrast globalization and national diversity | 9. Select other European countries |
| 5. Choose the Silicon Valley model | 10. Analyze global convergence issues and present student Projects |

WHERE: NJ International Bulk Mail Center, Jersey City, NJ. (Checks should not be mailed to this address)

WHEN: 8 Tuesdays, October 16, 23, 30, November 6, 13, 20, 27, December 11, 2007, 6:30-9:00 PM.

COST: IEEE (& affiliate) members \$420; Non-IEEE members \$470

CONTACT: Donald Hsu, yanyou@hotmail.com

REGISTRATION: Manage Global E-Commerce Projects

Please mail the completed registration form with the check (**payable to "North Jersey Section IEEE"**) to:

Donald Hsu, Chair - Education Committee, IEEE North Jersey Section, P.O. Box 2093, Fort Lee, New Jersey 07024

Name: _____ Email address _____

Non-member

IEEE Member Member #: _____ Member of _____ technical society

Employer: _____

Employer Address: _____

Home Address: _____

Business (day) telephone #: _____ Home telephone #: _____

Please enclose required fee payable to: **North Jersey Section IEEE**

As soon as a fully completed registration form and the payment are received, you are officially registered for this course. Registration status will be notified in an email format.

I wish to receive IEEE Completion Certificate

Signature: _____