NORTH JERSEY SECTION CELEBRATES 50 YEARS!

NJ Computer Chapter:

Adaptive Product Management

On Tuesday, September 21, 2004, the IEEE North Jersey Section Computer Chapter will host a presentation titled "Adaptive Product Management" by Vincent Socci.

About the Talk

New product development engineers promote adaptive prototyping as a method to manage unpredictable engineering development. However, project managers reject the business challenges, risks and uncertainties of the adaptive development environment. Adaptive Product Management (APM) bridges the gap between unpredictable, adaptive technology development and predictive, practical product management techniques.

The technical merits and management challenges of using adaptive development in today's customer-centric business environment are discussed. APM forces a product development paradigm shift from execution of known constraints to learning of unknown product potential. A "pull" development strategy creates a lean, value-add product development cycle. APM uses time-phased product demands to map development. APM implementation strategies, best practices and performance control warnings are outlined. Participants will learn how to effectively deploy APM in their organizations and new technology development applications.

About the Speaker

Vincent Socci is a product manager and cross-disciplined engineer (systems, HW, SW). His technology expertise includes embedded systems, sensors and signal processing, power control systems, and diagnostics. Mr. Socci has over 15 years of experience in aerospace, automotive and defense systems. He facilitates business and technology courses for the State University of New York and the University of Phoenix. Mr.

Socci holds an MBA in technology management, and MS and BS degrees in electrical engineering.

As Principal of On Target Technology Development, Mr. Socci supports clients with technology planning, program management, systems engineering and new product development. He has applied the safety-critical design concepts presented in this paper in aerospace, automotive, locomotive, marine, utility and medical applications. He can be contacted at vsocci@ontargettechnology.com.

All Welcome!

You do not have to be a member of the IEEE to attend. Bring your friends and network during the free pre-meeting buffet starting at 6:00 PM

Registration Recommended

Registration in advance is recommended with full name, affiliation and nationality so that an admission badge will be available for you on arrival.

Time: 7:00 PM, Tuesday, September 21, 2004. Pre-meeting buffet starts at 6:00 PM.
Place: Lucent Technologies, 67 Whippany Rd, Room 3C-210, Whippany, NJ.
Information: Seth Jakel (973) 731-1902, (sgjakel@comcast.net), Vivek Shaiva (908) 229-6125 (vshaiva@computer.org), or Arthur Greenburg (973) 386-6673 (ahg1@lucent.com).

Interested in Being a North Jersey Section Officer?

The North Jersey Section Nominating Committee will soon begin to consider candidates for section officers for next year. We request that those who are interested in a section office submit their name, office sought, and qualifications to the Committee Chair, Dr. Fred Chichester, by mail at

56 Gordonhurst Ave
Upper Montclair, NJ 07043

For further information, you may telephone him at (973) 744-7340 between the hours of 8:00 AM and 9:00 PM.

Conference Rooms Needed!

The North Jersey Section (Education Committee) is looking for conference room facilities to hold their training seminars. The seminars are being held on one weeknight from 6:30 PM to 9:00 PM. In return for providing the conference facility for free, the organization can get free registration up to three members in the course/seminar. Please contact Bhanu Chivakula, Education Committee Chairman, at b.chivakula@computer.org for suggestions or discussions, if interested.

NEWSLETTER STAFF

Editor .... Keith Saracinello
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k.saracinello@ieee.org (908) 791-4067

Deadline for receipt of material is the 1st of the month preceding the month of publication. All communications concerning editorial and business matters, including advertising, should be sent to the Business Manager via e-mail at *k.saracinello@ieee.org* or to *The IEEE Newsletter, c/o Keith Saracinello, 25 Messenger Ln, Ringoes, NJ 08551*, (908) 791-4067.

IEEE NJ SECTION HOME PAGE
http://web.njit.edu/~ieeenj/
IEEE NJ SECTION NEWSLETTER HOME PAGE
http://web.njit.edu/~ieeenj/NEWSLETTER.html

REPORT ADDRESS CHANGES TO:
IEEE Service Center, 445 Hoes Lane, P.O. Box 1331, Piscataway, NJ 08855-1331, (732) 981-0060. It is not necessary to inform the North Jersey Section when you change your mailing address. "The IEEE Newsletter" and other section mailings use a list provided by IEEE's national headquarters.

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Dr. Richard Snyder (r.snyder@ieee.org)

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 Dr. Sanghoon Shin at (973) 492-1207 Ext. 22, s.shin@ieee.org.

VTS Chapter:
GPS Applications for CDMA Digital Cellular Technology

On Thursday, September 9, 2004 the Vehicular Technology Society will host a presentation entitled "GPS Applications for CDMA Digital Cellular Technology" by Charles Meyer.

About the Talk

The Global Positioning System (GPS) has become an international resource with many civilian applications. Although used primarily to determine precise position information, it is also used in many civilian applications for precise frequency control, time transfer and time synchronization. CDMA digital cellular technology is an example where GPS is critically used in this way. Additionally, some wireless emergency 911 services have recently begun to use mobile assisted GPS to locate mobile users. This presentation explains some of the fundamentals of GPS and how it has become a critical resource to the wireless telecommunications industry.

About the Speaker

Charles J. (Charlie) Meyer is a Research and Development Member of the Technical Staff at Lucent Technologies Bell Laboratories and a Senior member of the IEEE. He has worked at Lucent on CDMA digital cellular and GPS technologies for 10 years and has been awarded two US patents. Prior to Lucent, he worked on HDTV at the Advanced Television Test Center (ATTC), and Boonton Electronics. He has presented papers on Peak Power Measurements and Digital Communications at the Wireless Symposium, the National Association of Broadcasters (NAB), and the IEEE Broadcast Technology Symposium.

All Welcome!

Free admission. You do not have to be a member of IEEE to attend. Pre-registration is requested. Contact Arthur Greenberg at (973) 386-6673 (ahg1@lucent.com) for reservations.

Time: 7:00 PM, Thursday, September 9, 2004.
Place: Lucent Technologies, 67 Whippany Rd, Whippany, NJ 07981.
Information: Arthur Greenberg (973) 386-6673 (ahg1@lucent.com).

VTS Chapter:
An Introduction to CDMA 2000 1x-EV-DO

On Thursday, September 30, 2004 the Vehicular Technology Society will host a presentation entitled "An Introduction to CDMA 2000 1x-EV-DO" by Gabriela Abramovici.

About the Talk

1xEV-DO is a CDMA2000 technology that provides wireless subscribers with high speed data access. CDMA2000 1xEV-DO is "data optimized" and it is an approved 3G standard already deployed internationally and in the US. The talk will explain the basics of the 1xEV-DO technology, its evolution plans and the integration with the Wireless IP networks.

About the Speaker

Gabriela Abramovici is a Member of Technical Staff at Lucent Technologies Wireless System Engineering organization in Whippany, NJ. She has an MSEE from the Bucharest Technical Institute and had been with AT&T/Lucent Technologies since 1985 working in 5ESS switching and wireless access technologies. Gabriela had been involved in developing the cdma2000 standards and Lucent products for both 3G-1x and 1xEV-DO technologies.

All Welcome!

Free admission. You do not have to be a member of IEEE to attend. Pre-registration is requested. Contact Stephen Wilkowski at (973) 386-6487 (swilkowski@lucent.com) or Arthur Greenberg at (973) 386-6673 (ahg1@lucent.com) for reservations or directions.

Time: 7:00 PM, Thursday, September 30, 2004.
Place: Lucent Technologies, 67 Whippany Rd, Whippany, NJ 07981.
Information: Stephen Wilkowski (973) 386-6487 (swilkowski@lucent.com) or Arthur Greenberg (973) 386-6673 (ahg1@lucent.com).

IEEE North Jersey Section Activities
September 2004

Sept. 1 – "NJ Section Executive Committee Meeting" - 7:00 PM, ITT, 100 Kingsland Rd, Clifton, NJ. Dr. Sanghoon Shin at (973) 492-1207 Ext. 22 or s.shin@ieee.org.

Sep. 8 – "The Legislative Side of The Engineers' Career - What the Heck Is Congress Thinking?" - NJ PACE/GOLD/SAC, 6:30 – 9:00 PM, Clifton Memorial Library, 292 Piaget Ave, Clifton, NJ. Paul Ward (973) 790-1625 (PWard1130@aol.com) or Richard F. Tax (201) 664-6954 (rtax@bellatlantic.net).

Sep. 9 – "GPS Applications for CDMA Digital Cellular Technology" - NJ VTS Chapter, 7:00 PM, Lucent Technologies, 67 Whippany Rd, Whippany, NJ. Arthur Greenburg (973) 386-6673 (ahg1@lucent.com).

Sept. 10-11 – "5th Topical Meeting on Silicon Monolithic Integrated Circuits in RF Systems" – IEEE MTT-S, Georgia Tech, Atlanta, GA. http://www.emarket.gatech.edu/silicon.

Sept. 19-22 – "IEEE International Symposium on Electrical Insulation" – IEEE Dielectrics and Electrical Insulation Society, Indiana Convention Center, Indianapolis, Indiana. http://www.deis.nrc.ca/isei2004.htm.

Sep. 21 – "Adaptive Product Management" - NJ Computer Chapter, 7:00 PM (pre-meeting buffet at 6:00 PM), Lucent Technologies, 67 Whippany Rd, Room 3C-210, Whippany, NJ. Seth Jakel (973) 731-1902, (sgjakel@comcast.net), Vivek Shaiva (908) 229-6125 (vshaiva@computer.org), or Arthur Greenburg (973) 386-6673 (ahg1@lucent.com).

Sep. 22-Dec. 1 – **"**Project Management" – North Jersey Section, North Jersey Section, Wednesday Evenings, 10 sessions, 6:30-9:00 PM, NJ International Bulk Mail Center, 80 County Rd, Class Room #2, 3rd Floor, Jersey City, NJ. Bhanu Chivakula (b.chivakula@computer.org).

Sep. 23 – "Insurance and the Independent Consultant" - NJ Consultants' Network, 7:30 PM, Aeroflex/KDI-Integrated Products, 60 S. Jefferson Rd, Whippany, NJ. Robert Walker (973) 728-0344 or www.TechnologyOnTap.org.

Sep. 26 – "North Jersey Section 50th Anniversary Spirit of NJ Harbor Cruise" – NJ Section, 7:30 PM, Port Imperial Marina, Pershing Circle, Weehawken, NJ. Howard Leach (973) 540-1283 (h.leach@ieee.org).

Sep. 27-Dec. 6 – **"**Advanced Java Programming" – North Jersey Section, North Jersey Section, Monday Evenings, 10 sessions, 6:30-9:00 PM, NJ International Bulk Mail Center, 80 County Rd, Class Room #2, 3rd Floor, Jersey City, NJ. Bhanu Chivakula (b.chivakula@computer.org).

Sep. 29-Oct. 1 – **"**North East Sustainable Energy Association Conference (NESEA)" – North Jersey Section, Trenton, NJ. IEEE members are needed to meet with their state legislatures at a Reception on Thursday evening, September 30. Russell T. Harrison, Legislative Representative - Grassroots Affairs, IEEE-USA (r.t.harrison@ieee.org), (202) 530-8326. Keep alert for further E-Mail information.

Sep. 30 – "An Introduction to CDMA 2000 1x-EV-DO" - NJ VTS Chapter, 7:00 PM, Lucent Technologies, 67 Whippany Rd, Whippany, NJ. Stephen Wilkowski (973) 386-6487 (swilkowski@lucent.com) or Arthur Greenberg (973) 386-6673 (ahg1@lucent.com).

Upcoming Meetings

Oct. 6 – "NJ Section Executive Committee Meeting" - 7:00 PM, ITT, 100 Kingsland Rd, Clifton, NJ. Dr. Sanghoon Shin at (973) 492-1207 Ext. 22 or s.shin@ieee.org.

Oct. 7 – "2004 MTT/AP Symposium and Mini-Show" – MTT-S/AP-S Chapter, 9:30 AM - 5:30 PM, Prime Hotel & Suites (formerly Radisson Hotel Fairfield), 690 Route 46 East, Fairfield, NJ. Kirit Dixit (201) 669-7599, Willie Schmidt (973) 492-0371, Har Dayal (973) 633-4618, or George Kannell (973) 386-4170.

Oct. 19&20 – "IEEE Lightwave Technologies in Instrumentation & Measurement Conference" – IEEE METSAC, IBM Palisades Executive Conference Center in Palisades, NY. http://www.ewh.ieee.org/r1/metsac/LTWV.htm.

Oct. 22 – "The 2002 National Electric Code Seminar" - NJ IAS/PES Chapters, 9:00AM – 12:45 PM, Punch Bowl Room at Jersey Central Power and Light, 300 Madison Ave, Morristown, NJ 07962.

Oct. 28 – "Thermal Loading in Electronic Devices and PCs" - NJ Consultants' Network, 7:30 PM, Aeroflex/KDI-Integrated Products, 60 S. Jefferson Rd, Whippany, NJ. Robert Walker (973) 728-0344 or www.TechnologyOnTap.org.

Fall 2004 – "Introduction to .NET and C#" - North Jersey Section, 1 Day Course, Time, Date and Location TBA. Bhanu Chivakula (b.chivakula@computer.org).

Fall 2004 – "Object-Oriented Design Training" - North Jersey Section, 1 Day Course, Time, Date and Location TBA. Bhanu Chivakula (b.chivakula@computer.org).

Members and Non-Members Welcome
PLEASE POST

The Legislative Side of The Engineers' Career - What the Heck Is Congress Thinking?

On Wednesday, September 8, 2004, the North Jersey Section PACE/GOLD/Student Activities Committee will meet to discuss Congress. IEEE-USA is coming to New Jersey. Russell T. Harrison, IEEE-USA Legislative Representative is up from Washington to be our guest speaker.

About the Talk

What the Heck is Congress Thinking?

IEEE-USA's Washington Lobbyists Russ Harrison will lead the discussion on Congress. He'll explain what's going on in Congress today, and what engineers should expect in 2005. In particular, he will focus on H-1B visas, immigration and other jobs issues.

The business community is gearing up for a major effort to increase the number of H-1B visas next year. IEEE-USA is getting ready to fight back. Attend this meeting and see how, and what the Section and individual engineers can do to help.

About the Speaker

Russell Harrison is a veteran lobbyist with more than 9 years of experience influencing legislation in Washington.

He is the Legislative Representative for Grassroots Activities for IEEE-USA and has spoken at the PACE workshop, focusing on government affairs and activities that PACE committees can organize.

In this position, he is responsible for helping Sections and Members of IEEE-USA interact with, and ultimately influence elected officials.

Prior to IEEE-USA, Russell directed grassroots programs at the Institute of Scrap Recycling Industries and the American Iron and Steel Institute. In these positions he also raised over $300,000 in campaign contributions through the associations' political action committees. He has also represented the recycling and steel industries on Capitol Hill and in state capitols on a variety of issues as a professional lobbyist.

Russ is presently working with the Seattle, San Francisco and New Jersey Section PACE committees on government relations. (See Calendar for September events)

Russell has a BA in Political Science, with minors in History and Communication, from Allegheny College, and a Masters in Public Policy from the University of Maryland.

All Welcome!

Guests, members and students from other professional societies and engineering disciplines are always welcome. We now include members from IEEE, ASME and AEA. For more information about these groups see:

www.aea.org
www.asme.org/sections/northjersey
www.ieeeusa.org
web.njit.edu/~ieeenj/

Time: 6:30 to 9:00 PM, Wednesday, September 8, 2004. Free refreshments will be served.
Place: Clifton Memorial Library, 292 Piaget Ave, Clifton, NJ, (973) 772-5500.
Information: Paul Ward, (973) 790-1625 (PWard1130@aol.com), Richard F. Tax, (201) 664-6954 (rtax@AEA.org).

Immigrant Worker Debate Remains a Hot Topic

The refueled debate over immigration has some thinking that corporations may press Congress for another H-1B increase. With the H-1B visa limit now set at 65,000, concern is growing about companies that seek talent from other countries misusing the L-1 visa program to make up for the smaller H-1B pool. Professional organizations and interest groups are divided on the visa caps issue.

http://www.todaysengineer.org/mar04/debate.asp

U.S. Lifts Restrictions on IEEE Publishing

The U.S. Department of the Treasury's Office of Foreign Assets Control (OFAC) ruled on 2 April that the IEEE's publishing process is exempt from OFAC regulations and licensing requirements for scholarly papers submitted by authors from Cuba, Iran, Libya, and Sudan. For more information about the ruling, visit

http://www.ieee.org/portal/index.jsp?pageID=corp_level1&path=newsinfo&file=OFACruling.xml&xsl=generic.xsl

Insurance and the Independent Consultant

On Thursday, September 23, 2004, the IEEE Consultants' Network of Northern NJ (CNNNJ) will host a talk on "Insurance and the Independent Consultant."

About the Talk

Operating without a corporate or employer's umbrella, independent consultants need to understand well the available options, particularly insurance options, to secure their business and personal assets and provide for their healthcare. A panel of engineering consultants and representatives from the insurance industry will discuss critical business, liability, and health concerns and necessary insurance protection from the viewpoint of the independent consultant. The discussion will include:

↳ Which consulting businesses need insurance?
↳ What kinds of insurance do I need for my business?
↳ What options are available for
  • Business property insurance?
  • Business liability insurance?
  • Health insurance?
↳ Where can I find group coverage?

The panel will take questions from the audience.

About the Panel

Engineers from the Consultants Network of Northern NJ with successful consulting businesses will speak on their experiences in purchasing and using insurance. Representatives from insurance firms will explain the insurance options available in today's market.

All Welcome!

Everyone welcome. No registration needed. Free admission.

About the Consultants' Network

Founded in 1992, the IEEE Consultants Network of Northern NJ encourages and promotes the use of independent technical consultants by business and industry.

Time: 7:30 PM, Thursday, September 23, 2004.
Place: Aeroflex/KDI-Integrated Products, 60 S. Jefferson Rd, Whippany, NJ. (Entrance at rear of building)
Information: For directions and up-to-date meeting status, call Robert Walker (973) 728-0344 or visit our website at www.TechnologyOnTap.org. To download a map to KDI, go to: http://www.mcekdi-integrated.com/directions.htm.

NJ Consultants' Network:

Thermal Loading in Electronic Devices and PCs

On Thursday, October 28, 2004, the IEEE Consultants' Network of Northern NJ (CNNNJ) will host a talk on "Thermal Loading in Electronic Devices and PCs." The scheduled speakers are Peter K. Schutz, P.E., and Chris Mesibov.

About the Talk

Thermal loads in electronic devices, including PCs, can cause unexpected problems for consultants. Two veteran members of the IEEE Consultants Network of Northern NJ will explain the effects of thermal loading and proper design techniques.

Chris Mesibov will discuss thermal management concerns and techniques for PCs, including temperature monitoring, vulnerable and underrated PC components, airflow control, and dissipation products.

Peter Schutz will address general thermal management design issues in electronic products, including types of cooling, knowing which type is being used and the importance of air flow.

About the Speakers

Peter K. Schutz, P.E. has been developing new products since 1985. A mechanical engineer and specialist in mechanical components and systems, his business includes thermal design and analysis and packaging of electronics. Peter is Vice Chairman of the Consultants' Network.

Chris Mesibov specializes in Cypress PSoC design, RF testing, programming, and automated test equipment design; embedded and power systems. He has learned about thermal problems in PCs the hard way.

All Welcome!

Everyone welcome. No registration needed. Free admission.

About the Consultants' Network

Founded in 1992, the IEEE Consultants Network of Northern NJ encourages and promotes the use of independent technical consultants by business and industry.

Time: 7:30 PM, Thursday, October 28, 2004.
Place: Aeroflex/KDI-Integrated Products, 60 S. Jefferson Rd, Whippany, NJ. (Entrance at rear of building)
Information: For directions and up-to-date meeting status, call Robert Walker (973) 728-0344 or visit our website at www.TechnologyOnTap.org. To download a map to KDI, go to: http://www.mcekdi-integrated.com/directions.htm.

2004-2005 Student Activities Kickoff

Welcome back to the beginning of a new year of student activities for the North Jersey Section. This year promises to be filled with new activities and events. We hope you and your student branches will be participating in all of these events throughout the 2004-2005 academic year. Also since the year is just getting started, it is a good time for a refresher on what your branch must be doing to be recognized by the IEEE. Information about IEEE, student branch bylaws and forms to fill out is available on the website given below.

To start off with, if you have not had elections yet, it would be a good idea to hold them and report to IEEE with the officer election form. Also coming up is a leadership workshop that new (or potentially new) officers can attend to get essential training on running a branch. Your branch should fill out an annual plan of events in the fall and an annual report in the spring. Part of the reporting is on membership which qualifies the branch for per member rebates. Its free money for turning in the right forms by the right time. Speaking of money, your branch should also plan fundraisers for basic expenses. If you really want to get started right, host one of these leadership workshops to learn the basics. Contact the organizer below.

So what's happening this year? Lots of things! Details of the event's exact location, date, time, directions, and registration will become available on the SAC website below. Free Student Leadership Training Workshops in October, and Professional Skills Development Workshop in November. Instead of just holding single workshops, multiple individual workshops will be held at each university who wishes to receive formal training at their local branch for this and upcoming year's students. This holds true for both the leadership and professional skills training. If you would like to host these events then contact the organizer below. The annual Paper Presentation Contest is also planned for mid February/early March. This is a chance for students to showcase their hard work on different projects worked on during the year. It is open to both graduate and undergraduate students.

Last, but not least, the SAC and GOLD committees are looking for volunteers who might be graduating soon and would like to help out in the North Jersey Section. To find out how you can help, contact Amit Patel at a "DOT" j "DOT" patel "AT" ieee "DOT" org and visit the new website at http://ewh.ieee.org/r1/north_jersey/sac

You will find the latest information updated there or you can also join the mailing list to get regular reminders of different events.

IEEE-USA Testifies for Balance in Copyright Policy

WASHINGTON (22 July 2004) - Copyright owners should not be permitted to restrict the development of technology having non-copyright-infringing uses, unless the developer actively and independently induces a copyright infringement, Andrew C. Greenberg testified before the Senate Judiciary Committee today.

Greenberg, vice-chair of the IEEE-USA Intellectual Property Committee (IPC) and an attorney with Carlton Fields, P.A. of Tampa, Fla., testified on the Inducing Infringement of Copyrights Act of 2004 (S.2560). IEEE-USA believes that neither the bill nor the status quo adequately balances the interests of those who create digital copyrighted content and those who create the technology to deliver, or otherwise make use of that content.

"We are mindful that new technologies may be misused to infringe a copyrighted work, and some will promote that to their own benefit," Greenberg testified. "At the same time, we are concerned that the Copyright Act must not be changed in ways that would inhibit research and development of novel technologies before their social value can be demonstrated."

IEEE-USA believes that it should not be an indirect infringement of a copyright to manufacture, distribute, or provide a hardware or software product or process capable of substantial non-infringing use, unless the manufacturer, distributor or maker actively induces the infringement of a copyrighted work by another.

"The challenge facing the Senate is to find a solution that allows the true copyright infringers to be dealt with in the legal system, while not restricting leading-edge technologies that might be used in making copies, both infringing and non-infringing," said Glenn Tenney, chair of IEEE-USA's IPC. "At the same time, non-infringing copying must be allowed to continue."

IEEE-USA, in the appendix of its written testimony, proposes substitute language for S.2560 to achieve these goals. For more information, go to http://www.ieeeusa.org/forum/policy/2004/072204.html.

President's Column

John W. Steadman
2004 IEEE-USA President

IEEE-USA recently joined with leading scientific, engineering and higher-education organizations in a statement to federal policymakers urging them to address problems with the nation's visa-processing system that are adversely affecting international scientific and technical collaborations.

The statement, in part, said: "We strongly support the federal government's efforts to establish new visa policies and procedures to bolster security; however, we believe that some of the new procedures and policies, along with a lack of sufficient resources, have made the visa-issuance process inefficient, lengthy and opaque. We are deeply concerned that this has led to a number of unintended consequences detrimental to science, higher education and the nation."

With heightened security following 9/11, the IEEE (and IEEE-USA) began receiving increased requests from non-U.S. IEEE members for assistance with problems traveling to and from the United States, including:

- Delays in visa processing that make it difficult for IEEE members abroad to participate in U.S.-based conferences.
- Denial of entry visas on various discretionary grounds, often without explanation or opportunity to appeal.
- Decisions by student members in the U.S. not to travel abroad to visit family or participate in international technical conferences because of concerns they might not be allowed to return to school.

These situations are affecting the IEEE's ability to function as a volunteer organization. They have created an incentive to move IEEE technical conferences and standards development activities out of the United States to facilitate international participation, with lost benefits to the U.S. economy. And most importantly, they are contributing to the increasing perception that our nation is a less-attractive destination for scientific and engineering training and research collaborations. This has negative implications for our country and its ability to remain technologically competitive in a global economy.

The General Accounting Office (GAO), at the request of Congress, investigated these problems and released a report earlier this year: http://www.gao.gov/new.items/d04371. pdf. The GAO confirmed significant processing delays because of various problems, including a lack of computer-system interoperability used by different federal agencies in the screening process. The GAO report, highlighted in a February hearing of the House Science Committee, recommended that "the Secretary of State, in coordination with the Director of the FBI and the Secretary of Homeland Security, develop and implement a plan to improve the security check process."

We hope these improvements will help increase our homeland security by eliminating incompatible systems and streamlining processes that consume limited resources without adding a discernible security benefit, and by providing visa screeners with the information they need on a timely basis to make informed judgments about scientific and technical visitors. In short, a more efficient system is a more secure system.

One concept not addressed in the statement, but now being discussed in Washington, is creation of a new special visa for foreign scientists and engineers of stature in the research community, who are employed in well-established international research activities, and who need to make multiple visits to the United States for that purpose.

A number of our members have asked me how this statement squares with IEEE-USA's position on the H-1B non-immigrant visa, which calls for limits and safeguards to ensure that temporary workers are paid prevailing wages and not used to displace U.S. high-tech workers. We view these as two distinct issues. The visa-processing statement relates to improvements needed in the systems for screening of non-immigrant scientific and technical visitors to the United States, such as non-U.S. members seeking to attend U.S.-based IEEE technical conferences. It would not affect the issuance of H-1B visas, or expand the number of H-1B workers permitted to enter the country for employment. You can read the multi-society statement on-line at: http://www.ieeeusa.org/forum/POLICY/2004/051204.pdf.

We welcome your feedback on the statement and on other proposals such as special visas for "trusted" scholars. We'd also like to hear about your own visa experiences as you travel in the U.S. and abroad. Send your comments to president@ieeeusa.org.

High-Tech Employment Shrinks in Second Quarter, Despite Positive Signs on Unemployment Rates

WASHINGTON (26 July 2004) - The number of employed computer professionals dropped from the first to second quarters, according to data compiled by the Department of Labor's Bureau of Labor Statistics (BLS). At the same time, high-tech unemployment rates also fell.

BLS reported a decline of 131,000 employed computer software engineers in the second quarter vs. the first quarter (725,000 vs. 856,000). Employed computer scientists and systems analysts have fallen 51,000 (621,000 vs. 672,000) during the same period, while computer hardware engineers dropped 3,000 (83,000 vs. 86,000). Computer programmers experienced a fall of 16,000 (575,000 vs. 591,000).

Bucking the trend, the number of employed electrical and electronics engineers (EEs) rose by 24,000 from the first to second quarters (351,000 vs. 327,000). The increase, however, is still below the 363,000 quarterly average in 2003.

"The EE employment figure is encouraging, and we're interested to see if the trend continues," IEEE-USA President John Steadman said. "But we're most concerned with our shrinking high-tech workforce, much of which is attributable to the offshoring of high-tech jobs."

BLS reported the EE unemployment rate, which stood at 5.3 percent in the first quarter, was 0.8 percent in the second quarter. While the increase in EE employment would indicate a falling unemployment rate, sampling errors could account for the substantial quarterly decrease, according to statistical consultant Richard Ellis of Ellis Research Services. A rate for computer hardware engineers wasn't reported because no one in this job classification among the survey population claimed to be unemployed last quarter.

The unemployment rate for computer software engineers fell from 3.3 percent in the first quarter to 2.9 percent in the second. For computer scientists and system analysts, the rate went from 6.7 percent to 4.0 percent; for computer programmers it fell from 9.5 percent to 5.7 percent.

"Sadly, part of the unemployment improvements might be because some technical professionals have become discouraged and are leaving the field," Steadman said.

IEEE North Jersey Section Newsletter Advertising

The "NEWSLETTER" is the non-profit professional publication of the North Jersey Section of the Institute of Electrical and Electronics Engineers, Inc.

Published monthly except June (electronic only) and July, it is distributed to approximately 5,000 qualified members of the section.

Editorial content is pertinent and timely. It contains current information and details about special meetings, field trips, and seminars scheduled during the month and for future dates.

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1/6 Page	175	150	125
Classified and Per Inch	30	25	25

Classified job advertisements are welcome!

THE INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS, INC.

IEEE NORTH JERSEY SECTION
MTT-Society and AP-Society Joint Chapter

PRESENT

19TH ANNUAL SYMPOSIUM AND MINI-SHOW

FOCUS: CURRENT TOPICS IN RF AND MICROWAVE COMMUNICATION

Thursday, October 7, 2004
Prime Hotel & Suites (formerly Radisson Hotel Fairfield)
690 Route 46 East, Fairfield NJ   (973) 227-9200

SCHEDULE OF EVENTS

- **9:30 AM TO 6:00 PM - MINI SHOW FEATURING LATEST PRODUCTS (Approx. 30-40 Exhibitors)**
- **9:00 AM TO 5:30 PM - TECHNICAL SESSIONS**
- **10–12 - LECTURES FEATURING SPEAKERS FROM LEADING COMPANIES WITH EMPHASIS ON MILTARY ELECTRONICS, WIRELESS TECHNOLOGIES AND MICROWAVE COMMUNICATIONS.**

Details of the schedule, speakers and topics can also be found at the IEEE North Jersey Section Homepage:

http://www-ec.njit.edu/~ieeenj/NEWSLETTER.html

For further information contact Kirit Dixit (201-669-7599),
Willie Schmidt (973-492-0371), Har Dayal (973-633-4618), or
George Kannell (973-386-4170).

THERE IS NO CHARGE TO ATTEND THE SYMPOSIUM OR SHOW

North Jersey Section 50th Anniversary Spirit of NJ Harbor Cruise

To celebrate the 50th Anniversary of the North Jersey Section of the IEEE, the Executive Committee has agreed to provide a $25.00 subsidy per ticket for members and one significant other for the Spirit of New Jersey Harbor Cruise on Sunday, September 26th.

The Spirit of New Jersey leaves Sunday evenings at 7:30 PM on a three hour dinner cruise from Port Imperial Marina, Pershing Circle, Weehawken, NJ. It travels down the Hudson past the Statue of Liberty, up the East River under the Brooklyn Bridge, and then returns. The cruise features live entertainment, a DJ, and an all-you-can-eat buffet that includes beef, poultry and seafood with fresh vegetables, salad, rolls with butter, and dessert. For more information, refer to: http://www.spiritcitycruises.com/NewJersey/index.html.

Boarding starts one hour before the 7:30 PM cruise. Directions to Port Imperial are available on their web site at: http://www.portimperial.com/directions.htm. Currently, parking fees are $8.00 per vehicle.

Two tickets can be purchased by each IEEE member of the North Jersey Section who would like to attend up to 50 tickets at this time. To purchase your ticket(s), fill out the following application. The current full price is $64.00 per person. You can purchase them for $39.00 each. The Section tickets will be picked up and passed out during September 26th boarding.

50th North Jersey Section Anniversary Cruise Application for tickets:

Name(s):_____

IEEE Membership number:_____

Address with zip:_____

_____

Phone: _____   Email for ticket confirmation: _____

Number of tickets: _____   Check amount either $39.00 (1) or $78.00 (2): _____

Please make checks payable to: <u>IEEE North Jersey Section</u>

Note, no refunds unless your tickets are purchased by other members.

Applications must be received no later than Thursday, September 16th.

Send completed application to
    Howard Leach
    11 Beech Drive
    Morris Plains, NJ 07950

For additional information, contact Howard Leach at h.leach@ieee.org or (973) 540-1283.

The 2002 National Electric Code Seminar

The PES and IAS Chapters will sponsor a one-day seminar providing an overview and discussion of recent changes incorporated in the **2002 NATIONAL ELECTRICAL CODE (NEC).** The session will be held on Friday, October 22nd, from 9:00 AM – 12:45 PM, in the Punch Bowl Room at Jersey Central Power and Light, 300 Madison Ave Morristown, NJ 07962. The instructor is Won Kim, PE. Participants are encouraged to bring their NEC book to the seminar. It can be ordered at www.NFPAcatalog.org. (Request the current NEC 2002 edition)

About the Seminar

The National Electrical Code is revised every three years by National Fire Protection Association as NFPA 70, and is adopted by most of the States as the State's Electrical Code. The purpose of the Code is the practical safeguarding of persons and property from hazards arising from the use of electricity. The seminar will cover the major changes in the code, and the topics will include the following:

- Relationship to Uniform Construction Code of New Jersey and Electrical Safety Code (NESC) published by IEEE
- Enforcement of the Code by the Department of Community Affairs (DCA) and the municipalities
- Relationship between electrical engineers/designers, electrical contractors and electrical inspectors
- Wiring methods, materials and protection
- Equipment for general use
- Special occupancies and conditions
- Communications Systems

WHERE:	Punch Bowl Room at Jersey Central Power and Light, 300 Madison Ave Morristown, NJ 07962. Directions: Route 287 to Route 124 (Madison Ave Exit). Head toward Madison. Jersey Central building is on the left about 1.5 miles from the exit.
WHEN:	Friday, October 22nd, 9:00 AM – 12:45 PM
COST:	Non-IEEE members $100; IEEE (& affiliate) members $75; IEEE GOLD (Graduates of the Last Decade) Members $50; IEEE Student Members $25; IEEE Life Members – Free. All Registrations after Oct. 15 must include an additional late fee of $25.
CONTACT:	Kenneth Oexle (973) 386-1156

Registration - North Jersey IEEE PES/IAS NEC Seminar, Friday, Oct. 22, 2004

Name _____

Address _____

Phone_____ IEEE #_____ Payment Enclosed_____
                                                          Add $25 late fee after Oct 15

Mail to:

Kenneth Oexle
11 Deerfield Road
Whippany, NJ 07981

IEEE North Jersey Section Course
Project Management

Wednesday Evenings, September 22, 2004 through December 1, 2004 (No class on November 24)
10 weekly classes (September 22, 29 ,October 6, 13, 20, 27, November 3, 10, 17, December 1, 2004)
NJ International Bulk Mail Center, 80 County Rd, Class Room #2, 3rd Floor, Jersey City, NJ
(Checks should not be mailed to this address)

The North Jersey Section IEEE is offering an evening course entitled "Project Management". Dice.com lists 1500+ Project related jobs in the New York tri-state area daily! This course will help you to break down a master project into manageable tasks, pinpoint possible solutions, and provide information to keep the project under control. Using Microsoft Project 2003 software, you will learn to accomplish various project plans. In addition, it will greatly enhance your business, communications and interpersonal skills.

The IEEE certificate of completion will be given to you when you complete the course. You may wish to take two Certification exams, one in *Project Management* administered by Project Management Institute and the other in *IT Project+* by CompTIA Inc.

Instructor: Donald Hsu, Ph.D., has been a corporate manager for 11 years and is an experienced trainer. Since 1999, he has trained 230+ people in *IT Project+, MS Project 2003, and Project Management* courses in six organizations.

TOPICS

1. Explain the need for a project manager
2. Define SOW, PERT, GANTT, CPM, and Scope of the project
3. Identify the team members, resources and plan for the strategy
4. Calculate schedule, budget variances, and monitor project progress
5. Manage changes, estimates, and communications
6. Set a baseline, import tasks from MS Excel, export Project files to MS Word
7. Create and modify custom reports, templates and combination views
8. Share resources and create a master plan loaded to Project Server
9. Approve updates and conclude a project plan
10. Analyze Global E-Commerce and present student Projects

Class size will be limited to a maximum of 25 with a minimum of 15. Early registration is recommended. Phone reservations will NOT be accepted. Reservations accepted after September 10, 2004 will require a late fee of $25. No reservations will be accepted after September 15, 2004.

WHERE: NJ International Bulk Mail Center, 80 County Rd, Class Room #2, 3rd Floor, Jersey City, NJ. (Checks **should not** be mailed to this address)

WHEN: 10 Wednesdays, September 22, 29, October 6, 13, 20, 27, November 3, 10, 17, December 1, 2004, 6:30-9:00 PM.

COST: With textbook or notes: IEEE (& affiliate) members $375; Non-IEEE members $475.

CONTACT: Bhanu Chivakula -email b.chivakula@computer.org

REGISTRATION: Project Management

Please send checks payable to "North Jersey Section IEEE" with filled in registration forms to

Bhanu Chivakula, Chair - Education Committee, IEEE North Jersey Section, 19 Prestwick Way, Edison, NJ 08820

Name: / Mr. / Mrs. / Miss / Ms. / _____   _____

☐ Non-member   ✆email address✒

☐ 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**

Registration status will be mailed after September 15, 2004. Phone inquiries concerning registration will NOT be honored. In general, the effective date of the application corresponds to the date when BOTH a fully completed application/registration and payment are received.

☐ Tuition receipt will be mailed only if this box is checked   Signature:_____

IEEE North Jersey Section Course
Advanced Java Programming

Monday Evenings, September 27, 2004 through December 6, 2004
10 weekly classes (September 27, October 4, 11, 18, 25, November 1, 8, 15, 22, December 6, 2004 (No class on Nov. 29)
NJ International Bulk Mail Center, 80 County Rd, Class Room #2, 3rd Floor, Jersey City, NJ
(Checks should not be mailed to this address)

   The North Jersey Section IEEE offers an evening course titled "Advanced Java Programming". 2.5 million Java Programmers are currently working on all types of commercial projects in the world, ranging from cell phone/PDA, to UNIX server, to mainframe data-warehouses. This course covers various server side programming techniques. The prerequisite for this course is any programming language (Cobol, C, C++, Java, Visual Basic, etc).
   Instructor: Donald Hsu, Ph.D., has been a corporate manager for 11 years and is an experienced trainer. Since 1997, he has trained 250+ people in Java Programming and Advanced Java Programming courses in six organizations.

TOPICS

1. Explain the concept of Multithreading and Collections
2. Distinguish different types of Java Servlets and Networks
3. Define the use of Java Database Connectivity and Remote Method Invocation
4. Identify the details of Advanced Swing and Advanced AWT
5. Construct Enterprise Java Beans and Cold Fusion
6. Analyze Firewall Security and Internationalization issues
7. Contrast ASP vs JSP, Corba vs Dcom, Jini, Soap, J2ME
8. Build XML, Apache and advanced Multi-tier Web Servers
9. Employ SunOne Studio, IBM WebSphere, Bea WebLogic
10. Complete Server projects using development tools
11. Present real-world Server projects

Class size will be limited to a maximum of 25 with a minimum of 15. Early registration is recommended. Phone reservations will NOT be accepted. Reservations accepted after September 15, 2004 will require a late fee of $25. No reservations will be accepted after September 20, 2004.

WHERE: NJ International Bulk Mail Center, 80 County Rd, Class Room #2, 3rd Floor, Jersey City, NJ. (Checks **should not** be mailed to this address)
WHEN: 10 Mondays, September 27, October 4, 11, 18, 25, November 1, 8, 15, 22, December 6, 2004, 6:30-9:00 PM.
COST: With textbook or notes: IEEE (& affiliate) members $380; Non-IEEE members $450.
CONTACT: Bhanu Chivakula -email b.chivakula@computer.org

REGISTRATION: Advanced Java Programming

Please send checks payable to "North Jersey Section IEEE" with filled in registration forms to

Bhanu Chivakula, Chair - Education Committee, IEEE North Jersey Section, 19 Prestwick Way, Edison, NJ 08820

Name: / Mr. / Mrs. / Miss / Ms. / _____   _____

☐ Non-member   ✆email address✍

☐ 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**
Registration status will be mailed after September 20, 2004. Phone inquiries concerning registration will NOT be honored. In general, the effective date of the application corresponds to the date when BOTH a fully completed application/registration and payment are received.

☐ Tuition receipt will be mailed only if this box is checked   Signature:_____