

The



# IEEE Newsletter

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

*NJ Section PACE, GOLD, & WIE:*

## Engineers Meet: Stocks; Methods for Your Trading Strategy

On Wednesday, January 14, 2009 the North Jersey Section Professional Activities Committee, Graduates of the Last Decade and Women in Engineering will host a meeting to discuss systematic methods for your trading strategy. Our speaker will be Bill Purvin, a representative from Charles Schwab and Company.

### About the Meeting

A disciplined approach to trading is essential in any market, particularly in today's volatile climate. The discussion will move beyond the basics of technical analysis and learn how to incorporate a systematic method into your trading strategy.

You will learn risk management techniques, how to use Schwab tools to help you identify potential trading opportunities and how to use charts to help you determine buy/sell signals.

Bring your associates, friends and spouses.

### About the Speaker

Bill Purvin is an Active Trader Relationship Manager serving Charles Schwab offices in the New York metropolitan area. Bill has worked in the financial services industry for over twenty years with Merrill Lynch, Bear Stearns and Charles Schwab and Co., Inc.

Much of his experience has been with Schwab trading and making markets in NASDAQ stocks for *Schwab Capital Markets L.P. (now known as UBS Securities LLC)*. Bill also traded at a proprietary trading firm in Westchester, NY.

He has a Bachelor of Arts degree in Economics from Rutgers University and has completed courses in advanced technical analysis with New York Institute of Finance. He is currently studying to complete his Certified Financial Planner and Certified Market Technician designations.

### 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](http://www.aea.org)  
[www.ieeeusa.org/policy/care/](http://www.ieeeusa.org/policy/care/)  
[www.ieeeusa.org](http://www.ieeeusa.org)  
[www.programmersguild.org](http://www.programmersguild.org)  
<http://web.njit.edu/~ieeenj/>  
[www.asme.org/sections/northjersey](http://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 go to [www.ieeeusa.org/policy/care/](http://www.ieeeusa.org/policy/care/).

**Time:** 6:30 PM to 9:00 PM, Wednesday, January 14, 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) 664-6954, rtax "AT" aea.org, Kate Duncan, (973) 209-8607, kduncan "AT" ieee.org.

## Newly Elected IEEE Fellows

The North Jersey Section IEEE congratulates the following members who were elected to the Fellow grade:

### Professor Nirwan Ansari

*"for contributions to broadband networks and communications"*

### Dr. Yves Baeyens

*"for contributions to the broadband and millimeter-wave circuits for optical and wireless communications"*

### Dr. Anwar Elwalid

*"for contributions to multimedia traffic in telecommunication networks"*

### Dr. Thomas Woo

*"for contributions to network security and mobile data services"*

**JANUARY 2009**

# January 2009

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### NEWSLETTER STAFF

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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](mailto: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:

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

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Katherine Duncan (kduncan "AT" ieee.org)  
Seth Jakel (sjjakel "AT" comcast.net )  
Dr. Mengchu Zhou (zhou "AT" njit.edu)

**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.**

## New IEEE Award Sponsored by Toyota Recognizes Environmental and Safety Technologies

The IEEE Foundation recently announced that Toyota Motor Corporation will sponsor a new IEEE award, the IEEE Medal for Environmental and Safety Technologies. This award will recognize outstanding accomplishments in the application of technology in the IEEE fields of interest that improve the environment and/or public safety.

Toyota donated \$300,000 to support the awarding of the IEEE Medal to an individual recipient, or a team of recipients up to three in number, each year, for the years 2010 through 2019.

"One of Toyota Motor Corporation's core values has been to focus our research and development efforts on automotive environmental and safety technologies. This philosophy prompted us to work with IEEE, the world's largest technical professional association, to create the Medal for Environmental and Safety Technologies and recognize individuals and organizations that are making a difference, globally," said Toyota Motor Corporation spokesperson. "Together with IEEE, we look forward to promoting this global movement on sustainability, and the successes achieved by each winner."

Criteria considered for the award include: public benefits of the contribution; degree of improvement in important performance metrics; innovative design; development or application engineering; favorable influence of the contribution on technical professions. It is relevant to a wide community including power electronics, intelligent transportation systems, wireless communications, sensor networks control, control and automation, computing, and signal processing.

Each recipient of the IEEE Medal for Environmental and Safety Technologies will receive a gold medal, a bronze replica, a certificate and honorarium. In the event that a team up to three in number is selected, the honorarium will be equally divided.

"A truly joint effort, we are honored to partner with Toyota to bring this award to the global market as an opportunity to recognize outstanding contributions in environmental and safety technologies," said Lew Terman, President, IEEE. "We hope the IEEE Medal for Environmental

and Safety Technologies will inspire individuals and organizations to develop innovative technologies that will benefit humanity, globally."

Toyota Motor Corporation acknowledges the cooperation and advice of Prof. Fumio Harashima, Prof. Hiroyuki Sakaki, and Prof. Toshio Fukuda in the establishment of this award. To learn more about this and other IEEE Awards, visit <http://www.ieee.org/awards>.

### IEEE-USA in Action:

## Winning Entry in 'How Engineers Make a World of Difference' Online Video Scholarship Competition Featured on 'Design Squad' Web Site

Washington (18 November 2008) - The winning entry in the 2008 IEEE-USA "How Engineers Make a World of Difference" Online Engineering Video Scholarship Competition can be seen on the PBS "Design Squad" Web site at <http://pbskids.org/designsquad/special/ieee/ieee.html>.

Engineering Undergraduates Ben Toler and Emile Frey of Louisiana Tech University, Ruston, La., split the IEEE-USA competition's \$2,500 first prize. Their entry was deemed most effective in reinforcing for an 11-to-13-year-old audience how engineers improve the quality of life and how engineering can be a creative and rewarding career.

With two teams of high-school students competing to solve a new engineering challenge each week, "Design Squad" was created by PBS to reach the same 11-to-13-year-old audience. The program is in its third season on PBS with the IEEE continuing funding support.

Additionally, IEEE-USA is awarding \$5,000 in scholarship prizes in the second year of its online engineering video competition. Entries must be submitted through YouTube by U.S. undergraduate students in engineering, computer science and information technology no later than 16 January 2009. For more information on how to enter, go to [http://www.ieeeusa.org/communications/video\\_competition](http://www.ieeeusa.org/communications/video_competition).

Contact: Pender M. McCarter, Senior Public Relations Counselor, IEEE-USA/Washington, DC  
(202) 530-8353, [p.mccarter@ieee.org](mailto:p.mccarter@ieee.org), <http://www.ieeeusa.org>

# IEEE North Jersey Section Activities

## January 2009

**Jan. 7** – “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.

**Jan. 14** – “Engineers Meet: Stocks; Methods for Your Trading Strategy”, 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) 664-6954, rtax “AT” verizon.net.

**Jan. 29** – “Getting Started as a Consultant”, NJ Consultants' Network, 7:30 PM, Aeroflex/KDI-Integrated Products, 60 S. Jefferson Rd, Whippany, NJ. Robert Walker (973) 728-0344 or www.TechnologyOnTap.org.

### Upcoming Meetings

**Feb. 4** – “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.

**Feb. 20** – “Selective Coordination Seminar” by Alton Baum, PE, NJ PES/IAS, 9:00 AM to 2:00 PM, 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.

**May 1-2** – “The 18<sup>th</sup> 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).

## Members and Non-Members Welcome

# PLEASE POST

### *NJ Consultants' Network:*

## Getting Started as a Consultant

On Thursday, January 29, 2009, the IEEE Consultants' Network of Northern NJ ([www.technologyontap.org](http://www.technologyontap.org)) will be hosting a panel on getting started as a consultant.

### **About the Topic**

How do I get started as a consultant? Why should I? Is it for me? What are the benefits and the downsides? The panelists will describe what motivated them to become enter independent practice as consultants and how they did it. Discussion will address topics such as: forming a business, finding clients, setting fees, insurance, bookkeeping, marketing and promotional materials. Audience participation and questions are welcome.

### **About the Panelists**

*Pat Banker* of Banker Coté, LLC, has been involved in design of circuits and firmware for embedded systems, specializing in 8 & 16-bit uCs and DSPs. Her services include new product design

and analysis/updating of existing products, in the area of microcontroller and DSP firmware/hardware, signal processing, real-time code. Pat can be reached at pbanker “AT” bankercote.com or (201) 307-9212.

*Art Greenberg* of Silver RF Consulting offers his services in highly specialized field of microwave and RF design. Art can be reached at a.h.greenberg “AT” ieee.org

*Eric Holme* of Mechanical & Elec. Systems Analysis specializes in high voltage generators and motors as well as in power plant electrical equipment. Eric offers services in maintenance, failure analysis, testing and repair, in addition to litigation and forensic investigation. Eric can be reached at e.holme “AT” ieee.org or (201) 568-5717.

*Peter Schutz* of Schutz Engineering Corp. is designing, developing and testing new products in instrumentation, medical and laboratory equipment. Beyond electronics, his expertise includes: mechanical components and systems, plastics, pneumatic and fluid systems, thermal design and analysis, packaging,

enclosures and prototypes. Peter can be reached at SchutzE “AT” compuserve.com or (908) 638-3300.

### **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:** 7:30 PM, Thursday, January 29, 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.mcekdi-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](http://www.TechnologyOnTap.org).

News from IEEE-USA:

## Creating a Sustainable Energy Infrastructure to be Featured at IEEE Energy 2030 Conference in Atlanta

Washington (13 November 2008) - With rising energy prices and concerns about future power supplies and the impact burning fossil fuels might have on the climate, the need to develop clean, reliable and affordable energy sources has become paramount.

The IEEE Energy 2030 Conference (<http://ewh.ieee.org/conf/energy2030/>) will examine the technology, policy and economic framework required to create a global sustainable energy infrastructure by 2030. More than 125 original papers and presentations are expected.

IEEE Energy 2030 is slated for 17-18 November at the Atlanta Marriott Marquis.

Sustainable energy meets the power needs of the present without depleting it for the future. Renewable energy sources such as solar, wind, nuclear, geothermal, hydro and biomass are typically included. Sustainable energy efforts usually entail technologies that improve energy efficiency.

Georgia Tech Professor Dr. Deepak Divan, conference chair and president-elect of the IEEE Power Electronics Society, said the strong interest the event has generated points to the need for a forum focusing on energy sustainability.

"The interdependencies of technology, resources, economics and policy no longer allow simpler models to work effectively, requiring a holistic approach to defining solutions," said Divan, director of Georgia Tech's Intelligent Power Infrastructure Consortium (IPIC).

Topics of discussion include reduced carbon generation; public policy for sustainability; smart grid and energy efficiency; demand management; plug-in hybrid electric vehicles; economics of sustainability; energy storage; power electronics; renewable energy; and distributed energy resources.

Speakers will include, among others, David Ratcliffe, chairman, president and CEO of Southern Company, one of America's largest electricity producers; Clark Gellings, vice president of technology, Electric Power Research Institute (EPRI); and Patricia Hoffman, principal deputy assistant secretary for the Department of Energy's Office of Electricity Delivery and Energy Reliability.

IEEE Energy 2030 was initiated and sponsored by the IEEE TAB New Technology Directions Committee.

Sponsors include EPRI, Georgia Tech, Vestas, ABB, AWEA, INNOVOLT, IPIC, NEETRAC, SEI, Siemens, Southern Company, UTRC and UWIG.

IEEE co-sponsors are IEEE-USA, the IEEE Standards Association, IEEE Power Electronics Society and IEEE Power and Energy Society.

IEEE-USA advances the public good and promotes the careers and public policy interests of more than 215,000 engineers, scientists and allied professionals who are U.S. members of the IEEE. IEEE-USA is part of the IEEE, the world's largest technical professional society with 375,000 members in 160 countries. See <http://www.ieeeusa.org>.

Contact:

Chris McManes

IEEE-USA Public Relations Manager

Phone: (202) 530-8356

E-mail: [c.mcmanes@ieee.org](mailto:c.mcmanes@ieee.org)

*IEEE-USA in Action:*

## IEEE-USA Applauds NASA on Space Agency's 50th Anniversary, in Commemorative Publication and Public Radio Announcements

Washington (30 October 2008) - IEEE-USA is commending NASA on its 50th anniversary in 2008, through tributes in a commemorative publication and in public radio announcements. A 368-page commemorative publication, "NASA: 50 Years of Exploration & Discovery," was distributed at all of the space agency's anniversary celebrations, events and galas, as well as to multiple NASA facilities and contractors, and to members of Congress.

In an advertisement appearing in the publication, IEEE-USA noted: "U.S. members of the IEEE, the world's leading technical professional association, have been contributing scientific, technical and engineering know-how to NASA since the space agency began -- from the first NASA launch in 1958, to Apollo 11 (1969), to the Mars Exploration Rovers (2004)." Copies of the ad are available on request to [p.mccarter@ieee.org](mailto:p.mccarter@ieee.org).

In addition, IEEE-USA is highlighting the space agency's anniversary in four IEEE-USA promotional announcements on WETA-FM, the U.S. capital's only all-classical music station, with some 400,000 Washington, D.C.-area listeners. The public radio announcements, which

also recognize NASA's Goddard Space Flight Center in Greenbelt, Md., are scheduled in November and December on WETA-FM (90.9).

Two announcements will be aired during NPR newsbreaks at 8 a.m. Eastern Time (ET) on Monday, 3 November; and at 8 a.m. ET on Monday, 1 December. Two more announcements will be included on the WETA-FM radio simulcast of PBS' "NewsHour With Jim Lehrer" at 6:59 p.m. ET on Friday, 7 November; and on the afternoon opera between 1:00-5 p.m. ET on Saturday, 6 December.

To listen to the radio programs and IEEE-USA announcements online, go to <http://www.weta.org/fm>. IEEE National Capital Area volunteers are also participating in two WETA fall pledge drives to help raise funds for the public television and radio station.

Contact: Pender M. McCarter, Senior Public Relations Counselor, IEEE-USA/Washington, DC  
(202) 530-8353, [p.mccarter@ieee.org](mailto:p.mccarter@ieee.org), <http://www.ieeeusa.org>

### Visit the IEEE North Jersey Section Webpage at

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

North Jersey Section information such as officer contact details, meeting presentation slides, and the online Newsletter can be found there. Check for last minute meeting updates and schedule changes.

As an added benefit, all North Jersey Section members that have provided an email address in their IEEE member profile will receive an email with early notification of the Newsletter posting.

### **Director of Electrical Engineering opportunity - leading Neuromodulation Company**

St. Jude Medical develops medical technology and services that focus on putting more control into the hands of those who treat cardiac, neurological and chronic pain patients worldwide. The company employs more than 13,000 people worldwide and has five major focus areas that include: cardiac rhythm management, atrial fibrillation, cardiac surgery, cardiology and neuromodulation. **St. Jude Medical has been named to FORTUNE Magazine's list of America's Most Admired Companies for the last four years. In 2007 and 2008, FORTUNE named St. Jude Medical the No. 1 most admired company in the Medical Products or Equipment category.**

St. Jude Neuromodulation is a recognized technological leader in spinal cord stimulation for chronic pain and is currently investigating the use of its technology in the treatment of such conditions as Parkinson's disease, Essential Tremor, Migraines, Depression and Obesity. Please visit our website at [www.sjmneuro.com](http://www.sjmneuro.com) more information about our company. **We offer competitive compensation and a comprehensive benefits package. Relocation assistance will be provided.**

The Director of Electrical Engineering is responsible for effectively managing multi-project product development and implementation efforts of the organization, including management of the financial and technical resources required to accomplish specific Electrical Engineering assignments. This individual will provide technical leadership, detailed project planning, and overall organization of R & D group resources to facilitate the engineering of products and processes which meet corporate quality, cost, and scheduling objectives.

**JOB KNOWLEDGE / EXPERIENCE REQUIRED:**

- Bachelor's degree in Electrical Engineering. Master's preferred.
- Twelve years minimum experience in a high technology manufacturing environment is required. Experience in the medical device industry is preferred. A minimum of two plus years of demonstrated experience at a supervisory/managerial level is required.
- Five plus years technical design leadership required. Strong experience in engineering and product development with demonstrated capability and thorough understanding of the product development process.
- Requires highly developed leadership skills and experience, including the ability to map task interdependencies, multi-task, prioritize such tasks, meet deadlines, and develop, monitor and live within budgets as well as the demonstrated ability to forecast major milestones. Must be skilled at delegation, follow-up, and team building.
- Demonstrated knowledge of sound design principles, regulatory requirements, and product and process validation procedures.
- Demonstrated proficiency with computer aided design software and hardware familiarity. Formal training on systems and software is desired.
- Exemplary analytical, organizational, written and oral communication skills are a must.

Qualified candidates should apply online via our website at <http://www.sjmneuro.com> and reference position #ANS1107. No agencies or phone calls, please

## **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](mailto:yanyou@hotmail.com) if you can help. Thanks!



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

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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](mailto:wmarszalek@devry.edu)). Prospective tutorial presenters should contact the Tutorials Chair ([houl@njit.edu](mailto:houl@njit.edu)). Detailed procedure is available at: [www.sarnoffsymposium.org](http://www.sarnoffsymposium.org).

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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

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### 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

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### CONFERENCE SCHEDULE

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

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## 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](mailto:gli@alcatel-lucent.com)
- **Networks:** Zhuangbo Tang, [z.bo.tang@jhuapl.edu](mailto:z.bo.tang@jhuapl.edu)
- **Optical:** Angela Chiu, [chiu@research.att.com](mailto:chiu@research.att.com)
- **Multimedia:** Zhu Liu, [zliu@research.att.com](mailto:zliu@research.att.com)

Please refer to [www.wocc.org](http://www.wocc.org) for the abstract/bio template and additional info.

# NJ Power & Energy Society/Industry Applications Society

## Selective Coordination Seminar

The PES and IAS Chapters will sponsor a technical seminar on the topic of Selective Coordination. The session will be held on Friday, February 20, 2009 in the Punch Bowl Room at Jersey Central Power and Light, 300 Madison Ave, Morristown, NJ.

### Topics

Selective Coordination:

- ✓ What is Selective Coordination?
- ✓ Protection vs. Selectivity
- ✓ Phase vs. Ground Fault Protection
- ✓ Equipment Protection (Conductors, Transformers, Motors)
- ✓ The Coordination Study and relativity with Arc Flash
- ✓ Fuses vs. Circuit Breakers; Coordination Trip Intervals
- ✓ Emergency Systems (NEC Art. 700.27, 701.18)
- ✓ Critical Operations Power Systems (Art. 708.54)
- ✓ Healthcare Facilities Ground Fault Protection (Art. 517.17)
- ✓ Solution Tools

### About the Instructor

The speaker will be Alton Baum, PE from AB Engineering, LLC. Mr. Baum carries over 20 years of utility generation and industrial power systems experience working for Westinghouse, Eaton Electrical, and Square D. After starting his career as a field engineer in large generators/excitation, Mr. Baum focused in the area of power systems analyses, power quality investigation/solution, and, most recently, arc flash analysis. In 2007, Mr. Baum started an independent engineering consulting practice, AB Engineering, LLC, which provides power engineering services to the industrial/commercial markets. He has performed hundreds of short circuit, overcurrent coordination, and arc flash studies, and has been teaching in these areas for most of his career. Mr. Baum holds the BS degree in Electrical Engineering from West Virginia Institute of Technology (1987), the Master of Business Administration from Widener University (1998), and the MSEE in Power Engineering from Drexel University (2003). He is a member of IEEE, board member of the Delaware Valley Power Quality Group, and holds Professional Engineer licenses in multiple states.

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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, February 20, 2009.  
**Place:** Punch Bowl Room at Jersey Central Power and Light, 300 Madison Ave, Morristown, NJ.  
**Directions:** Route 287 to Route 124 (Madison Ave exit). Head toward Madison. Jersey Central building is on the left about 1.5 miles from the exit.  
**Information:** Ronald W. Quade, PE, (732) 205-2614 or rwquade "AT" ieee.org

### Registration: Selective Coordination Seminar 2/20/2009

Register via US mail to: Ronald W. Quade, PE  
Eaton Electrical  
379 Thornall St, 8<sup>th</sup> 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).**