

The



IEEE Newsletter

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

NJ EDS/C&S:

Solar Energy Conversion

On March 11, 2009, the IEEE NJ Section Electron Devices, Circuits and Systems Chapters together with the New Jersey Institute of Technology will host a talk on "Solar Energy Conversion." The speaker will be Distinguished Lecturer, Dr. Vikram Dalal.

About the Talk

In this talk, Dr. Dalal will describe the worldwide energy picture, showing how we are reaching the end of the era of inexpensive fossil fuels. Production of petroleum from traditional petroleum resources is on a decline, and newer sources such as tar sands and shale oil are very expensive to extract. Even coal, which is presumed to be plentiful, has a very limited lifetime, measured in <100 years. Dr. Dalal will explain why we are running out of fossil resources, and address the demand side push on prices of all fossil fuels. When one combines this scenario with the global warming due to emission of carbon dioxide (and soot) from fossil fuels, solar energy becomes the only choice for the longer term (defined here as 50 years from now). Dr. Dalal will describe the various strategies for solar energy utilization, the status of various technologies, and address the critical R&D needs for both the U.S. and for India.

About the Speaker

Vikram Dalal is Whitney Professor of Electrical and Computer Engineering at Iowa State University. He obtained his BEng (EE) degree from University of Bombay, India in 1964, and his PhD in EE from Princeton University in 1969. He also holds a MPA degree from the Woodrow Wilson School at Princeton where he studied Economics.

Dr. Dalal has extensive experience as research scientist in the field of semiconductors and solar energy conversion. He has worked in industry (RCA Labs, Princeton, NJ) and several small companies in New Jersey and Massachusetts) and at Universities (U. of Delaware and Iowa State), he has been

at Iowa State University since 1988.

Dr. Dalal works in the fields of energy in general, and solar PV energy conversion in particular.

He holds 11 U.S. patents and has published about 170 papers and has mentored 25 PhD students and 35 MS students at Iowa State, in addition to teaching about 1500 undergraduate students.

Dr. Dalal is an IEEE Electron Devices Society Distinguished Lecturer, and a Fellow of IEEE.

All Welcome!

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

Time: 7:00 PM, Wednesday, March 11, 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).

Region 1 Award Nominations

Nominate a colleague. Region 1 of IEEE offers a variety of awards to recognize the engineering accomplishments of members. Specific award categories include: technological innovation, engineering organization, academic teaching, enhancement of IEEE image in the public or industry and sustained IEEE service. To obtain additional information about these categories visit the Region 1 website

www.ieee.org/r1

Once at the site click on Section Information on the far right column. On the Section page click on Region 1 Awards Information. We will assist you. To nominate a qualified individual prepare a 200-word summary (including the individual's name, IEEE number and IEEE US postal mail address) specifying the accomplishment of the candidate.

Send the summary to our Awards Chair Ken Oexle, 11 Deerfield Road, Whippany, NJ 07981, prior to May 1. The North Jersey Awards Committee will review the summary; suggest any changes; complete the nomination form; and forward it to the Region 1 Awards committee with a Section endorsement.

Award nominations are evaluated and approved at the Region 1 Summer Meeting and plaques are presented at the following North Jersey Section Annual Awards Reception.

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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, (302) 683-7162.

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, rcpepe "AT" ieee.org.

NJ Communications Society:

Trusted Access to Information in a Diverse Services Environment - A High-Value Mobile Application Enabler

On March 2, 2009, the IEEE Communications Society will host a presentation titled "Trusted Access to Information in a Diverse Services Environment - A High-Value Mobile Application Enabler." The speaker will be Stan Moyer.

About the Talk

As the number of mobile phone users continues to increase dramatically, the number of mobile application service providers is also rapidly growing. To be able to offer new and innovative services that have high end-user value, mobile application service providers (MASPs) will need access to sensitive and/or confidential wireless subscriber information (e.g., medical records, financial data, location information, equipment IDs) that owners of the information will be unwilling to provide without a "guarantee" that the end-user (subscriber) has authorized use or release of the information. Therefore, there is a need for a trusted, neutral, third party that can broker and authorize access to this information. A mechanism that can enable new and innovative applications that provide substantial benefits to end-users while also protecting the end-user's privacy interests would help allay many fears that are arising in both the press and the government.

Mr. Moyer will present some motivating examples in the form of several mobile phone applications, requirements, and an architecture for a solution to this problem, in form of a system we call TASER — Trusted Access to Sensitive End-user information Repositories. This system provides mediated access to sensitive or confidential information and allows end-users to authorize use of that information through a variety of "opt-in" mechanisms that are currently employed today for various mobile application services and promotions.

About the Speaker

Stan Moyer is Executive Director and strategic research program manager in the Applied Research area of Telcordia Technologies, where he has worked since 1990. Currently, Stan is the product manager for the Telcordia

Mobile Messaging and Application Solution, a hosted service for mobile marketing and affinity messaging and mobile web applications. In the past, he has led research and business development activities related to digital content services and home networking. On these and other topics, Stan has been a frequent speaker at events such as the IEEE's Consumer Communications and Network Conference (CCNC), IETF, The Broadband Home conferences, and other conferences and technical workshops. Prior to that he worked on ATM switch hardware, broadband network architectures and protocols, middleware, Internet network and application security, Internet QoS, and voice over IP.

Stan is currently President of the OSGi™ Alliance. Stan is also a Senior Member of the IEEE and a member of the IEEE Communications Society. He is a member of the board and Treasurer for the IEEE Communications Society, Vice-Chair of the IEEE CCNC Steering Committee, and a member of the IEEE Technical Activities Board Finance Committee.

All Welcome!

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

Time: 6:00 PM, Monday, March 2, 2009. Refreshments will be available at 5:45 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. Nirwan Ansari (973) 596-3670 (nirwan.ansari@njit.edu) or Yanchao Zhang (973) 642-7817. Also check <http://web.njit.edu/~ieeenj/comm.html> for the latest updates.

NJIT Course on Microwave Filters and Networks

Taught by Professor Richard V. Snyder (RS Microwave), this course will take the student through microwave filter and network design for lumped and distributed elements, covering passive and active implementations. In order to offer this course in Fall 2009, NJIT requires a minimum enrollment of six students. If you are interested in finding out more about the course content, contact Ralph Giffone (ralph.giffone@gdsatcom.com, 814-360-3733) for a 33-page PDF file containing a course abstract, bibliography and excerpts from the course notes.

IEEE North Jersey Section Activities

March 2009

Mar. 2 – “Trusted Access to Information in a Diverse Services Environment - A High-Value Mobile Application Enabler” by Stan Moyer, NJ Communications Society, 6:00 PM, New Jersey Institute of Technology (NJIT), Room 202, ECE Center (Intersection between Warren & Summit Streets), Newark, NJ. Dr. Nirwan Ansari (973) 596-3670 (nirwan.ansari “AT” njit.edu) or Yanchao Zhang (973) 642-7817. Also check <http://web.njit.edu/~ieeenj/comm.html> for the latest updates.

Mar. 4 – “NJ Section Meeting”, 6:30 PM, “Executive Committee Meeting” - 7:00 PM, ITT, 77 River Rd, Clifton, NJ. Russell Pepe at rpepe “AT” ieee.org.

Mar. 5 – “First Digit Law and Its Application to Digital Forensics” by Dr. Yun Qing Shi, NJ SP Society, 4:45 PM, New Jersey Institute of Technology (NJIT), Room 202, ECE Center (Intersection between Warren & Summit Streets), Newark, NJ. Yun Shi (973) 596-3501 (shi “AT” njit.edu), Alfredo Tan (201) 692-2347 (tan “AT” fdu.edu), and Hong Man (201)-216-5038 (hman “AT” stevens-tech.edu).

Mar. 10 – “North Jersey Spring 2009 Student Presentation Contest”, NJ SAC, 6:00 PM, Room M105 Auditorium, Muscarelle Building, Farleigh Dickinson University, Teaneck, NJ. For more information email northjerseysac “AT” ieee.org.

Mar. 11 – “Solar Energy Conversion” by Dr. Vikram Dalal, 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).

Mar. 11 – “Engineers Meet: The Legal System in Support of the Engineering Professional” by John Miano, Esq, NJ PACE, GOLD, & WIE, 6:30 PM to 9:00 PM, Clifton Memorial Library, 292 Piaget Ave, Clifton, NJ. Paul Ward, (973) 790-1625, PWARD1130 “AT” aol.com, Richard F. Tax, (201) 664-0803, rftax “AT” verizon.net, Dr. Katherine Duncan, (973) 209-8607, kduncan “AT” ieee.org.

Mar. 24 – “Chaos and Its Applicability to Communications Security” by Dr. Stamatios Kartalopoulos, NJ Communications Society, 6:00 PM, New Jersey Institute of Technology (NJIT), Room 202, ECE Center (Intersection between Warren & Summit Streets), Newark, NJ. Dr. Nirwan Ansari (973) 596-3670 (nirwan.ansari “AT” njit.edu) or Yanchao Zhang (973) 642-7817. Also check <http://web.njit.edu/~ieeenj/comm.html> for the latest updates.

Mar. 24 – “Product Development Methodologies for Success!” by Jerry Bellott, NJ Computer and TMC Chapters, 7:00 PM, Public Meeting Room, Morris County Library, 30 E. Hanover Ave, Whippany, NJ, (973) 285-6930. Michael Malm, (201) 355-6167, mmalm “AT” ieee.org, Saumil Vyas at saumil.ieee.org, or Seth Jakel (973) 731 1902, (973) 820-1865, sgjakel “AT” comcast.net.

Mar. 26 – “Electromagnetic Compatibility Design Targets for the Components of a System” by Dr. Hirayr M. Kudyan, PE, NJ Consultants' Network, 6:00 PM, Aeroflex/KDI-Integrated Products, 60 S. Jefferson Rd, Whippany, NJ. Robert Walker (973) 728-0344 or www.TechnologyOnTap.org.

Mar. 27 – “Fuse Protection of Electrical Distribution Systems Seminar” by Albert F. Cox, NJ PES/IAS, 9:00 AM to 2:00 PM, Automatic Switch Company, 50 Hanover Road, Florham Park, NJ. Ronald W. Quade, PE, (732) 205-2614 or rwquade “AT” ieee.org.

Mar. 30 – Apr. 1 – “2009 IEEE Sarnoff Symposium”, Nassau Inn, Princeton, NJ. Kyriakos Manousakis (Telcordia Applied Research) kyriakos@research.telcordia.com or David G. Daut (Rutgers University) daut@ece.rutgers.edu.

Upcoming Meetings

Apr. 1 – “NJ Section Meeting”, 6:30 PM, “Executive Committee Meeting” - 7:00 PM, ITT, 77 River Rd, Clifton, NJ. Russell Pepe at rpepe “AT” ieee.org.

Apr. 2 – “Sensor Networks: Underlying Present and Future Challenges” by Sachi Desai, NJ AESS Chapter, 7:00 PM, BAE Systems, 164 Totowa Road, Wayne, NJ 07474. Dr. Naresh Chand, (973) 636-7408, naresh.chand “AT” baesystems.com.

April 24 - “Low Voltage Circuit Breakers Seminar” by Eaton Corporation, NJ PES/IAS, 9:00AM to 2:00PM, Jersey Central Power and Light, Punch Bowl Room, 300 Madison Ave, Morristown, NJ. Ronald W. Quade, PE, (732) 205-2614 or rwquade “AT” ieee.org. Details to follow in the April Newsletter.

Apr. 25-26 – “34th Annual Trenton Computer Festival”, 9:00 AM to 5:00 PM, The College of NJ, Ewing, NJ. www.tcf-nj.org.

May 1-2 – “The 18th Wireless and Optical Communications Conference”, NJ Communications Society, New Jersey Institute of Technology (NJIT), Newark, NJ. Directions are available at <http://www.njit.edu/University/Directions.html>. Dr. Nirwan Ansari (973) 596-3670 (nirwan.ansari “AT” njit.edu).

May 3 – “NJ Section Awards Reception” - 3:00 to 6:00 PM at the Birchwood Manor, 111 North Jefferson Rd, Whippany, NJ. Anne Giedlinski (973) 377-3175.

May 22 – “Superconductor Power Cables Seminar” by Jack McCall, NJ PES/IAS, 9:00 AM to 2:00 PM, PSE&G Training Center, 234 Pierson Ave, Edison NJ. Ronald W. Quade, PE, (732) 205-2614 or rwquade “AT” ieee.org.

Members and Non-Members Welcome
PLEASE POST

NJ SP Society:

First Digit Law and Its Application to Digital Forensics

On March 5, 2009, the IEEE NJ Signal Processing Chapter together with the New Jersey Institute of Technology will host a talk on "First Digit Law and Its Application to Digital Forensics." The speaker will be Dr. Yun Qing Shi.

About the Talk

In our digital age, digital media are being massively produced, easily manipulated, and swiftly transmitted to almost anywhere in the world at anytime. While the great convenience has been appreciated, information assurance has become an urgent and critical issue faced by the digital world. The data hiding, cryptography, and combination of both have been shown not sufficient in many applications. Digital data forensics, which gathers evidence of data composition, origin, and history, is hence called for. Although this new research field is still in its infancy stage, it has started to attract increasing attention from the multimedia-security research community.

This seminar addresses the first digit law and its applications to digital forensics. First, the Benford law and generalized Benford law are introduced. Second, their applications to detection of JPEG compression history for given BMP images and detection of double JPEG compression are presented. Finally, the application of first digit law to detection of double MPEG video compression is discussed.

About the Speaker

Yun Qing Shi has been at the New Jersey Institute of Technology (NJIT), Newark, NJ since 1987, and is currently a professor of Electrical and Computer Engineering. He obtained his BS and MS from Shanghai Jiao Tong University, Shanghai, China; his PhD from University of Pittsburgh, PA. His research interests include digital multimedia data hiding, steganalysis, forensics and information assurance; visual signal processing and communications; theory of multidimensional systems and signal processing; applications of image processing and pattern recognition to industrial automation and biomedical engineering. Some of his research projects have been funded by several federal and NJ State agencies.

He is an author/coauthor of more than 200 papers, one book, and four book chapters. He holds four awarded US patents, and has 24 US patents pending (20 of these pending patents have been licensed to third party by NJIT). In

addition to workshop/conference paper presentation, he has been invited to deliver 70 speeches/seminars/tutorials around the world. He is the chairman of Signal Processing Chapter of IEEE North Jersey Section, the founding editor-in-chief of LNCS Transactions on Data Hiding and Multimedia Security (Springer), an editorial board member of Journal on Multidimensional Systems and Signal Processing (Springer), a member of several IEEE Circuits and Systems Society (CASS)'s technical committees, and a fellow of IEEE.

All Welcome!

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

Time: 4:45 PM, Thursday, March 5, 2009. Pizza will be offered at 4:30 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: Yun Shi (973) 596-3501 (shi "AT" njit.edu), Alfredo Tan (201) 692-2347 (tan "AT" fdu.edu), and Hong Man (201)-216-5038 (hman "AT" stevens-tech.edu).

NJ Computer & TMC:

Product Development Methodologies for Success!

On Tuesday, March 24, 2009, the IEEE North Jersey Section Computer Society and Technology Management Council Chapters will host a presentation titled "Product Development Methodologies for Success!" by Jerry Bellott.

About the Talk

Electrical Engineers can increase their ability to innovate, plan, and develop new products that succeed in the marketplace by increasing their knowledge of the corporate and market environments that they work in. Product development methodologies enable engineers to successfully achieve their goals through appropriate planning of all phases of a project.

Product Development Methodologies for Success! will empower you to:

- Position yourself to be innovative by planning continuing education on current technologies, standards, and practices to fuel creative thinking.
- Position your company for success by using your creative potential to plan new products that address customer needs well.
- Improve product quality by addressing customer needs and expectations.

- Succeed at producing quality products on time by following a structured methodology to break the execution phase down into steps.
- Increase peer interaction to have fun and learn from others through formal and informal peer discussion and review.

In addition to learning structured methodology concepts, creative engineering professionals will gain perspectives on how businesses decide what design projects to develop and assign to engineering staff.

About the Speaker

Jerry Bellott is an electrical engineer with more than 20 years experience designing products for the computer, wireless, and telecommunication industries at AT&T and Lucent Technologies' Bell Labs and other companies. Mr. Bellott founded CSS ("Circuits, Systems, and Software") in 2006 to provide information about product development methodologies and advanced technologies to engineers designing computers, wireless, broadband, and data networking products. Mr. Bellott currently serves as Vice Chair of the Princeton Chapter of the IEEE Signal Processing Society.

A few years ago, Mr. Bellott was senior systems engineer at a company that designed an ATM switch with SONET fiber and VDSL interfaces that provides digital video, internet access, and remote VLAN access to up to 240 clients. More recently, Mr. Bellott co-designed a Multi-core DSP circuit board using a MathStar IC which served as MathStar's primary customer IC demo and evaluation platform for a period of time. MathStar DSP's contain 64 multiply/accumulate circuits that run at 1 gigahertz each. Mr. Bellott is currently writing manuals and other documentation for a Northern New Jersey company that makes microwave digital video products.

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.

Time: 7:00 PM, Tuesday, March 24, 2009. Free pre-meeting buffet will begin 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@ieee.org, Saamil Vyas at saamil.ieee.org, or Seth Jakel (973) 731 1902, (973) 820-1865, sgjakel@att.comcast.net.

Chaos and Its Applicability to Communications Security

On Tuesday, March 24, 2009, the IEEE Communications Society will host a presentation titled "Chaos and Its Applicability to Communications Security." The speaker will be Dr. Stamatios Kartalopoulos.

About the Talk

The number of security breaches and network attacks increases as well as the sophistication of intruders and bad actors. To increase information integrity and network security, very complex processes are employed in cryptographic systems, such as chaos theory and quantum theory.

Chaos is based on the particular behavior of certain non-linear functions, which for a minute change of a parameter they produce a very large and unstable output, known as the chaotic regime. However, this chaos is reproducible, which makes it attractive to secure communications. In addition, we have identified certain peculiarities with chaos functions that the user needs to know of a priori.

In this talk we explain chaos and chaotic processes with simple examples. We also describe two cases for which the chaos functions may exhibit an undesirable state.

About the Speaker

Stamatios V. Kartalopoulos, PhD, is currently the Williams Professor in Telecommunications Networking with the University of Oklahoma. His research emphasis is on optical communication networks (long haul, FSO, and FTTH), optical technology including signal performance sensors, optical metamaterials, as well as chaotic processes, optical network security, including quantum networks and chaotic quantum cryptography. Prior to this, he was with Bell Laboratories where he defined, led and managed research and development teams in the areas of DWDM networks, SONET/SDH and ATM, Cross-connects, Switching, Transmission and Access systems. He has received the President's Award and many awards of Excellence.

Dr. Kartalopoulos holds nineteen patents related to communications networks and technology, and has published more than hundred fifty research papers, nine reference textbooks, and chapters to other books.

He has been an IEEE and a Lucent Technologies Distinguished Lecturer and has lectured at international Universities,

at NASA and conferences. He has been keynote speaker of major international conferences, has moderated executive forums, and has organized symposia, workshops and sessions at major international communications conferences.

Dr. Kartalopoulos is an IEEE Fellow, chair and founder of the IEEE ComSoc Communications & Information Security Technical Committee, series editor of IEEE Press/Wiley, and he has served as editor-in-chief of IEEE Press, chair of ComSoc Emerging Technologies and of SPCE Technical Committees, Area-editor of IEEE Communications Magazine, and VP of IEEE Neural Networks Council.

All Welcome!

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

Time: 6:00 PM, Tuesday, March 24, 2009. Refreshments will be available at 5:45 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. Nirwan Ansari (973) 596-3670 (nirwan.ansari@njit.edu) or Yanchao Zhang (973) 642-7817. Also check <http://web.njit.edu/~ieeenj/comm.html> for the latest updates.

NJ Consultants' Network:

Electromagnetic Compatibility Design Targets for the Components of a System

On March 26, 2009, the IEEE Consultants' Network of Northern NJ (www.technologyontap.org) will be holding a meeting featuring a talk titled "A Hierarchical Model for Prescribing Electromagnetic Compatibility (EMC) Design Targets to the Components of a System". Dr. Hirayr M. Kudyan, PE, will be the speaker.

About the Topic

This presentation deals with components of a system (i.e., units, shelves, or modules), which cannot be meaningfully tested for system-level emissions compliance by themselves.

The lack of standards for EMC Design objectives for stand-alone components of a system makes it difficult to determine whether a given component design is adequate from the Electromagnetic Compatibility perspective. This presentation introduces and discusses a qualitative methodology for defining practical EMC design targets for the

components of a system for production purposes. This method is a preliminary step in attempting to address this need, using a combination of common sense, stand-alone component-level emissions testing strategy and periodic design reviews of components during their design cycle.

About the Speaker

Hirayr M. Kudyan, PE (NJ) received his BSc and MSc in Electrical Engineering from Columbia University in New York City, and a PhD degree in Electrophysics from the Polytechnic Institute of New York in Brooklyn in 1978.

Hirayr is offering his expertise as an independent consultant in the areas of Design for EMC, EMI/RFI Management and RF Design in general. His interests include field and circuit simulations, computational and experimental investigations of phenomena associated with EMC management, power distribution, grounding and lightning protection for wireless base stations and systems.

Previously, while at Alcatel-Lucent for over ten years, he functioned as a Subject Matter Expert in EMC and RF Design, in the role of an in-house consultant to electrical and mechanical designers, for device layouts, artwork and grounding reviews for multi-layered PCBs and backplanes.

Hirayr can be reached at hmkudyan@ieee.org or (201)-599-2342.

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.

All Welcome!

Everyone is welcome. Admission to the meeting and plant tour is free.

Time: 6:00-8:00 PM, Thursday, March 26, 2009.

Place: Aeroflex/KDI-Integrated Products, 60 S. Jefferson Rd, Whippany, NJ. (Entrance at rear of building). To download a map to KDI, go to: <http://www.mcekd-integrated.com/directions.htm>.

Information: For directions and up-to-date meeting status, call Robert Walker (973) 728-0344 or visit our website at www.TechnologyOnTap.org.

IEEE North Jersey Section Education Committee

- ran courses: C, C++, Java, Advanced Java and C# programming successfully since 1993
- 138 IEEE engineers and non-engineers took these courses and they gave excellent reviews
- We need a company that has a classroom with 10+ computers, to run the programming courses.
- Contact Donald Hsu, Education Committee Chair, yanyou@hotmail.com if you can help. Thanks!

NJ SAC:

North Jersey Spring 2009 Student Presentation Contest

The Spring 2009 Student Presentation Contest is coming up! The North Jersey Section will be holding presentation contests scheduled for March 10 for undergraduate and graduate students. This contest has been held in years past. Its overwhelming success in generating student participation and interest make it a fantastic event for up and coming engineers. This year's contest will feature similar prizes (\$\$\$) and have graduate and undergraduate categories.

The main focus of the presentation contest is to give students an opportunity to sharpen their communication skills, and help prepare for real life situations as practicing engineers and researchers. Additionally, the North Jersey Section contest provides an excellent chance for students to practice for the Region I Student Paper contest in the spring.

The contest at the North Jersey Section level is also supplemented by awarding cash prizes to the three best presentations in both graduate and undergraduate categories. All engineering students are encouraged to participate in submitting team or individual presentations on any project work related to engineering. This local contest does not require students to write a full paper, just a slide-based presentation on technical or non-technical work is sufficient. Senior design projects, lab projects, personal engineering hobbies, engineering policy etc. are great topics to submit. Moving onto the regional contest requires submitting a short written paper.

The details of contest rules, judging criteria, viable topics for presentations, and abstract form will be the same as last year. Also, if you would like to get an idea of what topics would be appropriate or how you can prepare your abstract, take a look at winners from past years at the NNJ IEEE SAC homepage archive.

This year's North Jersey Section Contest will be open to graduate and undergraduate students and first/second/third place prizes will be awarded in each category of \$100/\$75/\$50. All participants must register by submitting an abstract by filling in the form available at the SAC website to qualify as a contest participant.

Time: Tuesday, March 10, 2009 starting at 6:00 PM with dinner at 5:30 PM

Place: Room M105 Auditorium, Muscarelle Building, Farleigh Dickinson University, Teaneck, NJ (Free Parking available).

Information: See http://www.fdu.edu/visitorcenter/directions/teaneck_map.html. Any and all questions can be emailed to the contest organizer, northjerseysac "AT" ieee.org.

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](mailto: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](mailto:c.gupta@at.ieee.org) below.
- GOLD (Graduates of the Last Decade) Affinity Group Volunteers and Committee members needed - contact [northjerseygold "AT" ieee.org](mailto:northjerseygold@at.ieee.org)
- WIE (Women in Engineering) Affinity Group Volunteers and Committee members needed - contact [kduncan "AT" ieee.org](mailto: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](mailto:c.gupta@at.ieee.org).
- Membership Development Committee Chair and Volunteers - contact [c.gupta](mailto:c.gupta@at.ieee.org) 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](mailto:c.gupta@at.ieee.org).

NJ AESS Chapter:

Sensor Networks: Underlying Present and Future Challenges

On April 2, 2009, the IEEE NJ Section Aerospace & Electronic Systems Society Chapter will host a talk on "Sensor Networks: Underlying Present and Future Challenges." The speaker will be Sachi Desai.

About the Talk

This talk will discuss sensors and sensor network, and provide a brief background on sensors, sensing algorithms, the purpose of sensors for added situational awareness, sensor implementation in a network format, the present and future challenges with sensor networks.

About the Speaker

Sachi Desai received his BS and MS degrees in electrical engineering with concentrations in Microelectronics/Photonics. Since 2002, he has been working at U.S. Army RDECOM-ARDEC where he is involved with acoustic based programs and exploiting signal processing techniques to increase the capability of disparate sensing technologies to provide added situational awareness to warfighters. His duties include acquisition/sustainment of acoustic sensor systems for sniper detection and the development of algorithms for impulsive based events. Currently he is a subject matter expert for utilization of acoustic sensors to provide added information from impulsive based explosions such as mortar/artillery. Much of his work has been published in SPIE, MSS, NDIA, IEEE, and JASA journals and has resulted in algorithms transitioned to fielded systems in OIF & OEF military operations.

All Welcome!

You do not have to be a member of the IEEE to attend the talks but you need to email your name, address, and citizenship to Dr. Naresh Chand by March 30. In your email, please use your subject as "IEEE AESS talk". A free buffet dinner, starting at 6:00 PM, will be provided. Come and bring your friends.

Time: 7:00 PM, Thursday, April 2, 2009. Free buffet will begin at 6:00 PM.

Place: BAE Systems, 164 Totowa Road, Wayne, NJ 07474.

Information: Dr. Naresh Chand, (973) 636-7408, [naresh.chand "AT" baesystems.com](mailto:naresh.chand@at.baesystems.com).

NJ Section PACE, GOLD, & WIE: **Engineers Meet:**

The Legal System in Support of the Engineering Professional

On Wednesday, March 11, 2009, the North Jersey Section of Professional Activities Committee, Graduates of the Last Decade and Women in Engineering will meet for a discussion about support of the American Engineer through the Legal System. The speaker will be John Miano, Esq.

About the Meeting

Jobs of American engineers are fading away due to importing foreign workers and sending jobs off shore. Both reduce opportunities for our American workforce.

This is not due to the operation of natural laws. It is the result of a political process controlled by powerful corporate interests.

The link between individuals acting alone in conflict with large organizations will seldom succeed. Engineers need to band together in their own organizations to generate the influence necessary to defend their livelihoods.

With the rise of foreign workers and discrimination towards Americans in the work force, the legal system is one avenue of recourse for engineers. This presentation will discuss the basics of lawsuits and how various types of complaints are handled in the legal system.

Mr. Miano will discuss how we can take on the corporations who recruit foreign workers and support off shoring. In addition, how we can do this as a group.

Bring your associates, friends and spouses.

About the Speaker

Our speaker will be John Miano, Esq. He has a BA in Mathematics from the College of Wooster, OH. He has 18 years of experience in programming, but has continued programming since then.

John Miano is the founder of the Programmers Guild. He is the author of two books on computer programming.

He became a lawyer in 2005 to take the fight to the legal system for American engineers and programmers

He has often been a guest on the Lou Dobbs' News program supporting the American High Tech worker.

John supports the American Engineering Association, IEEE and the Programmers Guild.

All Welcome!

Members and students from all professional societies and engineering disciplines are welcome.

Time: 6:30 PM to 9:00 PM, Wednesday, March 11, 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, rftax "AT" verizon.net, Dr. Katherine Duncan, (973) 209-8607, kduncan "AT" ieee.org.

Time for Action on New Jersey Mathematics Education

New Jersey is reconsidering its licensure requirements for public school teachers, so now is the time for concerned citizens to register their recommendations. Addresses follow. Currently there are no requirements for prospective elementary school teachers to take any appropriate mathematics courses, and their lack of knowledge of what their pupils should learn is appalling.

IEEE members may want to recommend four courses in accordance with the recommendations of the Combined Board of Mathematical Sciences: one each in arithmetic and number sense; geometry; statistics, probability, and data analysis; and algebraic reasoning. Or you may want to support the recommendations of the New Jersey Association of Mathematics Teacher Education: the first three listed above and a course in mathematical pedagogy.

In either case, write to Dr. Robert Higgins, Director, Office of Licensure and Certification and to the State Board of Education. Both addresses are at the New Jersey Department of Education, Box 500, Trenton, NJ 08625. The email addresses are Robert.higgins@doe.state.nj.us and StateBD@doe.state.nj.us.

Currently, New Jersey elementary school teachers are foggy on fractions, division, and subtraction, and not strong on addition. One nice prospective teacher in her last college math class insisted that because in 1999 small trucks owned by Americans averaged 20 mpg and sedans averaged 28 mpg that altogether they must average 48 mpg. "Altogether" means "add." Last year a fifth grade teacher in a nice suburban town was observed drilling her pupils in adding fractions by adding across the numerators and then adding across the denominators. Unprepared teachers resort to teaching key words and incorrect algorithms.

Elementary school teachers are eager to learn, and can learn quickly if taught appropriately. However, they emerged from our highly flawed system, and they need help if New Jersey's children are to learn mathematics. Please help by writing to the above addresses.

5th Annual Washington Career Fly-In

IEEE-USA will be holding its 5th annual Washington Career Fly-In on March 23 and 24. All IEEE members in the United States are invited to join us on Capitol Hill to discuss high-skill immigration with your members of Congress.

For nearly a decade, IEEE-USA has been the strongest voice in Washington pushing for reforms to our skill-based immigration system. Over the past two years the debate about high-skill immigration reform shifted dramatically in our favor. But now we face a new Congress with an unusually large number of new members. These new members have probably never heard of an H-1B visa, never given any thought to high-skill immigration and likely don't know what IEEE is. This is your opportunity to tell them.

Studies have shown that the single best way to influence a member of Congress is to meet with them in person. The Career Fly-In gives IEEE members an easy way to ensure that your concerns and opinions are heard by your elected leaders.

Fly-In participants will meet on the afternoon of March 23rd for a complete briefing on skill-based immigration policy and to learn how to meet with members of Congress (hint: it is easy). On March 24th, participants will spend the day on Capitol Hill meeting with their legislators. IEEE-USA will arrange all meetings. All you have to do is hold them.

All IEEE members in the United States are welcome and encouraged to attend. Students, retired members and even IEEE members who are not American citizens are needed.

In 2009, IEEE-USA will be trying to convince Congress to adopt our "Green cards not Guest workers" program by expanding access to green cards for immigrants who earn a masters or PhD from an American university. Our goal is to shift the focus of American immigration policy away from short-term work visas towards permanent green cards, especially for international students.

More information on IEEE-USA immigration proposals can be found here: <http://www.ieeeusa.org/policy/issues/immigration/>

To learn more about the IEEE-USA Career Fly-In and to register for the event, visit us at <http://www.ieeeusa.org/policy/careerflyin>.

For more information, contact Russell T. Harrison, Senior Legislative Representative - Grassroots Affairs, IEEE-USA, (202) 530-8326.

<i>Conference Chairs:</i> Kyriakos Manousakis (Telcordia Applied Research); David Daut (Rutgers University)			
<i>Technical Program Chairs:</i> Nicholas Madamopoulos (City College of CUNY); Ajay Rajkumar (Alcatel-Lucent)			
<i>Publication Chair:</i>	Aileen Cheng (Telcordia)	<i>Tutorial Chair:</i>	Edwin Hou (NJIT)
<i>Publicity Chair:</i>	Wei Jiang (Rutgers University)	<i>Finance Chair:</i>	Deniel Deng (NanoNuvo Corp.)
<i>Registration Chair:</i>	Vishal Singh (NEC-Labs)	<i>Local Arrangement Chair:</i>	Kale Franz (Princeton Univ.)
<i>Military Panel Chair:</i>	Matthew Zieniewicz (CERDEC)	<i>Exhibits Chair:</i>	Wei Wei (NEC-Labs)
<i>Commercial Panel Chair:</i>	Elias Kpodzo (BAE Systems)	<i>Web master:</i>	Komlan Egoh (NJIT)
<i>Student Poster Chair:</i>	Wieslaw Marszalek (DEVRY)		

Since 1978 the IEEE Sarnoff Symposium has been bringing together a tremendous and rich diversity of telecom experts from industry, universities, and government. The popularity of the Sarnoff Symposium, again being held in the historic Nassau Inn located in the heart of downtown Princeton, continues to grow as the premier forum for researchers, engineers, and business executives in the North East drawing an attendance from all over the world. Besides the technical paper presentations, the Symposium will include *tutorials, student paper poster presentations, executive panels, and exhibition.*

Prospective authors are encouraged to submit a full paper for review. Only original papers that have not been published or submitted for publication elsewhere will be considered. The submission process is carried through the *EDAS conference management system* (<http://edas.info/>).

The manuscripts must follow the IEEE two-column format with single-spaced, 10-point font in the text. The maximum paper length is of five (5) pages. A sixth page may be accepted after an additional fee. Submission of a regular paper implies that at least one of the authors will have a full registration to the Conference and present the paper upon the acceptance of the submission.

All accepted papers (after review by experts in the field) will be presented in oral sessions, included in the *2009 IEEE Sarnoff Symposium proceedings* and published through **IEEEExplore**. Student papers should be submitted to the Student Papers Chair (wmarszalek@devry.edu). Prospective tutorial presenters should contact the Tutorials Chair (houl@njit.edu). Detailed procedure is available at: www.sarnoffsymposium.org.

The Symposium is soliciting state-of-the-art research papers and tutorial proposals in the following areas of interest.

Communication Systems

- Broadband Networks (LAN/WAN)
- Network Security
- VoIP & QoS (IPv6/Telephony)

Communications Theory

- Network Information Theory
- Signal Processing for Communications
- Modulations and Coding Techniques

Military Communications

- Disruption Tolerant Networks
- Trust, Security, and Privacy
- Power Management Issues

Optical Communications & Networking

- WDM Systems and Devices
- Broadband Access Communication Technologies
- Fiber-Wireless (FiWi)
- Radio over Fiber (RoF)

Multimedia Applications & Networking

- Multimedia Communications

RF and Microwave Techniques

- Power Amplifiers
- Microwave Devices
- Antenna Systems
- Transceiver Design
- Satellite Communication Systems

Wireless Communications

- WLAN, WiMAX, 3G and 4G Systems
- Multiple Antenna Systems (Uplink and Downlink MIMO/Beamforming)
- Radio Resource Management and
- Interference Management
- Femto Network Deployment
- Self Configuring Networks
- Self Optimizing Networks
- Sensor, Mesh & Ad Hoc Networks
- Performance Analysis of Wireless Systems
- Ultra Wideband (UWB) Communications
- User and Network Security in Next Generation Networks

IMPORTANT DATES

Papers Due:	Dec. 9, 2008
Tutorial Proposals Due:	Dec. 9, 2008
Notification of Tutorials Acceptance:	Jan. 7, 2009
Student Papers Due:	Jan. 19, 2009
Notification of Papers Acceptance:	Feb. 6, 2009
Final Version Due:	Mar. 2, 2009

CONFERENCE SCHEDULE

Tutorials:	Mar. 30, 2009
Paper Sessions:	Mar. 31- Apr. 1, 2009
Exhibits:	Mar. 31, 2009
Poster Presentations:	Apr. 1, 2009



The Eighteenth Wireless and Optical Communications Conference

May 1 – 2, 2009, NJIT, Newark, New Jersey, USA

Conference Chair

Junyi Li, Qualcomm

Conference Organizer

Yu-Dong Yao, Stevens

Program Chairs

Wireless Symposium:

Guangying Li, Alcatel-Lucent

Jane Luo, Qualcomm

Networks Symposium:

Zhuangbo Tang, Johns Hopkins

Ben Tang, AT&T

Optical Symposium:

Angela Chiu, AT&T

Xiang Liu, Alcatel-Lucent

Multimedia Symposium:

Zhu Liu, AT&T

Hong Man, Stevens

Research Posters

Yingying Chen, Stevens

Tutorials

Hongya Ge, NJIT

Conference Coordinator

Sigen Ye, Alcatel-Lucent

Publications

Russell Sun, Alcatel-Lucent

Jin Yu, iBiquity Digital

Fund Raising

Qi Bi, Alcatel-Lucent

Treasurer

James Hwang, Lehigh

Local Arrangement

Mengchu Zhou, NJIT

Registration

Nirwan Ansari, NJIT

Public Relations

Kevin Lu, Telcordia

Shuang Yu, Alcatel-Lucent

International Liaison

Li Fung Chang, Broadcom

Steering Committee

Qi Bi, Alcatel-Lucent

Li Fung Chang, Broadcom

Ying Hu, Alcatel-Lucent

James Hwang, Lehigh

Kevin Lu, Telcordia

Shuang Yu, Alcatel-Lucent

Mengchu Zhou, NJIT

Co-Sponsoring Associations

- Chinese American Academic and Professional Society
- Chinese Association of Science and Technology
- Chinese Institute of Engineers
- IEEE Communications Society
- IEEE Northern Jersey Section
- Monte Jade Science and Technology Association
- Photonics Society of Chinese Americans

The eighteenth Annual Wireless and Optical Communications Conference (WOCC) will bring together technical experts and business leaders from the North America and Pacific Rim to discuss multimedia, optical, and wireless communications technologies and business opportunities. The theme of WOCC 2009 is **Converging Broadband Communications** over public mobile wireless networks, public fixed broadband wireline networks, and private customer premises networks. The integration of these three networks is the focus of a new next-generation network providing convergent user-centric services that are no longer associated with the types of network access or content media. Instead, these convergent user-centric services will offer seamless delivery of multimedia applications including voice, data, image, and streaming video independent of any access technologies. The transport layer protocol is converging on Internet Protocol that propelled the growth of the world wide web. The network and service providers will need to deploy standard-compliant converged networks and offer these new value-added services to save operational cost and grow their revenue. Convergent Communications can truly be considered as the enabler for the next phase of growth for the telecommunication industry.

High quality presentations and papers are solicited in the areas of wireless networking, intelligent multimedia, optical communications, and network solutions. The conference consists of four symposiums, with topics including, but not limited to, the following:

Wireless Symposium

- Wide-area and fixed wireless communications
- Wireless LAN/PAN
- Convergence of fixed and mobile hybrid communication system
- Low-power mobile end-devices and system-on-chip
- Security in mobile and wireless networks
- Sensor network and distributed mobile computing
- Location-based services and positioning
- Mobile and wireless applications
- Fundamental research in mobile and wireless communications

Networks Symposium

- Convergence architectures and solutions
- Migration to NGN and mobile broadband
- Network planning, design methods and tools
- Position of new technologies in the network

Optical Symposium

- Optical network planning, designing, and modeling
- Optical access/metro networks
- Photonic switching system architectures and network elements
- Optical passive/active components and devices
- Optical network protection and restoration
- Optical network applications

Multimedia Symposium

- Multimedia indexing and search
- Semantic-based multimedia analysis
- Multimedia database
- Multimedia content personalization
- Multimedia content distribution
- Peer-to-peer multimedia
- IPTV technologies and services
- Security of multimedia data
- QoS for multimedia applications

Submission Deadline: February 1, 2009

Notification: March 15, 2009

Submit the abstract/bio in Microsoft Word to one of the symposium chairs:

- **Wireless:** Guangying Li, gli@alcatel-lucent.com
- **Networks:** Zhuangbo Tang, z.bo.tang@jhuapl.edu
- **Optical:** Angela Chiu, chiu@research.att.com
- **Multimedia:** Zhu Liu, zliu@research.att.com

Please refer to www.wocc.org for the abstract/bio template and additional info.

IEEE AWARDS RECEPTION

*North Jersey Section
May 3, 2009
Birchwood Manor, Whippany NJ*

*A time to relax, unwind and enjoy --
A time to pay tribute to our new Fellows --
A time to honor our Award Winners --
YES it's time for the Annual Section Reception*

The Annual Section IEEE Awards Reception will be held at the Birchwood Manor, 111 North Jefferson Road, Whippany again this year. The affair is scheduled for **Sunday, May 3, 2009** from 3 to 6 PM. Tickets are \$35.00 each. Spouses and guests are welcome. We are limited to 90 attendees, so please make your reservations early.

Reservations are required by April 24, 2009. Complete the reservation form and return it with your payment. If you would like tickets mailed back to you, please enclose a self-addressed **stamped** envelope. Otherwise, your tickets will be held at the door for you. If any additional information is required concerning the reception, contact Anne Giedlinski at (973) 377-3175.

Use this form for Reception reservations. **ENCLOSE A SELF-ADDRESSED STAMPED ENVELOPE to receive tickets in advance. Reservations are required by April 24, 2009.**
Mail reservation request to:

Anne Giedlinski
299 Brooklake Road
Florham Park, NJ 07932

Enclosed is _____ for _____ ticket(s) at \$35.00 each (make check payable to **North Jersey Section IEEE**) for:

NAME: _____

ADDRESS: _____

Yes, please send me directions to the Birchwood Manor

NJ Power & Energy Society/Industry Applications Society

Superconductor Power Cables Seminar

The PES and IAS Chapters will sponsor a technical seminar on the topic of superconductor power cables. The session will be held on Friday, May 22, 2009 at the PSE&G Training Center, 234 Pierson Avenue, Edison, NJ.

Topics

Superconductor Power Cables – More Power, Less Space, Fault Current Limiting

- ✓ Introduction to superconductivity
- ✓ Quantify the unique capabilities provided superconductor power cables
- ✓ Understand why utilities are installing this capability today
- ✓ Review of current superconductor cable installations and projects
- ✓ Identify the opportunities for superconductor use
- ✓ Appreciate that these systems are composed of commercial, off-the-shelf components

About the Instructor

Jack McCall is the Director of T&D Systems for American Superconductor with responsibility for superconductor cable systems, STATCOMs, SVCs, and related FACTS solutions. Jack has over 25 years experience in the utility T&D business holding a variety of product engineering, product management, system engineering, business development, marketing, and strategic planning roles. He has his Master's in Electric Power Engineering from Rensselaer Polytechnic Institute, Troy, NY, and his BSEE from Gannon University, Erie, PA. He is a member of the IEEE and CIGRE.

The registration fee for this seminar will be \$150 for non-IEEE members, \$100 for IEEE Members, \$75 for GOLD Graduates (last 1-10 years) and \$25 for students with valid ID. The fee will be waived for IEEE Life Member Grades with verification at the seminar. The seminar fee includes lunch, refreshments and handouts. Non-members joining IEEE within 30 days of the seminar will be rebated 50% of the IEEE registration charge.

If desired, IEEE Continuing Education Units will be offered for this course - a small fee of \$25 will be required for processing. A total of 0.4 CEUs will be offered. Please indicate if desired below.

Time: 9:00 AM to 2:00 PM (lunch is included), Friday, May 22, 2009.

Place: PSE&G Training Center, 234 Pierson Avenue, Edison NJ

Directions: http://maps.google.com/maps?f=q&source=s_q&hl=en&geocode=&q=234+pierson+ave,+edison,+nj++08837&sll=37.0625,-95.677068&sspn=32.472848,55.546875&ie=UTF8&ll=40.530714,-74.349353&sprn=0.0076,0.013561&z=16&iwloc=addr

Information: Ronald W. Quade, PE, (732) 205-2614 or [rwquade "AT" ieee.org](mailto:rwquade@at.ieee.org)

Registration: Superconductor Power Cables Seminar 5/22/2009

Register via US mail to: Ronald W. Quade, PE
Eaton Electrical
379 Thornall St, 8th Floor
Edison, NJ 08837

Name _____

Address _____

Phone _____ Email _____

IEEE # _____ Student @ _____ Non IEEE _____ Life Member _____

Continuing Education Units: _____ Yes \$25 _____ No

If CEUs are chosen, please include a \$25 processing fee

Payment Enclosed \$ _____

Make checks payable to North Jersey Section IEEE (Credit Cards cannot be processed at this time).

NJ Power & Energy Society/Industry Applications Society

Fuse Protection of Electrical Distribution Systems Seminar

The PES and IAS Chapters will sponsor a technical seminar on the topic of Fuse Protection of Electrical Distribution Systems. The session will be held on Friday, March 27, 2009 at Automatic Switch Co., 50 Hanover Rd, in Florham Park, NJ.

Topics

Fuse Protection of Electrical Distribution Systems:

- ✓ Examining sources of available short circuit current – fusible protection of service transformers
- ✓ U.L. 248 - Fuse Types And Characteristics
- ✓ Applying Current Limiting Fuses In A Distribution System (NEC 240.2)
- ✓ Fuse Protection Of Motors And Motor Starters (NEC 430.32, 430.52)
- ✓ Understanding New Elevator Circuit Requirements (NEC 620.51, 620.62)
- ✓ NFPA -70E - Electrical Safety Basics – Understanding the Dangers of Arc Blast and Arc Flash

About the Instructor

The instructor will be Albert F. Cox, EE of Bussmann. Mr. Cox is a Graduate Electrical Engineer with over fifty years experience in the electrical industry. Presently he is District Sales Engineer with Cooper Bussmann – NYC & New Jersey. Prior experience included Project Engineer / Manager - Syska Hennessy Group, Consulting Engineers, NYC. Mr. Cox serves as Member – NYC Electrical Advisory Board.

Additionally, Mr. Cox has a long list of relevant professional experience including: IEEE Life Member; Past Chairman IEEE Education Committees – NYC and New Jersey; Author & Co-Author of several technical papers focusing on “Overcurrent Protection”; I.A.E.I. Executive Board Member – North & South New Jersey Chapters; Past President – Metropolitan Electrical League of New Jersey; Approved Instructor – Continuing Education Program for N.J. State Board of Examiners of Electrical Contractors, and NJ Department of Community Affairs/Rutgers University.

The registration fee for this seminar will be \$150 for non-IEEE members, \$100 for IEEE Members, \$75 for GOLD Graduates (last 1-10 years) and \$25 for students with valid ID. The fee will be waived for IEEE Life Member Grades with verification at the seminar. The seminar fee includes lunch, refreshments and handouts. Non-members joining IEEE within 30 days of the seminar will be rebated 50% of the IEEE registration charge.

If desired, IEEE Continuing Education Units will be offered for this course - a small fee of \$25 will be required for processing. A total of 0.4 CEUs will be offered. Please indicate if desired below.

Time: 9:00 AM to 2:00 PM (lunch is included), Friday, March 27, 2009.
Place: Automatic Switch Company, 50 Hanover Road, Florham Park, NJ 07932 (973-966-2000)
Directions: From Route 80 Take I-287 to Exit 37 (NJ 24 East - Springfield). Take NJ 24 East to Exit 2B (Columbia Turnpike). Proceed 2.2 miles to Hanover Road (6th set of traffic lights). Turn left on Hanover Road (AAA Building). Automatic Switch will be on the right (0.4 mile). Enter first driveway-marked shipping/receiving and proceed to visitor parking lot on the left. Follow sidewalk to office entrance door.
Information: Ronald W. Quade, PE, (732) 205-2614 or rwquade “AT” ieee.org

Registration: Fuse Protection of Electrical Distribution Systems Seminar 3/27/2009

Register via US mail to: Ronald W. Quade, PE
Eaton Electrical
379 Thornall St, 8th Floor
Edison, NJ 08837

Name _____

Address _____

Phone _____ Email _____

IEEE # _____ Student @ _____ Non IEEE _____ Life Member _____

Continuing Education Units: _____ Yes \$25 _____ No

If CEUs are chosen, please include a \$25 processing fee

Payment Enclosed \$ _____

Make checks payable to North Jersey Section IEEE (Credit Cards cannot be processed at this time).