

The



IEEE Newsletter

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

IEEE Education Committee

Boost Your Bottom Line- How to Secure More Projects and Manage Time, Employees and Clients Effectively

On February 21, 2008, the IEEE Education Committee is offering a one-hour Teleseminar titled "Boost Your Bottom Line - How to Secure More Projects and Manage Time, Employees and Clients Effectively." The speaker will be George Sierchio.

About the Talk

Many business owners and independent consultants, especially those in technical fields, have the problem of being good at working "in" their business but struggle working "on" their business.

This way of managing a business leads to slow, flat or declining growth as well as employee/contractor issues and constant time crunches.

We will explore a number of proven ways to shorten the sales cycle, put more projects in the hopper on a regular basis and gain the time to work "on" the business. We will also go over a few client management issues that will help in securing more work with current and former clients.

All attendees will leave with several tools to help them with these critical business survival issues and the opportunity for a free business analysis.

About the Speaker

George Sierchio has a BSEE from NJ Institute of Technology with over 15 years of experience as an owner of a variety of businesses including those in the technology based consulting and service industry. He had profitably built his businesses using processes and systems borrowed from successful businesses in other industries, tailoring them to his high skilled consulting business model.

Mr. Sierchio started Action Business Partners, Inc. 4 years ago to continuously build on the experience that made his

businesses a success and transfer that knowledge to other entrepreneurs with a similar technical background. He is a certified and seasoned coach/advisor to technology based consulting and service business owners looking to grow their businesses by 20% or more each year, work less hours per week and develop a lucrative exit strategy.

All Welcome!

This talk is free and designed for business owners and independent consultants.

You do not need to be an IEEE member but you must notify Education Chair Donald Hsu, yanyou "AT" hotmail.com and follow this link to register for the teleseminar <http://www.actionbusinesspartners.com/ieereg.htm>.

Time: Noon with replays at 7:00 PM and 10:00 PM (60 minute time length), Thursday, February 21, 2008.

Place:

<http://www.actionbusinesspartners.com/ieereg.htm>

Information: Donald Hsu, yanyou "AT" hotmail.com.

Spring 2008 Region 1 SAC-GOLD-WIE Conference Coming Soon

Attention all members! The upcoming regional student conference this year will be held locally in the North Jersey Section. It is planned for the weekend of April 25-26, 2008 at Fairleigh Dickinson University in Teaneck, NJ. This paper contest and micromouse competition is open to undergraduate IEEE students (see <http://ewh.ieee.org/reg/1/sac/> for more details).

This year's Regional GOLD and WIE conference will be jointly held with the student conference at the same FDU location and there will be a parallel program of activities, seminars, leadership training, social events. The details of the program are being finalized, as well as separate registration for GOLD participants. More information about the upcoming Spring joint conference will be posted online at http://ewh.ieee.org/r1/north_jersey/gold/ and future newsletters and email postings will publish the agenda.

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IEEE NJ SECTION HOME PAGE

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

IEEE NJ SECTION NEWSLETTER HOME PAGE

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

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The North Jersey Section Executive Committee usually meets the first Wednesday (except holidays and December) of each month at 7:00 PM. Meetings are open to all members. For information on meeting agenda contact Secretary Russell Pepe at (201) 960-6796, rpepe "AT" att.net.

NJ Consultants' Network: Getting Started as a Consultant

On Thursday, February 28, 2008, the IEEE Consultants' Network of Northern NJ (www.technologyontap.org) will host a panel on getting started as a consultant.

About the Topic

How do I get started as a consultant? Why should I? What are the benefits and the downsides? The panelists will describe what motivated them to become consultants and how they did so. They will address topics such as: forming a business, finding clients, setting fees, insurance, bookkeeping, marketing and promotional materials. Audience participation and questions will be welcomed.

About the Panelists

The panelists include:

George Hacken, with a PhD in Physics from Columbia and over 35 years of computer applications experience involving science, algorithms, avionics, simulation, automation, finance and business applications. Dr. Hacken continues to lead a successful consulting practice. He is conversant in classic and contemporary methodologies; maintaining currency in relevant technologies, such as satellite communications, formal methods and parallel processing. George can be reached at Hacken@ieee.org, (973) 633-1840.

Ed McCauley of Bottom Line Technologies, Inc. Founded in 1985 by one of the original Xilinx Field Application Engineers, the continuing mission of Bottom Line Technologies Inc (BLT) is to offer clients premium quality design services on aggressive schedules at a competitive price. Bottom Line is a full service design services firm which specializes in Xilinx, FPGA, DSP, PCI, HS Logic and FW Design. BLT believes that when designs are done well, promptly and cost effectively, it's bottom line and that of it's clients are well served. Ed can be reached at sales.cnnnj@bltinc.com, (908) 479-1200 X-222.

John R. Redmon of John R. Redmon, Inc. is experienced in all aspects of electric power transmission and distribution in utility, commercial and industrial systems. He provides short circuit & relay coordination studies, load flow, stability, reliability, failure analysis, economic studies, control system modifications, startup testing of substation, traction power and signal systems for transit systems, and due diligence for mergers and acquisitions. John can be reached at john.redmond1@verizon.net, (973) 271-5963.

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 welcome. No registration needed. Free admission.

Time: 7:30 PM, Thursday, February 28, 2008.

Place: Aeroflex/KDI-Integrated Products, 60 S. Jefferson Rd, Whippany, NJ. (Entrance at rear of building).

Information: For directions and up-to-date meeting status, call Robert Walker (973) 728-0344 or visit our website at www.TechnologyOnTap.org. To download a map to KDI, go to: <http://www.mcekdi-integrated.com/directions.htm>.

The North Jersey Section Congratulates Dr. Durga Misra

Dr. Durga Misra, a professor in the Electrical and Computer Engineering Department at NJIT, has been elected to serve as IEEE Southern Area Chair for the next 2 years (2008-2009). The Southern Area of IEEE Region 1 consists of 6 sections: North Jersey, Jersey Coast, Princeton/Central Jersey, New York, Long Island and Connecticut. During 2004 and 2005, Dr. Misra served as Chair of the North Jersey Section. Presently he serves as Co-Chair of the EDS/CAS Chapter and Chair of the Intersection Committee in the North Jersey Section. He is also a distinguished lecturer of the IEEE Electron Device Society. The IEEE North Jersey Section EXCOM appreciates his valuable service to the Section and is looking forward to working with him as the Southern Area Chair.

IEEE North Jersey Section Activities

February 2008

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

Feb. 13 – “Engineers Meet: For a Members Social”, NJ PACE, GOLD, WIE, 6:30 – 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, rftax “AT” verizon.net.

Feb. 20 – “Automated Design of Microfluidics-Based Biochips: Connecting Biochemistry to Electronics CAD” by Professor Krishnendu Chakrabarty, NJ EDS/C&S Chapters, 7:00 PM, New Jersey Institute of Technology (NJIT), Room 202, ECE Center, 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).

Feb. 21 – “Boost Your Bottom Line- How to Secure More Projects and Manage Time, Employees and Clients Effectively”, NJ Education Committee, 12:00 Noon with replays at 7:00 PM and 10:00 PM, <http://www.actionbusinesspartners.com/ieeereg.htm>. Ronald W. Donald Hsu, yanyou “AT” hotmail.com.

Feb. 22 – “Power Monitoring Solutions Seminar”, NJ PES/IAS, 9:00 AM to 2:00 PM, Automatic Switch Company, 50 Hanover Road in Florham Park, NJ. Ronald W. Quade, PE, (732) 205-2614 or rwquade “AT” ieee.org.

Feb. 28 – “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

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

Mar. 11-May 6 – “Project Management” by Dr. Donald Hsu, North Jersey Section, Tuesday Evenings, 8 sessions, 6:30-9:00 PM, NJ International Bulk Mail Center, 80 County Rd, Jersey City, NJ. Donald Hsu (yanyou “AT” hotmail.com).

Mar. 25 – “Undergraduate Student Paper Contest”, SAC, 5:30 PM, Fairleigh Dickinson University, Room M105 Auditorium, Muscarelle Building, 1000 River Road, Teaneck, NJ. Any and all questions can be emailed to the contest organizer, northjerseysac “AT” ieee.org.

Mar. 27 – “Graduate Student Paper Contest”, SAC, 5:30 PM, Fairleigh Dickinson University, Room M105 Auditorium, Muscarelle Building, 1000 River Road, Teaneck, NJ. Any and all questions can be emailed to the contest organizer, northjerseysac “AT” ieee.org.

Apr. 9 – “Electron Devices in Astronomy” by Dr. Lucian Kasprzak, NJ EDS/C&S Chapters, 7:00 PM, New Jersey Institute of Technology (NJIT), Room 202, ECE Center, 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).

Apr. 25 – “Harmonics Seminar”, NJ PES/IAS, Time TBD, Facility in North Jersey to be determined. Detailed information to follow in the March Newsletter and on the North Jersey Section website.

Apr. 25 & 26 – “Region 1 Student Conference”, NJ SAC-GOLD-WIE, Time TBA, Fairleigh Dickinson University, 1000 River Road, Teaneck, NJ. Russell Pepe, rpepe “AT” att.net.

Apr. 26-27 – “Trenton Computer Festival”, Saturday 10:00 AM to 5:00 PM and Sunday 10:00 AM to 4:00 PM, The College of New Jersey in Ewing, NJ. Allen Katz, TCF Speaker Program Chairperson, a.katz “AT” ieee.org or (609) 771-2666.

Apr. 28-30 – “2008 Sarnoff Symposium”, Nassau Inn, Princeton, NJ. See details at <http://www.sarnoffsymposium.org>.

Members and Non-Members Welcome
PLEASE POST

NJ EDS/C&S Chapters:

Automated Design of Microfluidics-Based Biochips: Connecting Biochemistry to Electronics CAD

On February 20, 2008, the IEEE NJ Section Electron Devices, Circuits and Systems Chapters together with the New Jersey Institute of Technology will host a talk on "Automated Design of Microfluidics-Based Biochips: Connecting Biochemistry to Electronics CAD." The speaker will be Professor Krishnendu Chakrabarty.

About the Talk

Microfluidic biochips are revolutionizing laboratory procedures for high-throughput DNA sequencing, protein crystallization, drug discovery, immunoassays, etc. As these biochips mature into multifunctional devices with reconfiguration capabilities, automated design and ease of use become extremely important. There is a need to deliver the same level of computer-aided design (CAD) support that the semiconductor industry now takes for granted. These CAD tools will allow designers and users to harness the new technology that is rapidly emerging for integrated biofluidics.

This talk will present ongoing work on design techniques for microfluidic biochips. First, the speaker will provide an overview of electrowetting-based digital microfluidics. Next, the speaker will describe synthesis tools that can map behavioral descriptions to a droplet-based microfluidic device and generate an optimized schedule of bioassay operations, the binding of assay operations to functional units, as well as the layout and droplet flow-paths for the biochip. Techniques for pin-constrained chip design, fault detection, and dynamic reconfiguration will also be presented. An automated design flow allows the biochip user to concentrate on the development of nano- and micro-scale bioassays, leaving implementation details to design automation tools.

About the Speaker

Krishnendu Chakrabarty received the B. Tech. degree from the Indian Institute of Technology, Kharagpur, in 1990, and the MSE and PhD degrees from the University of Michigan, Ann Arbor, in 1992 and 1995, respectively. He is now Professor of Electrical and Computer Engineering at Duke University. Professor Chakrabarty is a recipient of the National Science Foundation Early Faculty (CAREER) award, the Office of Naval Research Young Investigator

award, the Humboldt Research Fellowship from the Alexander von Humboldt Foundation, Germany, and several best papers awards at IEEE conferences. His current research projects include: testing and design-for-testability of system-on-chip integrated circuits; digital microfluidics, circuits and systems based on DNA self-assembly, and wireless sensor networks. He has authored seven books on these topics, published over 250 papers in journals and refereed conference proceedings, and given over 100 invited, keynote, and plenary talks.

Professor Chakrabarty is a Fellow of IEEE (Class of 2008), a Distinguished Visitor of the IEEE Computer Society for 2005-2007, and a Distinguished Lecturer of the IEEE Circuits and Systems Society for 2006-2007. He is an Associate Editor of IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, IEEE Transactions on VLSI Systems, IEEE Transactions on Circuits and System I, IEEE Transactions on Biomedical Circuits and Systems, and the ACM Journal on Emerging Technologies in Computing Systems. He also serves as an Editor of IEEE Design & Test of Computers and of the Journal of Electronic Testing: Theory and Applications (JETTA).

All Welcome!

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

Time: 7:00 PM, Wednesday, February 20, 2008. Free buffet will be starting at 6:15 PM.

Place: New Jersey Institute of Technology (NJIT), Room 202, ECE Center, Newark, NJ. Directions are available at <http://www.njit.edu>.

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).

North Jersey Spring 2008 Student Presentation Contest

The Spring 2008 Student Presentation Contest is coming up! The North Jersey Section will be holding presentation contests scheduled for March 25 for undergraduate students and on March 27 for 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 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 IEE 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 25, 2008 (Undergraduate Students), and Thursday, March 27, 2008. (Graduate Students), starting with dinner at 5:30 PM.

Place: Fairleigh Dickinson University, Room M105 Auditorium, Muscarelle Building, 1000 River Road, Teaneck, NJ (Free Parking available). http://www.fdu.edu/visitorcenter/directions/teaneck_map.html

Information: Any and all questions can be emailed to the contest organizer, northjerseysac "AT" ieee.org.

NJ Section PACE, GOLD, & WIE:
**Engineers Meet:
For a Members Social**

On Wednesday, February 13, 2008, the North Jersey Section Professional Activities Committee, Graduates of the Last Decade, and Women in Engineering will meet for a social, with pizza, soda, and refreshments.

About the Meeting

This meeting is about getting members of the Section together for a light evening of discussion and hospitality. Basically we will hold a brainstorming session to discuss future meetings and activities. Meeting's offer lively discussions among engineering professionals. All are invited. We shall encourage North Jersey Section Ex-Com officers to attend. When they do, our Section membership will have an opportunity to meet with them on a first name basis.

Bring your associates, friends and spouses.

About the Speaker

Everyone will have an opportunity to express their views about the profession, jobs and opportunities.

All Welcome!

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

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

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

Time: 6:30 PM to 9:00 PM, Wednesday, February 13, 2008. Pizza and 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, rftax "AT" verizon.net.

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

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 at [c.gupta "AT" ieee.org](mailto:c.gupta@ieee.org).

**Call for TCF-2008
Speakers**

TCF-2008, the 33rd Trenton Computer Festival (<http://www.tcf-nj.org>), is scheduled for Saturday & Sunday April 26th & 27th, with an affiliated IT Professional Conference <http://princetonacm.acm.org/tcfpro/> on Friday April 25th. All events will be held at The College of New Jersey in Ewing, NJ.

The focus this year will be on providing "hands on experiences" at TCF. We are looking for talks and tutorial workshop proposals on all forms of digital and information/communications technology (including robotics, computer control of home, environment, etc.), education, podcasting, gaming and digital home entertainment, digital photography, digital wireless technology, networking and VOIP. We are also planning a special speaker track on robotics.

If you have an idea for a talk or workshop/tutorial session for a general audience at the TCF Saturday/Sunday sessions, please fill out the Speaker Application Form at: http://www.tcf-nj.org/spkr_reg.html

If you are interested in presenting at the Friday IT Professional Conference, which focuses on briefings intended for those working in the computer industry, please see <http://princetonacm.acm.org/tcfpro/speaker.html> and contact David Soll at [dsoll "AT" omicron.com](mailto:dsoll@micron.com).

Proposals must be received by February 3rd. Corporate sponsorship is also invited. For more information contact: Allen Katz, TCF Speaker Program Chairperson, email: a.katz@ieee.org, telephone: (609) 771-2666, fax: (609) 631-0177, US Mail: Dr. Allen Katz, School of Engineering, The College of New Jersey, PO Box 7718, Ewing, NJ 08628-0718.

NJ EDS/C&S Chapters:
**Electron Devices in
Astronomy**

On April 9, 2008, the IEEE NJ Section Electron Devices, Circuits and Systems Chapters together with the New Jersey Institute of Technology will host a talk on "Electron Devices in Astronomy." The speaker will be Dr. Lucian Kasprzak.

About the Talk

Gazing at the stars has intrigued man since the dawn of the first civilizations. Available technology and mathematics have helped man posit answers to the questions of man's place in the universe, how it came about, where it is headed and what it means. Ancient cultures used the solar and lunar cycles, as well as the cycle of the stars, to perfect agriculture and attempt to predict the future as well as posit theories of the universe. Modern man is no exception and continues this paradigm.

Electron devices, in the twenty first century, are present in literally everything that touches man, both directly and indirectly. Electron devices in many embodiments have also brought astronomy to new heights of observational perfection. The precision now achievable, facilitated by the use of electron devices, permits a new level of refinement for both theory and experiment. The largest earthbound telescopes in use today are typically 10 meters, compared to Hubble Space Telescope at 2.4 meters. New telescopes, in the 25, 50 and 100 meter range, are in design or construction around the world. The specific electron device applications used in modern telescopes include detectors, encoders, actuators, feedback control systems, custom computers and computer programs. These devices and innovations have enabled a series of telescope improvements, such as, active optics (mirror shape correction), adaptive optics (atmospheric turbulence correction), interferometry and large baselines.

Since one objective of astronomy is observation, the question of resolution and sensitivity of the tools for observing become a paramount concern for those doing the observation. The theoretical resolution of a telescope is the diffraction limited distance between two discernable objects. This limit is rarely even approached for telescopes with primary diameters greater than about 20 cm. The problem has to do with nature of the objects being imaged (points of light) and the aberrations inherent in optical instruments, which are dependant upon the perfection of the curvature of the lenses or reflectors used to form the

image. The technique known as active optics makes corrections to the curvature of the primary mirror to reduce or eliminate these aberrations. Properly placed and monitored electron devices have made active optics a reality for modern telescopes.

Sensitivity of a telescope implies how faint an object can be resolved or seen. It depends upon the detector, signal and noise, as well as how well the object in question can be tracked as it moves across the night sky. Modern low noise CCD detectors and precise tracking mechanisms opened a new era in telescope imaging and photometry.

Seeing, as used astronomy, means how much is the image blurred by turbulence in the air between the telescope and the vacuum of space. The Hubble Space Telescope sees very well because it is in orbit above the earth's atmosphere. Earth bound telescopes today use adaptive optics (AO) to correct for this blurring. AO uses the turbulence information, from a guide laser in the direction of the object being viewed, to make real time correction to the image received by the CCD detectors. This method is so effective that properly instrumented earth bound telescopes can see objects as well as, or in some cases, better than the Hubble Space Telescope.

The contribution of electron devices, to these advances and others, will be presented in the context of the general objectives of astronomy.

About the Speaker

Dr. Kasprzak worked for IBM from 1965 to 1995. He obtained his PhD on an IBM Resident Fellowship in 1972 from Stevens Institute of Technology. He taught at Franciscan University from 1992

to 1996. Since 1996 he has worked in the healthcare industry, first on solid state x-ray detectors for Direct Radiography Inc.(an eventual subsidiary of Hologic Inc.), and now on large clinical chemistry analyzer instruments for Dade Behring, recently purchased by Siemens.

His work has focused on the physics and materials of electron devices. In practice he has developed reliability tests to reveal the limitations of electron devices, materials, VLSI circuits and PCBs. In 1973 he discovered the hot electron effect in very short (1.25 micron n-channel) MOSFETs.

He has taught Astronomy and Cosmology as well as Physics and Materials at Franciscan University. His experience, coupled with his interest and study of astronomy, brings a unique perspective to the application of electron devices in astronomy.

He is the founder of IEEE transactions on Device and Materials Reliability, treasurer of IEEE transactions on Semiconductor Manufacturing, a member of the Board of Directors of the International Reliability Physics Symposium and a Fellow of the IEEE.

All Welcome!

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

Time: 7:00 PM, Wednesday, April 9, 2008. Free buffet will begin at 6:15 PM.

Place: New Jersey Institute of Technology (NJIT), Room 202, ECE Center, Newark, NJ. Directions are available at <http://www.njit.edu>.

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).

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!

North Jersey Workshop and New Officers

The Section Executive Committee and guests held their end of the year Workshop on December 4th, at the Hanover Manor, East Hanover, NJ, where the new Section officers for 2008 were unanimously elected. The following 2008 elected Officers as well as the 2008 Committee, Affinity Group, Society Chapter Chairman were also appointed or reappointed as shown in the tables below. New volunteers are always welcome. Please feel free to contact the chairman of any Affinity Group or Society Chapter if you are interested in providing speakers or help with the planning of meetings this year.



Newly elected 2008 Section Officers (L-R): Russell Pepe, Secretary, Howard Leach, Member at Large, Kirit Dixit, Chairman (lower), Amit Patel, Vice Chairman 1, Seth Jakel, Member at Large, Catherine Duncan, Member at Large, Peter Donegan, Treasurer, and Sanghoon Shin, Vice Chairman 2.



Appointed 2008 Society Chapter and Affinity Group Chairs (L-R): Dr. Durga Misra, Dr. Nirwan Ansari, (lower), Saumil Vyas, (upper), Russell Pepe, Ron Quade, Dr. Richard Snyder, Keith Saracinello, Kirit Dixit, (seated), Seth Jakel, Goran Djuknic, Ken Oexle, Har Dayal, Art Greenberg, Dr. Michael Liechenstein, Catherine Duncan, and Amit Patel.



North Jersey Past Section Chairs (L-R): Art Greenberg, Dr. Michael Liechenstein, Dr. Durga Misra (seated), Dr. Richard Snyder, Howard Leach, Kirit Dixit, Anne Giedlinski (seated), Har Dayal, Dr. Nirwan Ansari, Dr. Chandra Gupta (seated), Ken Oexle, Dr. Fred Chichester, Alan Stolpen

2008 IEEE North Jersey Section Officers and Committee, Affinity Group, and Society Chapter Chairs

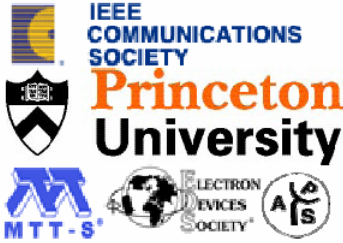
Feel free to contact any of the people below if you have questions or suggestions.

IEEE North Jersey Section Officers			
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Chairman	Kirit Dixit	kdixit "AT" ieee.org	(201) 669-7599
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CALL FOR PAPERS

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. Beside the technical paper presentations the Symposium will include tutorials, student paper poster presentations, executive panels, and exhibitions. 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)

Military Communications

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

Multimedia Applications & Networking

- Multimedia Communications
- Optical Communications & Networking
- WDM Systems

Communications Theory

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

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 (MIMO/Beamforming)
- Radio Resource Management and Interference Management
- Cross Layer Design
- Sensor, Mesh & Ad Hoc Networks
- Performance Analysis of Wireless Systems
- Ultrawideband (UWB) Communications

Prospective authors are encouraged to submit a FULL PAPER for review by December 21, 2007, in PDF format. Only original papers that have not been published or submitted for publication elsewhere will be considered. The submission process is carried through 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, will be included in the 2007 IEEE Sarnoff Symposium proceedings, and will be published through IEEEExplore. Student papers should be submitted to the Student Papers Chair [cwang@devry.edu]. Prospective tutorial presenters should contact the Tutorials Chair [mstriki@research.telcordia.com]. For more information please visit the conference web page (see below).

IMPORTANT DATES

Papers Due:February 1, 2008
 Tutorial Proposals Due:.....February 1, 2008
 Student Papers Due:.....February 1, 2008
 Notification of Tutorials Acceptance:.....February 16, 2008
 Notification of Papers Acceptance:.....February 15, 2008
 Final Version Due:.....March 14, 2008

CONFERENCE SCHEDULE

Tutorials:.....April 28, 2008
 Paper Sessions:.....April 29, and April 30, 2008
 Exhibits:.....April 29, 2008

Web page: www.sarnoffsymposium.org, Email : sarnoff.symposium@ieee.org

NJ Power Engineering Society/Industry Applications Society

Power Monitoring Solutions Seminar

The PES and IAS Chapters will sponsor a technical seminar on the topic of power monitoring solutions. The session will be held on Friday, February 22, 2008 at Automatic Switch Company, 50 Hanover Road in Florham Park, NJ.

Topics

Power Monitoring Solutions

- ✓ Why Monitor?
- ✓ What to Monitor?
 - Commercial Buildings
 - Construction
 - Universities
 - Large Industrials
 - Hospitals
 - Critical Power Systems

About the Instructor

The instructor will be Jeanne Ziobro from Square D/ Schneider Electric. Jeanne received a Bachelor of Science degree in Electrical Engineering from Lehigh University in 1991 and a Masters of Science degree in Management of Technology from Lehigh University in 2001. Jeanne has over 16 years of industry experiences including positions such as Substation Designer/ Relay Engineer at Metropolitan Edison; Relay Designer and tester, application engineer at ABB Power T&D; Protective Relay Product Line Manager at Eaton/Cutler Hammer and recently Power Management Specialist at Square D/ Schneider Electric.

The registration fee for this seminar prior to February 8th 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. Registrations after February 8th must include an additional late fee of \$25. 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 22, 2008.

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 on the left hand side of the parking lot to office entrance door.

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

Registration: Power Monitoring Solutions Seminar 2/22/2008

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 \$ _____ Add \$25 late registration after February 8, 2008

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

IEEE North Jersey Section Course Project Management

Tuesday Evening, March 11, 2008 through May 6, 2008

Eight weekly classes (March 11, 25, April 1, 8, 15, 22, 29, May 6, 2008)

USPS, NJ International Bulk Mail Center, 80 County Road, Jersey City, NJ 07097

(Checks should not be mailed to this address)

IEEE North Jersey Section thanks USPS, NJBMC for sponsoring this course at its site

The North Jersey Section IEEE is offering an evening course entitled "Project Management". Dice.com lists 5500+ Project related jobs in the New York tri-state area daily! This course will help you to break down a master project into manageable tasks, pinpoint possible solutions, and provide information to keep the project under control. Using Microsoft Project software, you will learn to accomplish various project plans. In addition, it will greatly enhance your business, communications and interpersonal skills.

You will receive the IEEE certificate of completion when you finish the course. You may wish to take two Certification exams, one in *Project Management* administered by Project Management Institute and the other in *IT Project+* by CompTIA Inc from the knowledge you learned in this course. (This is *not an exclusive PMP-PMI examination prep course*. No PDUs are issued for PMP eligibility. CEU credits would be given by IEEE)

Instructor: **Donald Hsu, Ph.D.**, has been a corporate manager for 11 years and is an experienced trainer. Since 2000, he has trained 650 people in *IT Project+*, *MS Project 2007*, *Project Management* and *Global E-Commerce* courses in eight organizations.

TOPICS

1. Explain the need for a project manager in different industries
2. Define SOW, PERT, GANTT, CPM, and Scope of the project
3. Identify the team members, resources and plan for the strategy
4. Calculate schedule, budget variances, and monitor project progress
5. Manage changes, estimates, and communications
6. Employ the use of MS Project 2007, MS Visio 2007 and related software
7. Set a baseline, import tasks from MS Excel, export Project files to MS Word
8. Create and modify custom reports, templates and combination views
9. Approve updates and conclude a project plan
10. Market global E-commerce projects
11. Present final projects from the participants

WHERE: NJ International Bulk Mail Center, 80 County Rd, Jersey City, NJ. (Checks **should not** be mailed to this address)

WHEN: 8 Tuesdays, March 11, 25, April 1, 8, 15, 22, 29, May 6, 2008, from 6:30 to 9:00 PM.

COST: IEEE (& affiliate) members \$430; Non-IEEE members \$480.

CONTACT: Donald Hsu: yanyou "AT" hotmail.com

REGISTRATION: Project Management

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

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

Name: _____ Email address _____

Non-member

IEEE Member Member #: _____ Member of _____ technical society

Employer: _____

Employer Address: _____

Home Address: _____

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

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

As soon as a completed registration form and the payment are received, you are officially registered for this course. Registration status will be emailed to you for confirmation.

I wish to receive the IEEE Completion Certificate

Signature: _____