

The



IEEE Newsletter

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

IEEE and North Jersey Section Going Web 2.0, Facebook & Linked-In

If you are reading this article, there is a good chance you are reading this either on a paper newsletter or on a static webpage. Some of that will be changing to provide the reader alternative channels of accessing important information.

This article tries to provide a brief introduction to RSS, Really Simple Syndication, which is the core technology behind Web 2.0 features, applications, and how IEEE is now using it.

There are many detailed descriptions of RSS and how it works (see Wikipedia for a good introduction to RSS and XML), but in the context of Web 2.0, it is an XML (eXtensible markup language) based push technology that allows for moving information from the content producer to the appropriate client software being used to aggregate data from many sources to present to the user.

Many people are already using such client software without actually knowing that it is RSS and XML driving it under the hood. For example, news portal sites like Yahoo utilize RSS, Google Reader is an aggregator that also collects subscribed feeds as diverse as news stories, daily blogs, to audio and video podcasts. Popular social networking sites like Facebook and Linked-In are also powered by this technology and push member's status changes and postings out to email, twitter and SMS.

So what does this have to do with the IEEE? One great example of how the IEEE currently uses Web 2.0 is the individualized myIEEE (<http://www.ieee.org/web/membership/myieee.html>) portal that every single member has as part of their membership. It allows for customization of products and services of interest to the member as well as notification of IEEE wide events of interest in different categories.

Additionally, a little over a year ago the IEEE introduced a new meeting and event announcement system which allows for publishing feeds of these events to the public. This data is then collected using the subscriber's favorite

No job? Take a hot course to get a job!

IEEE North Jersey Education Committee ran programming and management courses since 1993. 229 IEEE members and non-members completed these courses. Proven benefits: They got better jobs including one at Microsoft Corporation.

We need hot courses, instructors and classrooms. If you can teach a hot course (the course that people can get jobs), email your one-page abstract and your resume. If your NJ firm can provide a conference room, evening or Saturday morning, contact Donald Hsu, Chair, yanyou "AT" hotmail.com. Thank you and act NOW!

client aggregator software.

Many people make use of one or more of such technologies and can now integrate their access to local IEEE event notifications. Over the course of the next year the North Jersey Section will roll out all meeting and event notifications using RSS. You can begin to participate now using the following URL:

meetings.vtools.ieee.org/meetings/rss/1/NORTH%20JERSEY

Paste this address into your RSS reader or aggregator software of choice. You can even use Microsoft Outlook 2007 to collect notifications. Just go to the tools, account settings, RSS feeds tab and paste this URL into the dialog box.

Additionally, if you use Facebook or LinkedIn, the North Jersey Section now has a Facebook fan page that you can become a fan of and all these meeting postings will be notified via the fan page which you can join here:

www.facebook.com/pages/IEEE-North-Jersey-Section/

If you use LinkedIn, you can join the *IEEE North Jersey Section Group* to receive the same event notifications as well. Just go to

www.linkedin.com

and search for IEEE North Jersey Section under the groups menu.

Click through links for both the fan page and group will be available off the main North Jersey Section website at web.njit.edu/~ieeenj. As the process of rolling out better integrated Web 2.0 functionality continues via myIEEE and our Facebook fan page and Linked-In group, the updates will be publicized in future articles. For now, try out RSS feeds and our Fan Page and or Group to see how you can make better use of this information using your notification channel of choice.

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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>

REPORT ADDRESS CHANGES TO:

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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) 960-6796, rpepe "AT" ieee.org.

Unemployed? - Did you know?

Unemployed IEEE members are entitled to a 50% dues reduction

IEEE realizes that economic circumstances may impact some members' ability to pay the full amount of IEEE membership dues. For this reason, the following special circumstance categories have been established. Special circumstances are not available to Student members. Only one category may be claimed in any year.

IEEE offers the following special circumstances categories:

- ↳ Minimum Income ↳ Retired
- ↳ Unemployed ↳ Disabled

Minimum Income Provision: Applicants who certify that their prior year's income did not exceed US \$12,900 or equivalent are granted a 50% reduction in IEEE dues, regional assessment and dues for one IEEE Society and its optional publications. Please submit written certification with application and payment. Student members are NOT eligible.

Retired Provision: A retired member, not gainfully employed and not qualifying for Life Member Status, on attaining the age of 62 years, may apply for a 50% reduction in dues and assessments. An individual who qualifies for the IEEE Retired Member category may continue any and all Society memberships held for not less than the 5 prior years. Optional publication fees equal those established for Student members.

Unemployed Provision: A 50% reduction in membership dues, Society dues, other subscriptions and assessments are available to a member or applicant who informs the IEEE Operations Center Office that he/she: (1) has become involuntarily unemployed and is seeking reemployment, or (2) has become voluntarily unemployed for reasons of raising children. A statement of continued unemployment shall be provided with each annual dues payment. In the case of voluntary unemployment, the provisions of this Bylaw shall not exceed four years. The reduced payments may not be made in installments.

Permanently Disabled Provision: The IEEE membership dues and assessments, if any, shall be waived for those members who become permanently disabled. "Permanent disability" shall mean a medically determinable physical or mental impairment which (i) renders the individual incapable of performing any substantial gainful employment, (ii) can be expected to be of long-continued

and indefinite duration or result in death, and (iii) is evidenced by a certification to this effect by a doctor of medicine approved by the Executive Director. The Executive Director shall determine the date on which the permanent disability shall have occurred if such determination is necessary.

NJ Section PACE, GOLD:

Engineers Meet:

The Professional's View

On Wednesday, August 12, 2009 the North Jersey Section Professional Activities Committee along with Graduates of the Last Decade will host a meeting to discuss the Profession as viewed by attending Members.

About the Meeting

The meeting will focus on the status of our engineering profession from the viewpoint of Members attending the meeting. Subject will be itemized and sent on to the Presidents of IEEE and IEEE-USA.

We will also plan for future PACE meetings, subjects and guest speakers.

You are encouraged to attend, voice your opinion and invite your associates.

About the Speaker

We will not have a special guest speaker. Richard Tax and Paul Ward, PACE Chair and co-chair will host the meeting and collect the information from the floor.

All Welcome!

Members and students from all professional societies and engineering disciplines are welcome. We now have attendees from IEEE, ASME, NSPE, ASCE and AEA. For information about these groups see:

www.aea.org
www.ieeeusa.org/policy/care
www.ieeeusa.org
www.programmersguild.org
<http://web.njit.edu/~ieeenj/>
www.asme.org/sections/northjersey

CARE is the Congressional Advocacy Recruitment Effort CARE is a voluntary network of IEEE members who are interested in public policy. To help and for information go to www.ieeeusa.org/policy/care/.

Time: 6:30 PM to 9:00 PM, Wednesday, August 12, 2009. Refreshments will be served.

Place: Clifton Memorial Library, 292 Piaget Ave, Clifton, NJ, (973) 772-5500.

Information: Paul Ward, (973) 790-1625, PWARD1130 "AT" aol.com, Richard F. Tax, (201) 664-0803, rtax "AT" verizon.net.

IEEE North Jersey Section Activities

August 2009

Aug. 5 – “NJ Section Meeting”, 6:30 PM, “Executive Committee Meeting” - 7:00 PM, ITT, 77 River Rd, Clifton, NJ. Russell Pepe at rcpepe “AT” ieee.org.

Aug. 12 – “Engineers Meet: The Professional’s View”, NJ PACE, GOLD, 6:30 PM to 9:00 PM, Clifton Memorial Library, 292 Piaget Ave, Clifton, NJ. Paul Ward, (973) 790-1625, PWARD1130 “AT” aol.com, or Richard F. Tax, (201) 664-0803, rtax “AT” verizon.net.

Upcoming Meetings

Sep. 2 – “NJ Section Meeting”, 6:30 PM, “Executive Committee Meeting” - 7:00 PM, ITT, 77 River Rd, Clifton, NJ. Russell Pepe at rcpepe “AT” ieee.org.

Sep. 17 – “Nanowire Biosensors” by Professor Mark A. Reed, NJ EDS/C&S Chapters, 7:00 PM, New Jersey Institute of Technology (NJIT), Room 202, ECE Center (Intersection between Warren & Summit Streets), Newark, NJ. Dr. Richard Snyder (973) 492-1207 (RS Microwave), Dr. Edip Niver (973) 596-3542 (NJIT), or Dr. Durga Misra (973) 596-5739 (dmisra “AT” njit.edu).

Sep. 24 – “Digital Insecurity” by Arthur J. Hedge III, NJ Computer Society, 7:00 PM, Public Meeting Room, Morris County Library, 30 E. Hanover Ave, Whippany, NJ. Michael Malm (201) 355-6167, mmalm “AT” ieee.org, Seth Jakel (973) 731 1902, (973) 820-1865, sgjakel “AT” comcast.net or Howard Leach (973) 540-1283, hhleach “AT” ieee.org.

Oct. 1 – “2009 MTT/AP Symposium and Mini-Show” – MTT-S/AP-S Chapter, 9:00 AM - 4:30 PM, Hanover Manor, 16 Eagle Rock Avenue, E. Hanover, NJ. Kirit Dixit (201) 669-7599 (kdixit “AT” ieee.org), Art Greenberg (a.h.greenberg “AT” ieee.org), Har Dayal (973) 633-4618 (har.dayal “AT” baesystems.com), or George Kannell (973) 386-4170 (gkk “AT” gsinnovations.com).

Oct. 14 - Dec. 9 – “C# .NET Programming” by Donald Hsu, PhD, 6:30 PM to 9:00 PM, Advanced Technical Marketing, Suite 113, 1719 Route 10, Parsippany, NJ. Donald Hsu, yanyou “AT” hotmail.com.

Oct. 29 – “Life Grade Luncheon”, Hamilton Park Conference Center, Florham Park, NJ. Ken Oexle (973) 386-1156.

Members and Non-Members Welcome
PLEASE POST

News from IEEE-USA:

IEEE-USA and Small Business Administration Partner to Assist High-Tech Entrepreneurs

Washington (23 June 2009) - To assist high-tech entrepreneurs starting new businesses, IEEE-USA and the U.S. Small Business Administration have signed an agreement pledging mutual cooperation in promoting, strengthening and expanding small business development throughout the country.

According to IEEE-USA President Gordon Day, the agreement will benefit IEEE members who are starting their own technology-based businesses.

"The American high-tech industry was created by individuals who had the vision and courage to create new products, companies and even whole industries based on little more than ideas and hard work," Day said. "Big companies like HP and Apple started in garages. By partnering with SBA, we can help find and nurture America's next generation of advanced technology companies and business leaders."

Under the agreement, SBA will provide IEEE-USA with information about its programs and services, make available information about SBA's resource partners, provide speakers to participate in IEEE-USA events to discuss SBA financing, government contracting and other business topics, and invite IEEE members to attend local SBA-sponsored events and offer training at IEEE-USA-designated locations.

IEEE-USA will cooperate with SBA's resource partners -- Small Business Development Centers, Women's Business Centers and SCORE "Counselors to America's Small Business" -- to provide information to its members about business development services for small businesses, inform IEEE members of SBA's programs and services, provide speakers for SBA-sponsored events and share volunteer opportunities, such as SCORE counseling positions, with IEEE members.

"The SBA and IEEE-USA have joined together to help some of the nation's most innovative entrepreneurs start and grow their businesses," SBA Administrator Karen G. Mills said. "This cooperative agreement means that more technical businesses will be able to benefit from SBA programs, services and financial assistance as they create the jobs of the 21st century."

A signing ceremony at SBA headquarters in Washington was held on 18 June. Ana M. Ma., SBA's chief of

staff, represented SBA, and Day represented IEEE-USA.

Working through its Entrepreneurial Activities Committee, IEEE-USA has established an online Entrepreneurs Village, which provides resources promoting innovation and company growth, and links high-tech entrepreneurs with mentors and peers. See <http://www.ieeeusa.org/careers/entrepreneurs/>.

The SBA is an independent federal agency created in 1953 "to aid, counsel, assist and protect the interests of small business concerns, to preserve free competitive enterprise and to maintain and strengthen the overall economy of our nation." See www.sba.gov.

NJ EDS/C&S:

Nanowire Biosensors

On September 17, 2009, the IEEE NJ Section Electron Devices, Circuits and Systems Chapters together with the New Jersey Institute of Technology will host a talk on "Nanowire Biosensors." The speaker will be Distinguished Lecturer, Professor Mark A. Reed.

About the Talk

Nanoscale electronic devices have the potential to achieve exquisite sensitivity as sensors for the direct detection of molecular interactions, thereby decreasing diagnostics costs and enabling previously impossible sensing in disparate field environments. Semiconducting nanowire-field effect transistors (NW-FETs) hold particular promise, though contemporary NW approaches are inadequate for realistic applications. We present here a novel approach using complementary metal-oxide-semiconductor (CMOS) technology that has not only achieved unprecedented sensitivity, but simultaneously facilitates system-scale integration of nanosensors for the first time. This approach enables a wide range of label-free biochemical and macromolecule sensing applications, including cell type discrimination through the monitoring of live, stimulus-induced cellular response, and specific protein and complementary DNA recognition assays. An important achievement is the introduction of real-time, unlabeled detection capability, allowing for fundamental studies of cellular activation, and specific macromolecule interactions at femtomolar concentrations. Important aspects of microfluidic integration and Debye screening will be discussed, along with the demonstration of live cell peptide-specific immunoresponse.

About the Speaker

Professor Mark A. Reed received his PhD in Physics from Syracuse University

in 1983, after which he joined Texas Instruments. In 1990 Mark joined Yale University where he holds the Harold Hodgkinson Chair of Engineering and Applied Science, and is the Associate Director of the Yale Institute for Nanoscience and Quantum Engineering. His research activities have included the investigation of electronic transport in nanoscale and mesoscopic systems, artificially structured materials and devices, molecular scale electronic transport, plasmonic transport in nanostructures, and chem/bio nanosensors. Mark is the author of more than 180 professional publications and 6 books, has given 19 plenary and over 260 invited talks, and holds 25 U.S. and foreign patents on quantum effect, heterojunction, and molecular devices. He has been elected to the Connecticut Academy of Science and Engineering and Who's Who in the World. His awards include; Fortune Magazine "Most Promising Young Scientist" (1990), the Kilby Young Innovator Award (1994), the Fujitsu ISCS Quantum Device Award (2001), the Yale Science and Engineering Association Award for Advancement of Basic and Applied Science (2002), Fellow of the American Physical Society (2003), the IEEE Pioneer Award in Nanotechnology (2007), and Fellow of the Institute of Electrical and Electronics Engineers (2009).

All Welcome!

You do not have to be a member of the IEEE to attend.

Time: 7:00 PM, Thursday, September 17, 2009. Free buffet will begin at 6:15 PM.

Place: New Jersey Institute of Technology (NJIT), Room 202, ECE Center (Intersection between Warren & Summit Streets), Newark, NJ. Directions are available at <http://www.njit.edu/University/Directions.html>.

Information: Dr. Richard Snyder (973) 492-1207 (RS Microwave), Dr. Edip Niver (973) 596-3542 (NJIT), or Dr. Durga Misra (973) 596-5739 (dmisra "AT" njit.edu).

NJ Computer Society:

Digital Insecurity

On Thursday, September 24th, 2009, the IEEE North Jersey Section Computer Society Chapter will host a presentation entitled "Digital Insecurity" by Arthur J. Hedge III.

About the Talk

The amount of digital information is growing at an exponential rate. As it becomes more and more valuable the number of data breaches and risk of data loss faced by individuals, organizations, and countries continue to grow. Mr. Hedge will cover what the digital world looks like today, what the threat landscape is, and how we can protect ourselves.

- Threats faced by individuals.
- Threats faced by organizations.
- What you can do about it.
- What organizations can do about it

About the Speaker

Arthur Hedge is the President of Castle Ventures LLC. Castle Ventures is an Information Technology consulting firm focused on security. Mr. Hedge has over 20 years of consulting experience in the IT field. Mr. Hedge is a graduate of the Massachusetts Institute of Technology. He lives in New Jersey with his wife and two sons. He is a member of a number of professional organizations, including Information Systems Security Association (ISSA), and the Open Web Application Security Project (OWASP). Mr. Hedge serves as a mentor for Columbia University's Technology Management program. He is a frequent speaker and writer on technology subjects.

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 PM.

Time: 7:00 PM, Thursday, September 24th, 2009, pre-meeting buffet starting at 6:00 PM.

Place: Public Meeting Room, Morris County Library, 30 E. Hanover Ave, Whippany, NJ, (973) 285-6930.

Information: Michael Malm (201) 355-6167, mmalm "AT" ieee.org, Seth Jakel (973) 731 1902, (973) 820-1865, sgjakel "AT" comcast.net or Howard Leach (973) 540-1283, hhleach "AT" ieee.org.

News from IEEE-USA:

Unemployment Rate for Electrical Engineers Soars to New Record, Engineering Jobless Rate Up for Second Consecutive Quarter

Washington (7 July 2009) - The unemployment rate for U.S. electrical and electronics engineers (EEs) hit a new record in the second quarter, while the rate for all engineers increased for a second straight quarter, according to data released last week by the Department of Labor's Bureau of Labor Statistics (BLS).

"Technology drives our economy, which means engineering unemployment is a bellwether for recovery and job creation," IEEE-USA President Gordon Day said. "These new data suggest we've got a long way to go as the United States attempts to regain its economic footing."

The news for EEs was particularly bad as the jobless rate more than doubled from 4.1 percent in the first quarter to a record-high 8.6 percent in the second. The previous quarterly record was 7 percent, in the first quarter of 2003.

For all engineers, the unemployment rate jumped from 3.9 percent in the first quarter to 5.5 percent in the second quarter. The rate for computer professionals steadied at 5.4 percent, after a significant jump in the first quarter. The second-quarter unemployment rate for all professional workers showed a modest uptick, from 3.7 percent to 4.3 percent.

The BLS reports that 29,000 EEs were unemployed in the second quarter, up from the first-quarter figure of 13,000. On a small positive note, the number of employed EEs seems to have stabilized, actually rising 2.3 percent quarter-to-quarter, but at levels well below those of the past decade.

"Taken together, these data may suggest that engineers laid off last year and early this year are having trouble securing the new engineering jobs being created," Day said.

IEEE members can find career enhancement resources at <http://www.ieeeusa.org/careers/>. Help for unemployed and at-risk members is available at <http://www.ieeeusa.org/careers/help/>.

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

IEEE-USA in Action:

IEEE-USA Joins Others in Urging Federal Government to Improve Visa Processing for Visiting Students, Scientists, Scholars

Washington (15 June 2009) - IEEE-USA President Gordon Day signed a statement last week urging the federal government to improve the visa processing system to expedite the admittance of visiting international students, scholars and scientists.

IEEE-USA was one of 31 academic, scientific and engineering organizations to endorse the statement sent to U.S. policymakers. Signing organizations included the American Association for the Advancement of Science, the American Institute of Physics, the Association of American Universities, the American Chemical Society and the National Academy of Engineering.

The group expressed concern about significant increases in visa processing delays this year experienced by many foreign students, scientists and scholars interested in studying, conducting research or attending conferences in the United States. The organizations believe these problems are hurting our country's world scientific and economic leadership.

"Our nation's colleges and universities and scientific and technical organizations are the engines of the new knowledge, innovation, and advanced training that power the country's research enterprise and contribute greatly to economic and national security," the statement says.

Among the eight recommendations the group made are addressing "the current backlog of visa applications as expeditiously as possible," and streamlining "the visa process for credentialed short-term visitors in science and technology fields." Stricter visa screening was put into place after the 9/11 terrorist attacks.

"We are confident that it is possible to have a system that protects national security, and yet is still timely and transparent, provides for thorough reviews of applicants, and welcomes the finest talent," the group wrote.

View the statement at http://www.aaas.org/news/releases/2009/media/0611visa_delay_statement.pdf.

NJIT PRESS RELEASE:

Contact Information: Sheryl Weinstein
Public Relations 973-596-3436

NJIT Electrical Engineer Cracks Code To Detect Media Tampering



An NJIT electrical engineer has cracked the code that will enable researchers around the world to detect tampering with electronic images. "Using our program, we can usually inspect a photograph on a computer screen and know that someone has changed it," said Yun-Qing Shi, a professor of electrical and computer engineering. "We still cannot say, nor can anyone else, where in the media the image has been changed. But we will get there."

Earlier this year, "System and Method of Steganalysis," developed by Shi and his collaborator Guorong Xuan received a U.S. patent. The research has already been licensed. Since 2003, Shi has received four other patents in this area and awaits news of more than two dozen pending patents. Steganalysis is a method of determining whether data has been hidden in a digital medium.

Image tampering came to the world's attention following changes to two widely-recognized images--a Los Angeles Times photo of the Iraqi War in 2003 and a BBC News image of the Israeli air strike against Beirut in 2006. Since then, Shi, an expert in information assurance and digital data forensics who lectures worldwide, has made it his business to highlight new and better ways to detect tampering with electronic images.

"In our digital age," said Shi, "digital media has been massively produced, easily manipulated, and swiftly transmitted to almost anywhere in the world at any time. While the great convenience has been appreciated, information assurance has become an urgent and critical issue faced by the digital world."

In many applications, data hiding,

cryptography or a combination of both, will not reveal a problem. Rather, the science of digital data forensics, which gathers evidence of data composition, origin, and history, is necessary. Although this research field remains in its infancy, it is attracting increasing attention from the multimedia-security research community.

Shi lectures often about safety features multi-media users should put in place when posting any kind of media on the Internet. A common safety feature is simply being active: This means taking the time to add or hide secret codes in the original image or media. Codes might be as simple as crediting the photographer or adding a publication date and location.

A digital signature also works. "The signature is generated electronically and then one of many available methods can be employed to hide it," Shi said. Such a tact enables the user to verify the authenticity of a photo by extracting the embedded signature, then comparing it to other signatures possibly written over it.

Of course in most circumstances, most people don't have the time nor technical knowledge to embed a signature or sign their medium. How can an expert like Shi know if the image has been touched? "Thanks to our new patents if a user hasn't embedded identifying information, we will still be able to detect a forged image," said Shi. What our research can't yet determine is where the image has been touched. That's why our research is still ongoing."

Shi is the chair of the local North Jersey IEEE Signal Processing Chapter, a founding editor-in-chief of LNCS Transactions on Data Hiding and Multimedia Security (Springer), an editorial board member of Multidimensional Systems and Signal Processing (Springer), a member of IEEE Circuits and Systems Society and other IEEE committees, and a fellow of IEEE.

He's been a reviewer for Mathematical Reviews; a contributing author for the Comprehensive Dictionary of Electrical Engineering and has chaired more than a half dozen IEEE conferences and taught four tutorials. He received his doctorate from the University of Pittsburgh.

North Jersey Section Seeks Committee Chairs and Volunteers

The North Section is seeking new volunteers to help conduct business for the benefit of its membership. There are a variety of volunteer positions open and available. They range from technical to non-technical, leadership or just participatory. For Society Chapter Chairs, you must be a member of the corresponding IEEE Society.

If you would like to become involved with volunteering in some of these efforts or positions or just become more informed about what is happening at the North Jersey Section, please contact Dr. Chandra Gupta at c.gupta "AT" ieee.org. You are welcome to attend the Section business meeting held the first Wednesday of every month to find out more and other volunteer activities that require some help.

Some committees needing volunteers include the following. Please contact the person indicated for additional information.

- Power Electronics Society Chapter Chair - contact c.gupta below.
- GOLD (Graduates of the Last Decade) Affinity Group Volunteers and Committee members needed - contact northjerseygold@ieee.org
- WIE (Women in Engineering) Affinity Group Volunteers and Committee members needed - contact kduncan "AT" ieee.org
- EMBS (Engineering in Medicine and Biology Society) is seeking a chair and active committee volunteers - contact c.gupta "AT" ieee.org.
- Membership Development Committee Chair and Volunteers - contact c.gupta below.

Additionally, if interested volunteers would like to get more general information about the Section, including a complete listing of all chapters and committees, visit the North Jersey Section website <http://web.njit.edu/~ieeenj/>, or contact Dr. Chandra Gupta c.gupta "AT" ieee.org.

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 29, at

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 19. 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 regarding the event contact Ken Oexle 973-386-1156.

IEEE Life Grade Luncheon Registration NJ - October 29, 2009

Name _____

Address _____

Phone _____

IEEE # _____ Life Grade ____ Yes

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

Prior to October 19 and enclose \$5.00. Make check payable to **NJ Section IEEE**

North Jersey Reception Honors Fellows and Awardees

The IEEE North Jersey Section Successfully held its annual awards reception on Sunday May 3rd at the Birchwood Manor in Whippany, New Jersey. The awards reception took place from 3 to 6 PM at the manor with plenty of food and pictures. Each honored guest and award recipient is shown and identified in the captions.

This section wide event brings together IEEE Region 1 and neighboring section leadership, local section leadership, members, guests and families to recognize their IEEE members and volunteers for their continued and long-term dedicated efforts in technical subject areas and outstanding achievements in professional areas.

The reception honors the newly inducted IEEE Fellows, Region 1 awards winners in a variety of areas, and various technical society awardees for the contributions of their volunteers through their chapters.

Candidates for Region 1 award nominations are always being sought by the section awards committee chair Ken Oexle (k.oexle "AT" worldnet.att.net). Contact him for further details and deadlines of how to nominate a colleague.



(L-R) Fellow Award presented to Professor Nirwan Ansari (left), New Jersey Institute of Technology, "for contributions to broadband networks and communications" by Charles Rubenstein, Director-Elect, Region 1, and Amit J. Patel, Section Chair.

(L-R) Dr. Yves Baeyens, Bell Laboratories, Alcatel-Lucent, "for contributions to the broadband and millimeter-wave circuits for optical and wireless communications" by Charles Rubenstein, Director-Elect, Region 1, and Amit J. Patel, Section Chair.





(L-R) Fellow award presented to Dr. Anwar Elwalid, Bell Laboratories, Alcatel-Lucent, "for contributions to multimedia traffic in telecommunication networks" by Charles Rubenstein, Director-Elect, Region 1, and Amit J. Patel, Section Chair.

(L-R) Fellow award presented to Dr. Thomas Woo, Bell Laboratories, Alcatel-Lucent, "for contributions to network security and mobile data services" by Charles Rubenstein, Vice Director-Elect, Region 1, and Amit J. Patel, Section Chair.



(L-R) Region 1 Award presented to Dr. Ricky John for outstanding leadership in the technical innovation, development and implementation of energy policy by Amit J. Patel, Section Chair.

(L-R) Region 1 Award presented to Peter Donegan for outstanding leadership and service to the North Jersey Section and Student Engineering Activities by Amit J. Patel, Section Chair.



(L-R) Region 1 Award presented to Carl L. Sulzberger for outstanding leadership and service to the Power and Energy Society, the North Jersey Section and the History Committee of the IEEE by Amit J. Patel, Section Chair.

(L-R) Region 1 Alex Gruenwald Award presented to Paul Ward and Richard Tax for excellence in PACE (Professional Activities Committee for Engineers) within the North Jersey Section by Amit J. Patel, Section Chair.





(L-R) The IEEE MGA (Member & Geographic Activities) Leadership Award was presented to Dr. Nirwan Ansari for his sustained leadership and tireless efforts to increase and maintain continuous engagement of the North Jersey Section members by Charles Rubenstein, Director-Elect, Region 1, and Amit J. Patel, Section Chair.

The PES Chapter Outstanding Engineer Award was presented to Gabriel Paoletti (center) for outstanding leadership and contributions in the life extension, modernization, predictive analysis and life cycle cost of electrical distribution equipment by Michael Miller on the left and by Amit J. Patel, Section Chair on the right.



(L-R) The IEEE Industry Applications Society Outstanding Chapter Award was presented to Won Kim and Kenneth Oexle for outstanding chapter activities within the Section, by Amit J. Patel, Section Chair.

In Memoriam, Jerry B. Minter

By Howard Leach, Historian

In 1947, he organized and chaired the first Northern New Jersey Subsection of the Institute of Radio Engineers (IRE), the predecessor organization of the IEEE North Jersey Section. He was named a Fellow of the IEEE in 1969 and became a Life Fellow in 1979. He is shown below with other past Section Chairs at the seventh annual Life Grade Luncheon on October 18th, 2008, at the Hamilton Park Hotel & Conference Center, Florham Park, NJ.



From left - Dr. Michael Liechenstein (1993), Howard Leach (1989), Steve Mallard (1966-67), Ken Oexle (1979-80), Jerry Minter (1947), Herb Blaicher, Jr. (1970-71), Al Stolpen (1980-81,2000), Har Dayal (2005-06), and Kirit Dixit (2007-08)

Jerry B. Minter, 95, engineer, inventor, and businessman of Morris Township, NJ, passed away on May 19, 2009. He will be remembered by his family, friends, and business and professional colleagues for his many remarkable accomplishments and contributions.

He grew up in Fort Worth, Texas, and graduated from MIT in 1934 with a BS EE. During that time he showed his technical gifts at an early age with the building of crystal radio sets and the sale and installation of radios at the age of 12 through stores in Ft Worth, Texas. He went on to build, sell, and service other radios and public address systems in Texas and in Massachusetts while at MIT. After graduating from MIT, he returned to Fort Worth to build a ham station. From one of his ham contacts, he heard about a job in New Jersey. As a result he arrived in Boonton on May 20, 1935 with his portable 5-meter ham rig on his old Model A roadster. He used to drive to Sheep Hill in Boonton and work ham's at Rocky Point, Long Island.

In 1935, he joined Boonton Radio at \$15.00 per week in the development of band-pass intermediate frequency transformers. In 1936, at the Radio Frequency Laboratories of Boonton, he help design aircraft receivers for new tower frequencies. Unfortunately, RFL was closed when the IRS ruled in 1936 to tax all surplus corporate profit at 100 percent. He then joined the Ferris Instrument Corp on Boonton Ave in 1936 and worked on the Model 16 and 25A Standard Signal Generators. He also worked on the US Navy Model 32A Radio Noise and Field Strength Meter.

In 1939, he helped found the Measurements Corporation, Boonton, NJ, as VP and Chief Engineer with some of his associates from the Ferris Instrument Corp. They were successful with the design and production of test equipment, particularly signal generators models 78, 79, and 84 that supported the WWII radar development and operation. In fact the first Model 84 was shipped to England to help with a countermeasures laboratory. Another of their signal generators was in use at Pearl Harbor during the Japanese attack. At that time, they were producing about ten percent of the test equipment made in this country. Later they developed the Model 90 Signal Generator for color television receiver testing.

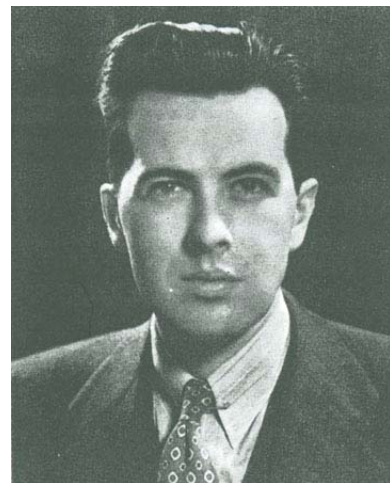
In 1947, he formed the Northern NJ Subsection of the IRE, the predecessor organization of the IEEE North Jersey Section. This became the IRE Northern NJ Section in 1954 which was eventually re-named the IEEE North Jersey Section in 1962-63 with the combination of the IRE and the AIEE into the IEEE. The Section is now celebrating its 55th anniversary.

The picture on the right was taken from the 1948 'Proceeding of the IRE, Waves and Electronics Section', which recognized him as Chairman of the IRE Northern New Jersey Subsection, organized in October of 1947.

In 1953, after the Measurements Corp. was sold to the Edison Company, Jerry had a number of conversations with Charles Edison about his father, Thomas A. Edison. One related to the fire at the West Orange Laboratories where Thomas Edison, excited about the size of the fire, asked his son, Charles, to go get his mother so she could see the blaze.

In 1954, Mr. Minter bought the Components Corp., Denville, NJ, and entered into the audio business where he developed a series of special test records using their own 'Professional' turn table and record presses. Also in 1954, He was elected president of the Audio Engineering Society and helped start publication of 'The Audio Engineering Society Journal.'

In the 1960's, the company designed and built miniature high voltage power supplies for use in high altitude probes for NASA. They also developed a high-reliability edge-board connector called the "DigiKlip" that was used commercially in the Univac 1108, DC-10, as well as in space and military programs. Jerry also worked on video taping systems, many that were setup in the surgical suites within hospitals in New York City and in other major hospitals across the country. In another medical project, he modified VCR's to reduce their startup time for recording surgical training videos in NYC. Jerry, at the time of his death, was still President of The Components Corp., Denville, NJ, which is still in business and provides printed circuit wireform interconnect products, see: <http://www.componentscorp.com/>.



His most recent technical innovation was a passive collision warning system for small aircraft. Jerry Minter holds 26 patents of which the last six are on his aircraft collision avoidance system. As a private pilot with his own 1946 Navion airplane at Morristown Airport, he was a member of the Civil Air Patrol (CAP) and used his own plane to perform search and rescue and other CAP missions. He was also a longtime member of the Quiet Birdmen.

In 2006, he presented a demonstration of his patented aircraft collision warning system to a joint meeting of the IEEE North Jersey Section Aerospace and Electronics Systems Society (AESS) Chapter and the Lone Eagle Composite Squadron, Civil Air Patrol, Peapack-Gladstone, NJ. He was also in the process of installing a prototype system on his aircraft for in-flight demonstrations.

The above photo shows left to right members of the Lone Eagle Composite Squadron with Jerry, Capt Will McLain V, commander, and Dr. Naresh Chand, Chair of the AESS Chapter.

On March 13th, 2007, Mr. Jerry B. Minter, the founder of the predecessor organization to our IEEE North Jersey Section made history again by becoming the first individual to be videotaped for an oral history for the IEEE History Center Archives. Until this time, the oral history recordings were all audio only. The video oral history taping was arranged by Mary Ann Hoffman, Archival & Web Services Manager, and conducted by Dr. Michael N. Geselowitz, Director, of the IEEE History Center, Rutgers University, New Brunswick, NJ. On the right, see photo taken of Jerry with Mary Ann Hoffman just before the video oral history taping at the Components Corp., Denville, NJ. A Measurements Corp. product, a Grid dip meter, which were produced in large volumes, is shown on the table.



It is fitting that Jerry was the first to have his oral history video taped as he was instrumental in the innovation of the use of video taping of surgical procedures for educational purposes. To see his edited video go to: the www.ieee.org home page, search on IEEE TV, select it, and under IEEE.tv Public Access, scroll down to: Oral History: Jerry Minter.

This article just hits the some of the highlights on Jerry's technical contributions. To get a much better understanding of his career and the many technical contributions he made, please read his oral history text. Go to:

www.ieee.org, home page, search on Oral Histories, select it and the alphabetical link at the bottom, then scroll to: Jerry B. Minter.

Jerry Minter was also very active in other profession organizations as well. He was a Fellow and past President of the Radio Club of America. Some of the information in this article was taken from an autobiography (1995) and profile (2002) of Jerry Minter published within the Radio Club of America Proceedings. He was also a past President of the Audio Engineering Society and held memberships in the Radio Electronic Television Manufacturing Association, the Society of Automotive Engineers, the American Standards Association, and the American Society of Metals.

In Memoriam, Raymond Weronick

By Keith Saracinello, Newsletter Editor and Business Manager

Raymond Weronick, PE, passed away on May 9th, 2009, at the age of 60. Born in Brooklyn, NY, he moved to Parsippany in 1978. He graduated from the City College of New York and received his Masters Degree from the Polytechnic Institute of NY.

Ray, as he was affectionately known by his peers, was Chief Electrical & Controls Engineer for Nuclear Programs for Washington Group International (formerly EBASCO Services/Raytheon Engineers & Constructors) working out of the World Trade Centers in New York City and later in Princeton for 38 years. Most recently he was the Director of Electrical Engineering at Tetra Tech in Morris Plains. Ray was a licensed Professional Engineer in 17 states including New York and New Jersey.

Ray was a career long IEEE member and a Senior Member since 1989. His experience and contributions included:

- Past Chairman - Nuclear Power Engineering Committee (NPEC) Sub-Committee 4 "Auxiliary Power"
- Past Member - Working Group for IEEE Std. 765 "Preferred Power Supplies for NPGS"
- Past Member - Working Group for "Loss of all AC at Nuclear Power Plants"
- Lecturer - IEEE Seminar "Electrical Power Supply Systems" (1985)
- Participation at numerous IEEE Seminars and Panel Discussions
- Nuclear Science Symposium (1999) Co-Author "Ampacity of Cables in Solid Bottom Trays With and Without Covers"
- American Power Conference (1996) Co-Author "Bus Transfers"
- American Nuclear Society (1990) Co-Author "Evaluating the Transient Performance of Emergency Diesel Generator Units by Computer Modeling"
- EEI Prime Movers Committee Presenter and Panel Member "Environmental Qualification of Electrical Equipment in Nuclear Power Plants" (1983)



On a personal note, Ray touched many lives, including my own with his zest for life, creative mind, selfless sense of humility, willingness to help others, and his tremendous sense of humor. He entertained many with his extemporaneous impersonations and magic tricks. Even in his various administrative and management capacities, he was proud to tell people he was *an engineer*. He was admired by many as a leader, a motivator, a role model, and inspiration in the true sense. Ray was the reason why I first joined IEEE as a student member, and he continued to encourage and support IEEE membership and participation throughout his career.

There was no greater love in Raymond's life than his family. He is survived by his wife Joyce, his son Jeffrey and his wife Alisa, his daughter, Joy Migliaccio and her husband Louis. Raymond was the beloved grandfather to Justin, Hayley, Courtney, Noah and Jillian. He also leaves his mother, Gertrude Weronick, his sister, Patricia Coniglio and her husband Ray.



THE INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS, INC.

IEEE NORTH JERSEY SECTION

MTT-Society and AP-Society Joint Chapter

PRESENT

24th ANNUAL SYMPOSIUM AND MINI-SHOW

FOCUS:

**SELECTED TOPICS IN RF AND MICROWAVE TECHNOLOGIES FOR
COMMERCIAL AND MILITARY APPLICATIONS**

DATE: THURSDAY OCTOBER 1, 2009

PLACE: Hanover Manor, 16 Eagle Rock Ave., E. Hanover, NJ 07936. Ph#973-992-7425

SCHEDULE OF EVENTS

9:00 AM TO 4:30 PM

TECHNICAL SESSIONS

**10 –12 LECTURES FEATURING SPEAKERS FROM LEADING
COMPANIES, WITH EMPHASIS ON MILITARY ELECTRONICS,
WIRELESS TECHNOLOGIES AND MICROWAVE COMMUNICATIONS**

**MINI SHOW FEATURING LATEST PRODUCTS
(APPX. 30-40 EXHIBITORS)**

(COMPLIMENTARY LUNCH SERVED)

Details of the schedule and speakers and the topics will be posted on the IEEE North Jersey Section Home page <http://www-ec.njit.edu/~ieeenj/NEWSLETTER.html> by July 2006.

For further information contact:

CHAIR/EXHIBITION: KIRIT DIXIT (201-669-7599), kdixit "AT" ieee.org

PUBLICITY: ARTHUR GREENBERG, ahg1 "AT" lucent.com

EVENT/ LOCATION CO-ORDINATOR: KEN OEXLE (973-386-1156)

CO-CHAIR– TECHNICAL PROGRAMS : HAR DAYAL (973-633-4618) har.dayal "AT"
baesystems.com

CO-CHAIR - TECHNICAL PROGRAM: GEORGE KANNELL (973-386-4170) gkk "AT"
lucent.com

THERE IS NO CHARGE TO ATTEND THE SYMPOSIUM OR SHOW

IEEE North Jersey Section Course C# .NET Programming

Wednesday, October 14, 2009 through December 9, 2009
Eight weekly classes (October 14, 21, 28, November 4, 11, 18, December 2, 9, 2009)
Place: Advanced Technical Marketing, Suite 113, 1719 Route 10, Parsippany, NJ 07054
(Checks should not be mailed to this address)

IEEE North Jersey Section thanks Advanced Technical Marketing **ATM** for sponsoring this course.

The IEEE North Jersey Section is offering a course entitled "C# .NET Programming". Since 2004, C# .NET has generated significant headway in Fortune 1000 enterprise development systems. Dice.com lists 700+ 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, PhD**, has been a corporate manager for 11 years and is an experienced trainer. Since 2004, he has trained 700+ people in database, Java, WebLogic, XML, and C# .NET courses in 7 organizations.

TOPICS

1. Compare the enterprise development tools using Java to C# .NET
2. Define Visual Studio .NET Version 2005 to 2008
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 services, advanced topics
9. Present student Projects

WHERE: Advanced Technical Marketing **ATM** Suite 113, 1719 Route 10, Parsippany, NJ 07054
WHEN: Eight Wednesdays, October 14, 21, 28, November 4, 11, 18, December 2, 9, 2009, 6:30 to 9:00 p.m.
COST: IEEE (& affiliate) members \$500; Non-IEEE members \$550.
CONTACT: Donald Hsu, yanyou "AT" hotmail.com

REGISTRATION: C# .NET Programming

Please mail the completed registration with a 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 the completed registration form and the payment are received, you are officially registered for this course.
Registration status will be confirmed by email.

I wish to receive IEEE Completion Certificate

Signature: _____