

The



IEEE Newsletter

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

NJ VTS Chapter:

The Evolution of EVDO to Rev B

On December 12, 2007, the IEEE North Jersey Section Vehicular Technology Society Chapter will host a talk on the Evolution of EVDO to Rev B. The speaker will be Dr. Qi Bi.

About the Talk

With the deployment of EVDO Rev A high speed packet data wireless mobile systems worldwide, the stage has been set to evolve to Rev B for broadband applications. Currently, the efforts are focused on the delivery of the broadband experience with integrated and blended service. In this talk, we shall share our view of where the industry is going and what wireless experience an average user may expect to have in the near future. Our analysis will cover the improvements of Rev B when compared with Rev A.

About the Speaker

Dr. Qi Bi received his MS from Shanghai Jiao Tong University and PhD from Pennsylvania State University. After teaching at Utah State University as an assistant professor for one year, he joined Bell Laboratories in 1988 and became a Distinguished Member of the Technical Staff in 1995. Two years later, he was promoted to Technical Manager.

Dr. Bi is a recognized expert in wireless communications. He received Awards of Excellence from the Advanced Technology Lab of AT&T in 1996 and 1997, and Bell Labs President's Gold Awards in 2000 and 2002. Under his leadership, his team was recognized in innovations and was awarded the Bell Labs Innovation Team Award in 2003 by the Bell Labs Research. In 2004, he received the Speaker of the Year Award from the IEEE New Jersey Coast Section.

Based on his pioneering contributions in wireless communications, he broke ground in 2003 to become the first Chinese from the People's Republic of China to receive the prestigious Bell Laboratories Fellow Award. In 2004, he was recognized by the Chinese Institute of Engineers and was awarded the Asian

American Engineer of the Year Award during Engineers Week in the United States.

Dr. Bi is also active in technical activities. From 1998 to 1999, he served as the technical chair for the Wireless Mobile ATM Conference. From 1999 to 2000, he organized the first and the second CDMA conferences at Lucent Technologies. From 2000 to 2002, he served as the technical chair for IEEE Globecom's wireless program. In 2003, he served as the technical chair for the IEEE Wireless Communications and Network Conference. Currently, he serves as the chair and organizer for the Wireless and Optical Communications Conference.

Dr. Bi has published extensively in many technical journals and conferences and has served as editor for many technical publications. He is invited as a keynote speaker in many international conferences and has filed more than 60 US patents. He was also the New York chapter president of the Alumni Association of the Chiao Tung University from 2002 to 2006. He has been listed in Who's Who since 2003.

All Welcome!

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

Time: 7:00 PM, Wednesday, December 12, 2007. Free buffet will start at 6:30 PM.

Place: Alcatel-Lucent, 67 Whippany Rd, Whippany, NJ.

Information: Stephen Wilkowski, Lucent Technologies, (973) 386-6487, swilkowski "AT" alcatel-lucent.com, Arthur Greenberg, (973) 386-6673, ahg1 "AT" alcatel-lucent.com. Advance registration is requested.

News from IEEE Computer Society:

IEEE Computer Society Student Members Offered Access to Free Development Software

All student members who join the IEEE Computer Society are now eligible to select and download software from Microsoft. Available software includes Vista Business Edition, Visual Studio Team System, Expression Web Designer, Project 2007, Visio 2007 and Windows Server 2003. A user account with login information will be e-mailed on acceptance of an IEEE Computer Society application for student membership. For more information, and to join the Computer Society, go to <http://www.computer.org/join>. The IEEE Computer Society is the world's leading association of computing professionals with more than 90,000 members in over 140 countries. It is also the largest society within the IEEE, which is the world's largest technical professional organization.

Contact: Georgann Carter
IEEE Computer Society
(202) 371 0101

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NEWSLETTER STAFF

Editor Keith Saracinello
Business Manager..... Keith Saracinello
k.saracinello "AT" ieee.org (302) 683-7162

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IEEE NJ SECTION HOME PAGE

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

IEEE NJ SECTION NEWSLETTER HOME PAGE

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

REPORT ADDRESS CHANGES TO:

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SECTION OFFICERS

Chair Kirit Dixit
kdixit "AT" ieee.org (201) 669-7599
Vice-Chair-1..... Bhanu Chivukula
b.chivukula "AT" computer.org (732) 718-3818
Vice-Chair-2..... Amit Patel
a.j.patel "AT" ieee.org
Treasurer Dr. Sanghoon Shin
s.shin "AT" ieee.org (973) 492-1207 Ext. 22
Secretary Russell Pepe
rpepe "AT" att.net (201) 960-6796

Members-at-Large:

Pete Donegan (doneganp "AT" ieee.org)
Katherine Duncan (kb2zoo "AT" hotmail.com)
Seth Jakel (sgjakel "AT" comcast.net)

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 Communications Society: Security in the Internet: Towards Perfect DDoS Attacks, and How to Defy Them

On Wednesday, December 12, 2007, the IEEE North Jersey Section Communications Society will host a presentation titled "Security in the Internet: Towards Perfect DDoS Attacks, and How to Defy Them" by Dr. Roger Karrer.

About the Talk

Security in the Internet: for more than a decade, the problem is imminent, yet we are still far from having viable solutions! Even worse, I will argue that DDoS attacks are not yet exploiting their full potential, and show ways to "improve" the impact of DDoS attacks towards a perfect attack. Consequently, I will also propose a solution termed Edge-based Capabilities to defy such attacks. This solution advocates for a collaboration of end systems and networks. Moreover, as compared to many proposed solutions, Edge-based Capabilities provides direct incentives to all participants. Finally, I will conclude my talk with an outlook towards security in a future, clean slate Internet architecture.

About the Speaker

Roger Karrer is a Senior Research Scientist at the Deutsche Telekom Laboratories in Berlin. He received the PhD in Computer Science in 2002 from ETH Zurich. After 2 years as a PostDoc at Rice University in Houston, he joined T-Labs in 2005. His research interests include wireless mesh networks, security in networks, network protocols and architectures and multimedia streaming. Among other, he is the project leader of the Magnets project where a wireless mesh network of 100 outdoor nodes is currently deployed with heterogeneous technology. Moreover, he is involved in 3 EU projects from 2008-2011, of which one focuses on carrier-grade wireless mesh networks and two on clean slate Internet design.

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: 6:15 PM, Wednesday, December 12, 2007, refreshments will be available at 6:00 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 "AT" njit.edu) or check

<http://web.njit.edu/~ieeenj/comm.html> for the latest updates.

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@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.

- Engineering In Medicine and Biology 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@ieee.org
- WIE (Women in Engineering) Affinity Group Volunteers and Committee members needed - contact 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 c.gupta@ieee.org.

IEEE North Jersey Section Activities

December 2007

Dec. 6 – “Annual Planning Meeting and Workshop”, 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.

Dec. 6 – “Optimal Ultrasonic Pulse Compression and Synthesis for Imaging Applications” by Dr. Biao Cheng, NJ Control Systems, 5:00-6:00 PM, New Jersey Institute of Technology (NJIT), Room 202, ECE Center, Newark, NJ. Professor Timothy Chang, changtn@njit.edu, (973) 596-3519.

Dec. 11 – “Applications of Differential Equations in Ultrasound Image Processing and Analysis” – by Greg Slabaugh, NJ SMC Chapter, 7:00 PM, New Jersey Institute of Technology (NJIT), Room 202, ECE Center, Newark, NJ. Dr. Mike Liechenstein, (973) 471-0721, m.liechenstein@ieeee.org.

Dec. 12 – “Security in the Internet: Towards Perfect DDoS Attacks, and How to Defy Them” – by Dr. Roger Karrer, NJ Communications Chapter, 6:15 PM, New Jersey Institute of Technology (NJIT), Room 202, ECE Center, Newark, NJ. Dr. Nirwan Ansari (973) 596-3670 (nirwan.ansari@njit.edu) or check <http://web.njit.edu/~ieeenj/comm.html> for the latest updates.

Dec. 12 – “Engineers Meet: Unemployed Engineers” - NJ PACE, 6:30 – 8:30 PM, Clifton Memorial Library, 292 Piaget Ave, Clifton, NJ. Richard F. Tax, (201) 664-6954, rftax@verizon.net, Paul Ward, (973) 790-1625, PWard1130@aol.com, Mike Rinaldi, (973) 515-8195, MikeRinaldi@aol.com.

Dec. 12 – “EV-DO Rev. B” – by Qi Bi, NJ VTS Chapter, 7:00 PM, Alcatel-Lucent, 67 Whippany Rd, Whippany, NJ. Stephen Wilkowski, Lucent Technologies, (973) 386-6487, swilkowski@alcatel-lucent.com, Arthur Greenberg, (973) 386-6673, ahg1@alcatel-lucent.com. Please see the December Newsletter for details.

Dec. 13 – “Power Control in Wireless Communication Networks via Estimation of Signal Interference and Optimization of Signal to Interference Ratio” by Dr. Zoran Gajic, NJ Control Systems, 5:00-6:00 PM, New Jersey Institute of Technology (NJIT), Room 202, ECE Center, Newark, NJ. Professor Timothy Chang, changtn@njit.edu, (973) 596-3519.

Dec. 14 – “Utility Distribution Systems Technical Series – Overcurrent Protection Seminar”, NJ PES/IAS, 9:00 AM to 2:00 PM, PSE&G - Hadley Road Facility, 4000 Hadley Road, South Plainfield, NJ. Ronald W. Quade, PE, (732) 205-2614 or rwquade@ieeee.org.

Dec. 20 – “Introduction to Product Focus” – by Donald A. Borcharding, NJ Computer and EMS Chapters, 7:00 PM, Public Meeting Room, Morris County Library, 30 E. Hanover Ave, Whippany, NJ, (973) 285-6930. Seth Jakel (973) 731 1902, (973) 820-1865, sgjakel@comcast.net or Howard Leach (973) 540-1283, h.leach@ieeee.org.

Upcoming Meetings

Jan. 2 – “NJ Section Meeting”, 6:30 PM, “Executive Committee Meeting” - 7:00 PM, ITT, 77 River Rd, Clifton, NJ. Russell Pepe at rpepe@att.net.

Jan. 31 – “Develop More Products Without More Resources”, 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.

Members and Non-Members Welcome

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Thursday, December 6th
6:00 - 8:00 p.m.

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NJ Control Systems Chapter:

Optimal Ultrasonic Pulse Compression and Synthesis for Imaging Applications

On December 6, 2007, the IEEE North Jersey Section Control Systems Chapter will host a presentation titled "Optimal Ultrasonic Pulse Compression and Synthesis for Imaging Applications." The speaker will be Dr. Biao Cheng.

About the Talk

Ultrasound imaging is a non-invasive/non-ionizing tool in medical diagnostics. In recent years, the use of Quantitative Ultrasound System (QUS) has become more widespread due to its potential advantages over CT, MRI, and X-ray in terms of cost, size, safety, and detection resolution. A major consideration of ultrasound imaging and QUS is the resolution. Traditionally, improved resolution is achieved by increasing the operating frequency at the expense of reduced penetration and higher cost. Furthermore, successive signal packets tend to interfere with each other due to transducer transients which further limit the detection resolution. This talk introduces a method to compress acoustic pulses to pre-specified short durations. Also referred to as the Low Transient Pulse (LTP) method, it can be a key enabling factor for better imaging/detection performance for ultrasound diagnostic systems. The LTP method is an innovative technique to produce a short duration and low transient acoustic pulse by means of pre-shaping the excitation signal. It has been experimentally verified that the LTP method produces a better detection resolution and simpler hardware implementation due to less phase interference and a less complex algorithm. No modulation circuits or regenerative loops are necessary to synthesize the drive signal. Within the quantitative ultrasonography context, the LTP method improves detection resolution by minimizing aliasing of signals transmitted from soft and hard tissues.

About the Speaker

Biao Cheng received the BS degree in Electrical Engineering from Rutgers University. He received his MS and PhD degrees in Electrical Engineering from New Jersey Institute of Technology. Currently he is a postdoctoral fellow at the department of Electrical Engineering of New Jersey Institute of Technology. His research interests and ultrasound imaging.

Time: 5:00 PM to 6:00 PM, Thursday, December 6, 2007.

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: Professor Timothy Chang, changtn "AT" njit.edu, (973) 596-3519.

NJ Control Systems Chapter:

Power Control in Wireless Communication Networks via Estimation of Signal Interference and Optimization of Signal to Interference Ratio

On December 13, 2007, the IEEE North Jersey Section Control Systems Chapter will host a presentation titled "Power Control in Wireless Communication Networks via Estimation of Signal Interference and Optimization of Signal to Interference Ratio." The speaker will be Dr. Zoran Gajic.

About the Talk

Signal power is one of the most important commodities in signal transmission over communication channels. During the last ten years, the problem of efficient mobile power control in wireless communication networks has become a central research problem that has resulted in several hundred journal and conference papers. It has recently attracted broad interest from experienced control engineering researchers. For high quality of signal transmission a high signal power to interference power ratio is required; but in wireless channels, increasing the signal power of one mobile increases interference to other mobiles using the same communication channel (co-channel users). Even more, high mobile powers drain mobile batteries quickly and require frequent battery recharging. The search for efficient mobile power distribution schemes leads to several interesting estimation- and optimization-type control problems. In this talk, we present techniques for optimal power control based in wireless communication networks based on estimation of interference (and the quantity called the channel variation). The interference is estimated using the H-infinity filter, however, any estimator can

be used for such a purpose. In addition, an optimal performance criterion is minimized in the sense that the desired signal to interference ratio is as close as possible to its target value for all users. Both user-centric and network-centric objectives are met under the considered problem formulation. The results are also presented for the corresponding stochastic power control problem under Gaussian white noise assumption, in which case the Kalman filter is used and the signal variance minimized. These considered algorithms are distributive in nature requiring only local information.

About the Speaker

Zoran Gajic is a Professor of Electrical and Computer Engineering at Rutgers University. He has been teaching electrical circuits, linear systems and signals, controls, and networking courses at the same school since 1984. Dr. Gajic has been serving since 2003 as the Graduate ECE Program Director. His research interests are in controls systems, wireless communications, and networking. He is the author or coauthor of more than seventy journal papers, primarily published in IEEE Transactions on Automatic Control and IFAC Automatica journals, and seven books published by Academic Press, Prentice Hall, Marcel Dekker, and Springer Verlag. His textbook *Linear Dynamic Systems and Signals*, Prentice Hall, 2003 has been translated into the Chinese Simplified language. His book on Lyapunov Equation in Systems Stability and Control, originally published by the Academic Press in 1995, will be republished by Dover Publications in 2008. Professor Gajic has delivered three plenary lectures at international conferences and presented more than one hundred conference papers, and served on the editorial board for several journals. Zoran Gajic received Dipl. Ing. (5 year program) and Mgr. Sci. (2 year program) degrees in Electrical Engineering from the University of Belgrade, and an MS degree in Applied Mathematics and PhD in Systems Science Engineering from Michigan State University in 1984.

Time: 5:00 PM to 6:00 PM, Thursday, December 13, 2007.

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: Professor Timothy Chang, changtn "AT" njit.edu, (973) 596-3519.

NJ SMC Society:

Applications of Differential Equations in Ultrasound Image Processing and Analysis

On Tuesday, December 11, 2007, the NJ Systems, Man & Cybernetics (SMC) Chapter will be hosting a seminar at NJIT on the topic noted above. Greg Slabaugh, a Research Scientist at Siemens Corporate Research, will be the presenter.

About the Talk

Ultrasound is one of the most commonly used medical imaging modalities. Compared to other modalities such as x-ray, magnetic resonance (MR), and positron emission tomography (PET), ultrasound scanning has many advantages, as it is fast, portable, relatively low cost, and presents virtually no risk to the patient when properly administered. However, the primary limitation of ultrasound is image quality. Ultrasound images are corrupted by speckle, an interference pattern resulting from the coherent accumulation of random scattering in a resolution cell of the ultrasound beam. The speckle appears as a spatially correlated pattern and has a detrimental effect on the image quality, and therefore poses a challenge to a sonographer's interpretation of the image as well as to medical imaging applications like segmentation and registration. This presentation will focus on several different applications in ultrasound image processing and analysis. The presentation will cover present methods used to enhance ultrasound image quality to decrease the effect of speckle while maintaining the diagnostic features of the image. Additionally, ultrasound-specific segmentation and registration techniques will be discussed, based on mathematical modeling of speckle, for anatomic delineation and motion stabilization. All of these methods rely on differential equations, which result from deriving energy minimizing flows in various contexts. Time permitting, the speaker will also briefly describe some joint registration/segmentation work and tracking of guide wires in video, also built on the framework of differential equations.

About the Speaker

Dr. Greg Slabaugh is a Research Scientist at Siemens Corporate Research, located in Princeton, NJ. He earned an MS (1998) and a PhD (2002) in Electrical Engineering at the Georgia Institute of Technology under the supervision of Dr. Ronald W. Schafer, and a BS (1994) in Engineering Physics from the University

of Michigan. He is currently an Associate Editor of IEEE Signal Processing Magazine, and co-organized the International Workshop on Computer Vision for Intravascular Imaging held in conjunction with MICCAI 2006. He is also currently a guest Associate Editor of a special issue on Intravascular Imaging for IEEE Transactions on Information Technology in Biomedicine. Dr. Slabaugh's main research interests are in computer vision, image processing, and computer graphics. More specifically, he is interested in medical image processing, 3D reconstruction from multiple images, new view synthesis, image and surface registration, tracking, segmentation, geometric modeling, adaptive filtering, PDEs, radial basis functions, deformable surfaces, and level set methods.

All Welcome!

You need not be a member of IEEE to attend, and there is no charge for admission. Light refreshments will be served starting at 6:45 PM.

Time: 7:00 PM (light refreshments at 6:45 PM), Tuesday, December 11, 2007.

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. Mike Liechenstein, (973) 471-0721, ([m.liechenstein "AT" ieee.org](mailto:m.liechenstein@at.ieee.org)). Please RSVP and check the electronic newsletter for any changes.

NJ Computer and EMS Chapters: **Introduction to Product Focus**

On Thursday, December 20th, 2007, the IEEE North Jersey Section Computer Society and Engineering Management Chapters will host a presentation titled "Introduction to Product Focus" by Donald A. Borcharding.

About the Talk

Development teams are challenged to develop more products, in a shorter timeframe with the same or fewer resources. As we all know this is a difficult challenge and if not properly addressed will create a fast paced, dynamic and often chaotic, frustrating environment.

A new solution is emerging which looks at how well the organization's approach stacks up against the challenges of their development environment and introduces a new term called Product Focus.

Product Focus is the idea that organizations tend to exhibit a consistent

behavior when planning and executing projects and as you would expect, organizations are most effective when their Product Focus matches their development environment.

All attendees will have an opportunity to complete a survey to identify your organization's Product Focus. An overview on how to interpret your Product Focus will be provided along with methods and practices to shift and change your focus to better match the environment. Recently compiled industry results will be provided to help you determine whether your organization is consistent with similar size companies.

About the Speaker

Donald A. Borcharding has a BSEE degree from the University of Missouri at Rolla and over 20 years experience in new product development. He has successfully optimized systems, software, electrical and mechanical engineering performance in the medical device, semiconductor, defense, marine and broadcast video industries in both small and medium size organizations.

He founded NexSummit, LLC to help organizations reduce development cost and improve time to market. His primary focus has been to understand an organization's Product Focus versus their development environment to make improvements that provide the greatest benefit.

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, Thursday, December 20th, 2007, pre-meeting buffet starting at 6:00 PM.

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

Information: Seth Jakel (973) 731 1902, (973) 820-1865, [sgjakel "AT" comcast.net](mailto:sgjakel@at.comcast.net) or Howard Leach (973) 540-1283, [h.leach "AT" ieee.org](mailto:h.leach@at.ieee.org).

Life Grade Member Luncheon by Howard Leach and Carl Sulzberger

Twenty-five Life Grade members attended a luncheon on October 25th at the Hamilton Park Conference Center, Florham Park, NJ. Ken Oexle, Section IAS & Awards Committee Chair and organizer of the event, introduced Carl Sulzberger, author/editor for the history articles published in the IEEE Power & Energy magazine. He gave an update of the Section's efforts to establish an IEEE Milestone in Electrical Engineering and Computing covering the Edison National Historic Site in West Orange, NJ. He stated that the IEEE History Committee has approved the Milestone and that the last approval required will be voted on by the IEEE Executive Committee on November 13th.

Carl Sulzberger then introduced the speaker, Charley Hummel, who gave an excellent talk about Edison using interesting artifacts from his own collection. Carl Sulzberger provided the following background about the speaker.

"Charley Hummel has been interested in Thomas Alva Edison for as long as he can remember. Perhaps this stems from the fact that Thomas A. Edison, Inc. was a major manufacturer and employer in this area for many years up until the sale of the company to the McGraw Electric Company in 1957 and the progressive closing of manufacturing facilities at the site in the early 1960s. Charley has collected Edison artifacts and memorabilia for at least 45 years and has what is perhaps the largest and most complete privately-owned collection of Edisonia in the world. He goes to antique phonograph and Edisonia shows and sales meets all over North America and in Europe. His current trip to Europe is for just this purpose.

The many rare Edison artifacts now on display on the lower level of the IEEE Operations Center in Piscataway are mostly items that Charley has lent to the IEEE for the display. We should encourage North Jersey Section members to visit the Operations Center to see this outstanding display. If they can't visit it, they can view it at:

http://www.ieee.org/web/aboutus/history_center/historical_resources/exhibits.html

I believe that Charley is officially retired, but he presently serves as a consultant to the Charles Edison Fund, which is based in Newark. He is the Museum Coordinator for the Fund, a position in which he works with about 80 museums, chiefly in North America. The Charles Edison Fund owns a huge number of Edison artifacts and papers, some of which are loaned or transferred to these museums for display. Charley administers and coordinates this activity.

The Charles Edison Fund was established as a philanthropic fund by Charles Edison, one of the sons of Thomas Edison and a former Secretary of the Navy and Governor of New Jersey. Its three missions are: (1) to promote and support medical research, (2) to promote science education for young people, and (3) to preserve and further the legacy of Thomas Edison. The fund manages upwards of \$20,000,000 and actively works in all three areas. The Fund has produced a number of educational programs involving things like educational DVDs containing stories of young Tom Edison and science, workbooks, and seminars. Charley is most active in the area of preserving and furthering the legacy of Thomas Edison. His activities also include working with the West Orange Edison Historic Site on behalf of the Charles Edison Fund. What many people do not know is that the Fund has provided many artifacts to the Site and that the Fund provides funding, guidance, and support for Site activities, including funding for some of the ongoing capital improvements at the Site."



L-R: Charley Hummel, speaker, Har Dayal, Mike Miller, Prof Gerald Whitman, Won Kim, Kirit Dixit, Section Chair, John Hyfantis, Naz Simonelli, Al Stolpen, Dr. Michael Lichenstein, and Carl Sulzberger



L-R: John Baka, Anne Giedlinski, Ken Hendrix, John Redmon, Herb Blaicher, Virginia and Carl Sulzberger, and Charley Hummel, speaker

L-R: Jerry Minter, Les Faulkner, Ram Rathore, Steve Mallard, Ken Oexle, and Howard Leach



NJ Consultants' Network:

Annual Planning Meeting and Workshop

On Thursday, December 6, 2007, the IEEE Consultants' Network of Northern NJ will conduct its annual Planning Meeting and Workshop.

About the Talk

The combined November/December meeting of the IEEE Consultants' Network is intended as a strategic planning event for Network members and for consultants who are considering membership in the Consultants' Network.

The main purpose of the meeting will be to discuss ideas and expectations for the various Network functions in the upcoming year. Results of the annual election of officers will be announced at the time.

This Working Session is traditionally an open, informal forum to determine what the IEEE-CNNNJ is doing right or wrong. The floor will be open to suggestions for improvements, recommendations of new Network directions and activities and proposals of new feature topics for the general meetings.

The major functions performed by the IEEE Consultants' Network that will be discussed are:

- Rethinking focus of our group: member-to-member networking versus group publicity efforts.
- Group Marketing & Image Building - CNNNJ Website, tri-fold and postcard mailing, CNNNJ's free consultant referral service, and alternate publicity methods.
- Monthly General Meetings - Suggested feature topics will be discussed.
- Member Networking - Member presentations and alternate general meeting formats that improve networking.

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. Refreshments and pastries will be available during the course of the evening. As always during the year-end workshops, there will be no pre-meeting dinner for members.

Time: 7:30 PM, December 6, 2007.

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

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

NJ Section PACE:

Engineers Meet: Unemployed Engineers

On Wednesday, December 12, 2007, the North Jersey Section Professional Activities Committee will meet to discuss the unemployment situation for engineers and members of the engineering community. You do not have to be unemployed to attend. All jobs are being threatened.

About the Meeting

This meeting provides an opportunity to meet and discuss the unemployment situation. High on the IEEE-USA list of subjects is unemployment and the displacement of American citizens by foreign workers imported under the H-1B legislation. This year the legislation increased the number of H-1B workers to about 200,000 while citizens have been discarded and replaced by foreign workers. And, please do not confuse this as an "immigration" issue. This is all about money and Wage Busting.

We need input and views from the

unemployed on this important issue. We will also like you to confirm your attendance via e-mail or telephone. When we reach a suitable attendance we will invite the press to give visibility to the employment situation here in New Jersey.

Our PACE meeting is open to discuss professional needs. PACE provides the opportunity to meet, address, discuss and perhaps improve the professional aspects of the engineering profession. We should take advantage of the opportunity to have a place and time to meet. Invite your associates to join us.

According to PACE Leaders "Employment Assistance and Career Development are high on their list of priorities. More on these projects can be found at www.ieeeusa.org.

"Today's Immigrant - Tomorrow's Victim" see

www.aea.org/professionallissues.htm

All Welcome!

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

www.aea.org
www.ieeeusa.org/policy/care/
www.ieeeusa.org,
www.programmersguild.org
web.njit.edu/~ieeenj/,
www.asme.org/sections/northjersey

Time: 6:30 PM to 8:30 PM, Wednesday, December 12, 2007.

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

Information: Richard F. Tax, (201) 664-6954, rtax@verizon.net, Paul Ward, (973) 790-1625, PWard1130@aol.com, Mike Rinaldi, (973) 515-8195, MikeRinald@AT.aol.com.

NJ Power Engineering Society/Industry Applications Society
Utility Distribution Systems Technical Series
Overcurrent Protection Seminar

The PES and IAS Chapters will sponsor a technical seminar on the topic of utility distribution systems. The session will be held on the topic of Overcurrent Protection. The session will be held on Friday, December 14, 2007, at PSE&G's Hadley Road Facility, 4000 Hadley Road, South Plainfield, NJ. **(Please note this is a change of location from prior seminars.)**

Topics

- ✓ Protective Principles
- ✓ Protective Devices:
 - Fuses
 - Breakers
 - Sectionalizers
 - Reclosers
- ✓ Device Coordination:
 - Fuse – Fuse
 - Current Limiting Fuse
 - Fuse – Recloser
 - Recloser - Recloser
- ✓ Protective Systems & Philosophies:
 - Loop and Radial Schemes
 - Switch/Recloser Schemes
- ✓ Underground and Overhead

About the Instructor

Paul Pearce is a licensed Professional Engineer in the State of New Jersey. Paul has worked as a Regional Power Systems Engineer (Applications Engineer) for Cooper Power Systems for seven years. Prior to that Paul spent 9 years as a Distribution Field Engineer/Supervisor at Atlantic Electric and 1 year and 3 years as a Standards Engineer at Atlantic Electric and GPU Energy respectively.

The registration fee for this seminar prior to November 30th 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 November 30th 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, December 14, 2007.
Place: PSE&G - Hadley Road Facility, 4000 Hadley Road, South Plainfield, NJ 07080-1192
Directions: Route 287 to Exit 5
If Southbound make right onto Stelton Road; If Northbound make left onto Stelton Road
Make first left onto Hadley Road
Pass the two lights and building is on the left; look for PSE&G sign on left
Information: Ronald W. Quade, PE, (732) 205-2614 or rwquade "AT" ieee.org

Registration: Overcurrent Protection - Cooper Power Systems 12/14/2007

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 November 30, 2007

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