



The IEEE

Newsletter

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

The Conversion of Solar Energy to Electricity - An Evaluation of the Technology

On October 26, 2000, the power systems group at NJIT will host a talk on "The Conversion of Solar Energy to Electricity - An Evaluation of the Technology." The speaker will be Mr. Harry Roman.

About the Talk

The engineering challenges of converting sunlight directly into electricity will be discussed. Some representative samples of the technology will be shown for discussion.

The following major topical areas will be covered:

- The nature of sunlight and its useful application
- The history of photovoltaic technology and PSE&G's involvement
- The basic photovoltaic system and review of state-of-the-art technology
- System performance and design concerns
- Cost projections and future technological changes
- Comparisons with other solar technologies

About the Speaker

Harry T. Roman is a Senior Technology Consultant for PSE&G with over 30 years of experience in solving engineering and research problems in all aspects of electric power production and delivery. He is PSE&G's technical expert on solar and photovoltaic technology applications, having followed the development of this technology and managed company demonstration installations for 25 years.

Mr. Roman has a BS degree in Electrical Engineering from the Newark College of Engineering/NJIT (1970); and an MS degree in Environmental Engineering (1974) from the same institution. He has published over 260 technical papers, articles, several books and book chapters, as well as numerous lectures and presentations. Mr. Roman is also an inventor, having received 8 US

patents. As a member of the adjunct graduate faculty at the New Jersey Institute of Technology (NJIT), he has for 8 years taught courses in managing R&D projects and new product development.

Time: 6:00 PM Thursday October 26, 2000.

Place: NJIT, Room 202, ECE Building, Newark, NJ. Directions are available at www.njit.edu.

Information: Dr. Walid Hubbi (973) 596 3518.

Sloan Industry Center Fellowships

The Alfred P. Sloan Foundation is seeking interested academic candidates for Sloan Industry Center Fellowships. The Fellowships provide funding for both recent PhD's and faculty to undertake research at one of fifteen Sloan Industry Centers located at leading universities in the United States. Opportunities include Centers studying the semiconductor, telecommunications, and information storage industries at UC Berkeley, Columbia, and UC San Diego, respectively.

The deadline for nominations is October 1; however, prospective Fellows should contact Center Directors by September 1 if they wish to be considered for nomination. Details are available at

<http://www.sloan.org>

NJ Computer Chapter:

XML Secrets for Managers and Engineers

On September 14th, 2000, the IEEE North Jersey Section Computer Chapter will host a presentation on "XML Secrets for Managers and Engineers" by Eli Rohn.

About the Talk

The talk will cover, as a minimum, the following subjects:

- What is XML
- Hype and Reality Check
- Benefits and Risks
- Existing and Emerging Tools
- Live Demonstrations
- Research Problems Relating to XML

About the Speaker

Eli Rohn is the Managing Member of Rohn Consulting LLC. He renders consulting services to the Fortune 500 companies on top of teaching Computer Science and pursuing his PhD at NJIT. Eli has published two technical books and over 30 professional articles. Eli, who started as a programmer, has over 15 years of experience with Mainframes, PCs, Networks, and has been involved with Internet technology since 1994.

All Welcome!

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

Time: 7:00 PM, Thursday, September 14, 2000.

Place: Dialogic, Inc., 1515 Route 10 (East bound from Route 202), Parsippany, NJ.

Information: Howard Leach, (732) 594-2911, or h.leach@ieee.org.

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Deadline for receipt of material is the 1st of the month preceding the month of publication. All communications concerning editorial and business matters, including advertising, should be sent to the Business Manager via e-mail at k.saracinello@ieee.org or to *The IEEE Newsletter*, c/o Keith Saracinello, 25 Messenger Ln, Ringoes, NJ 08551, (732) 562-6472.

IEEE NJ SECTION HOME PAGE

<http://www-ec.njit.edu/~ieeenj/>

IEEE NJ SECTION NEWSLETTER HOME PAGE

<http://www-ec.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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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 Wayne Owens at (201) 767-3400, ext. 226, wowens@crestron.com.

VTs Chapter:

Wideband Linear Power Amplifiers for cdma2000

On September 28, 2000, the North Jersey Chapter of the IEEE Vehicular Technology Society will present a talk on "Wideband Linear Power Amplifiers for cdma2000." The speaker will be Dr. J. R. Cruz who is currently with the School of Electrical and Computer Engineering at the University of Oklahoma.

About the Talk

The efficient operation of a linear power amplifier (LPA) often results in enhancing the LPA's inherent *nonlinear* behavior. This causes generation of co-channel and adjacent channel interference due to intermodulation distortion (IMD) and spectral regrowth of the sidebands. These deleterious effects are of great concern in present second-generation cellular systems such as IS-95. However, an LPA's nonlinear behavior will have an even greater impact in the new wideband third generation cellular systems such as cdma2000.

Compensation (linearization) allows an LPA to operate efficiently while mitigating the effects of its nonlinear behavior. Two of the more popular compensation techniques are feedforward linearization and digital baseband predistortion. A feedforward linearizer is broadband and provides a high level of linearity but it is less efficient than other compensation schemes. The feedforward linearizer suffers from losses in its delay paths, couplers, and auxiliary amplifier. The more efficient digital baseband predistorter is potentially capable of providing good broadband operation. However, many of the reported digital baseband predistorters operate at a nominal bandwidth of less than 30 kHz.

In this talk, we review the various techniques currently used to compensate wideband power amplifiers and present some new results on a digital baseband predistorter based on the "fixed point" approach. Link performance for a perfectly linear high power amplifier (HPA), nonlinear HPA, and compensated HPA are compared using a cdma2000 forward link simulator developed at the University of Oklahoma. The fixed-point predistorter reduces spectral regrowth of the sidebands caused by using a nonlinear HPA by about 7 dB within 1.5 MHz of the carrier frequency.

About the Speaker

J. R. Cruz received a BS degree from the University of Porto, Portugal, along with MS and PhD degrees from the University of Houston, Houston, TX, in 1974, 1977 and 1980, respectively, all in

electrical engineering.

From 1980 to 1981 he was with Computer Sciences Corporation at the Johnson Space Center in Houston, TX, and from 1981 to 1982 with Motorola, Inc., as a Project Engineer in the Research Department of the Mobile Products Division, Ft. Worth, TX. In 1982 he joined the University of Oklahoma, Norman, OK, where he is currently Professor of Electrical and Computer Engineering, and Director of the Communications Signal Processing Laboratory (CSPLab). His current research interests include applications of signal processing to wireless communications and magnetic storage. He has published over 90 papers on the above and related areas and holds several patents in the area of coding and detection for digital recording systems.

Prof. Cruz is a member of Eta Kappa Nu, Sigma Xi, Phi Kappa Phi, American Association for the Advancement of Science, and a Fellow of the Radio Club of America. He serves as Editor of the *IEEE Transactions on Vehicular Technology*, and is a member of the Board of Editors for the *International Journal of Wireless Information Networks* and the *ACM/Baltzer Journal on Wireless Networks*. He received the 1995 Outstanding Service Award from the IEEE Vehicular Technology Society.

Prof. Cruz was the Chairman of the Research Council of the University of Oklahoma from 1996-1997, and is currently a member of the Board of Directors of the IEEE Vehicular Technology Society and its Executive Vice-President.

All Welcome!

You do not have to be an IEEE member to attend. Bring your friends. Snacks will be provided.

Time: 7:00 PM, Thursday, September 28, 2000.

Place: Fairleigh Dickinson University, River Road, Teaneck, NJ. Muscarelle Building. Room to be announced. Take Route 4, get off at River Rd. Go to main parking lot. Park near buildings. Go up stairs to brown brick building. Signs will list room number for talk.

Information: Mel Lewis, 201-692-2347, or Art Greenberg, 973-386-6673.

North Jersey Section Activities September 2000

Sept. 6—"NJ Section Executive Committee Meeting" – 7:00 PM, ITT, 100 Kingsland Road, Clifton, NJ. Wayne Owens at (201) 767-3400 ext. 226 or wowens@crestron.com.

Sept. 6-8 – "IEEE Sixth International Symposium on Spread Spectrum Techniques & Applications" – Sheraton Tara, Parsippany, NJ. See <http://www.ccspr.njit.edu/isssta.html> for details.

Sept. 7—"2000 MTT/AP Symposium and Mini-Show" – MTT-S/AP-S Chapter, 10:00AM - 7:15PM, Hanover Marriott, Whippany, NJ. Kirit Dixit (201) 445-2981 (RF Electronics) or Willie Schmidt (973) 492-0371.

Sept. 14—"XML Secrets for Managers and Engineers" - NJ Computer Chapter, 7:00 PM, Dialogic Inc, 1515 Route 10 East, Parsippany, NJ. Howard Leach, (732) 594-2911, or h.leach@ieee.org.

Sept. 21—"Applications of High Speed Transfer Switches" - NJ IAS/PES Chapters, 7:00 PM, Dialogic Inc, 1515 Route 10 East, Parsippany, NJ. Ken Oexle 973-386-1156.

Sept. 22—"Electromagnetic Compatibility Seminar: Principles and Applications" - NJ IAS/PES Chapters, 9:00 AM to 4:00 PM, Smiths Industries, 7-9 Vreeland Road, Florham Park, NJ. R. Vittal Rebbapragada, PE, (609) 720-3209 or r.rebbapragada@ieee.org.

Sept. 28—"Bergen Generating Station Tour" - NJ Consultants' Network, 5:30 PM, Bergen Generating Station, Ridgefield Park, NJ. Robert Walker (973) 728-0344 or www.TechnologyOnTap.org.

Sept. 28—"Wideband Linear Power Amplifiers for cdma2000" - NJ VTS Chapter, 7:00 PM, Fairleigh Dickinson University, Teaneck Campus, Muscarelle Building, NJ. Mel Lewis (201) 692-2347 or Art Greenberg (973) 386-6673.

Upcoming Meetings

Oct. 4—"NJ Section Executive Committee Meeting" – 7:00 PM, ITT, 100 Kingsland Road, Clifton, NJ. Wayne Owens at (201) 767-3400 ext. 226 or wowens@crestron.com.

Oct. 19—"E-Commerce Driving Business Models and Supply Chain Management " - NJ Computer and IAS , 7:00 PM, Dialogic Inc, 1515 Route 10 East, Parsippany, NJ. Ken Oexle (973) 386-1156.

Oct. 26—"The Conversion of Solar Energy to Electricity – An Evaluation of the Technology" – NJIT Power Systems Group, 6:00 PM, NJIT, 202 ECE Center, Newark, NJ. Dr. Walid Hubbi (973) 596 3518.

Members and Non-Members Welcome

PLEASE POST

2000-2001 Student Activities Kickoff

Welcome back to the beginning of a new year of student activities for the North Jersey Section. This year promises to be better than last with more activities and events. Some are familiar annual events and some are brand new. We hope you and your student branches will be participating in all of these events throughout the 2000-2001 academic year. Also since the year is just getting started, it is a good time for a refresher on what your branch must be doing to be recognized by the IEEE. Information about IEEE, student branch bylaws and forms to fill out is available on the website given below.

To start off with, if you have not had elections yet, it would be a good idea to hold them and report to IEEE with the officer election form. Also coming up is a leadership workshop that new (or potentially new) officers can attend to get essential training on running a branch. Your branch should fill out an annual plan of events in the fall and an annual report in the spring. Part of the reporting is on membership which qualifies the branch for per member rebates. Its free money for turning in the right forms by the right time. Speaking of money, your branch should also plan fundraisers for basic expenses.

So what's happening this year? Lots of things !! Here is a rough calendar for the four major events planned for the North Jersey area for 2000-2001. Details of the event's exact location, date, time, directions, and registration will become available on the SAC website below.

1. Student Leadership Training Workshop. This free workshop is planned for early October at NJIT in Newark, NJ.
2. Professional Skills Development Workshop. This workshop is planned for early November.
3. Paper Presentation Contest. This contest(\$) is planned for mid February/early March at FDU in Teaneck, NJ.
4. Digital Road Rally. This contest (\$) is planned for early to mid April and will be a virtual web/email based event.

What is happening really soon? The MTT-AP 15th annual symposium and mini-show on Microwave and Wireless Communication in the New Millennium will be held on Thursday, September 7, 2000 at the Hanover Marriott in Whippany, NJ. This event is free and is looking for student volunteers to help out with registrations and exhibits. Contact

Kirit Dixit at 201-445-2981.

Last, but not least, the SAC and GOLD committees are looking for volunteers who might be graduating soon and would like to help out in the North Jersey Section. To find out how you can help, contact Amit Patel at 973-284-2708 or a.j.patel@ieee.org and visit the new website at

http://ewh.ieee.org/r1/north_jersey/sac

Associate Members

It's time to advance to a higher grade. You may be qualified for Member grade or Senior Member grade. To advance to Member grade, you just have to fill out a form. No references are required. To become a Senior member, you need ten year of experience. A Bachelors degree counts for three of those years and Masters and Doctors degrees each count for one more year. You can get information and the forms by contacting: Don Weinstein, Kulite Semiconductor, One Willow Tree Road, Leonia, NJ 07605-2239, (201) 461-0900 Ext 234, mornings, FAX (201) 461-0990, email: don@kulite.com. Include your mailing address with your request.

IEEE Vehicular Technology Conference

The IEEE Vehicular Technology Society will hold its Fall 2001 Conference on October 6-11, 2001 in Atlantic City. It is one of the major international mobile communications conferences in the world and will be hosted by the North Jersey chapter. Information about the conference is available at www.fallvtc2001.org.

Companies that are interested in sponsorship should contact Steve Wilkowski at swilkowski@lucent.com.

The VT Conference Committee Wants You!! Looking for Volunteers, Sponsors, Exhibitors

The IEEE North Jersey Section is hosting the Fall 2001 Vehicular Technology Conference in Atlantic City, NJ from October 6-11, 2001. And now's your chance to get involved.

Have you ever wondered how a conference comes together? How speakers, tutorials, meals, and many other activities are smoothly integrated? How to produce a powerful technical program of international caliber? How to advertise your company's name on the coffee cups during the lunches and breaks?

Then this is the deal for you. The conference committee is issuing an open call for volunteers to help man its sub-committees. Currently the following have some openings: local arrangements, banquet, publicity, publications, registration, special/social events, transportation, and many others.

But it doesn't stop there. There are special discounts for student volunteers and sponsoring companies. What better way for your organization to get its name out to hundreds of people from worldwide in the mobile communications arena than by becoming Platinum, Gold, or Silver sponsors? You can even tailor your sponsorship to meet your advertising needs. This includes getting tables or floor space to exhibit YOUR products and services to those people with the purchasing power or an all electronic advertisement on the website.

Even students can get involved. There is a significant student admissions discount and does not require any society affiliations. We are also looking for students to man the registration desk and take on other activities. Universities are also welcome to become sponsors.

How can you find out more and get involved? Contact conference chair Art Greenberg at a.h.greenberg@ieee.org or (973) 492-1207, and Industry Liaison/Exhibits chair Stephen Wilkowski at swilkowski@lucent.com or (973) 386-6487. Check out the website at <http://www.fallvtc2001.com/index.htm>.

NJ PES/IAS:

Applications of High Speed Transfer Switches

The IEEE North Jersey Chapters of IAS/PES will host a discussion on "High Speed Transfer Switches" on Thursday September 21st. Ronald W. Quade, PE, Anthony J. Pinkey and William G. Edwards will lead this discussion.

About the Talk

The need for reliable power to critical loads has been widely publicized in recent years.

With improvements in solid-state power electronics, we've seen the expanded application of the digital static transfer switch (DSTS) in local applications. The DSTS is a high efficiency, open transition switch that transfers critical loads between two (or more) AC power sources. The switch monitors all sources and based upon user defined parameters performs a sub-cycle transfer from the preferred source to one of the alternate sources. Since the switching is an open transition (break-before-make) transfer, the need for sophisticated and expensive paralleling relaying is circumvented. The switching action occurs in a fraction of a cycle – too fast to be noticed by the critical loads. Since the DSTS has no moving parts, its reliability is high and its maintenance costs low.

For facility wide applications, medium voltage high-speed transfer switches have been applied. These switches consist of vacuum reclosers with the same high-speed sensing controls and logic as the DSTS. Where loads are too numerous and dispersed for the DSTS, the medium voltage transfer switch applied at the primary voltage has proven to be an excellent alternative.

This discussion will touch on several possible applications of high-speed transfer switches. In some situations, independent utility sources are available - the opportunities and benefits of facility wide protection in these situations will be discussed. Applications in hospitals, data centers, manufacturing sites, etc. will also be discussed and a few cases studies will be presented.

About the Speakers

Mr. Quade received his Masters Degree in Power Engineering from NJIT. He has held several positions with GPU Energy and now works as a Sales Engineer with Cutler-Hammer Engineering Services.

Mr. Edwards received his Bachelors Degree in Electrical Engineering from the University of Missouri. Prior to his present position as Eastern Regional Sales Manager with Joslyn High Voltage. Mr. Edwards worked for eight (8) years

with S&C Electric Company both domestically as well as in Southeast Asia.

Mr. Pinkey received his Bachelors of Electrical & Electronics Engineering from Manhattan College where he minored in Nuclear Physics. He has been with Cyberex as the Eastern Regional Sales Manager for 3 years prior to which he spent 9 years for Powerware/Exide as Product Manager – Large Systems.

Time: 7:00PM, Thursday, September 21, 2000.

Location: Dialogic Inc., 1515 Route 10 (East bound from Route 202), Parsippany, NJ. Please park and enter from the front of building.

Information: Ken Oexle 973-386-1156.

NJ Consultants' Network:

Bergen Generating Station Tour

On Thursday, September 28th, the IEEE Consultants Network of Northern NJ have planned a tour of the PSE&G owned Bergen Generating Station in Ridgefield Park, NJ.

About the Tour

The plant was modernized in 1994 with the addition of four Siemens manufactured gas turbines with heat recovery steam generators which provide high pressure steam to an existing steam turbine/generator. The gas turbine electronic control system is a Siemens "Teleperm/Simadyne" system. The plant has a Honeywell TDC 3000 computer control system for start-up, monitoring and metering of the plant output. The plant went commercial in June 1995.

About the Consultants' Network

The IEEE Consultants' Network of Northern NJ was founded in 1992 to encourage and promote the use of independent technical consultants by business and industry.

All Welcome!

You do not have to be a member of the IEEE or of the Consultants' Network to attend. Networking after the meeting is encouraged.

Time: 5:30PM, Thursday, September 28, 2000. The tour will last approximately 2 hours.

Place: Bergen Generating Station, Ridgefield Park, NJ.

Information: For travel directions or further information please consult the CNNNJ web site at www.TechnologyOnTap.org or call Robert Walker at 973-728-0344.

NJ Computer and IAS Chapters: E-Commerce Driving Business Models and Supply Chain Management

On October 19, 2000, the Computer and Industrial Application Chapters will sponsor a program on the impact E-Commerce is creating in developing new business models for electronics manufacturing and supply chain management.

About the Talk

The Big 3 automakers are taking equity stakes in E-Commerce companies. SAP has stumbled without E-Commerce modules. Steel is sold in bulk to heavy Industries on the Internet.

What is happening to the present, time tested ways of purchasing, manufacturing, and servicing customers? What does the future hold for manufacturing and supply chain management on the Internet? How are Internet-enabled collaborative environments changing the relationships between various departments, suppliers and customers? How will this impact time to market, quality, and costs? How will this affect manufacturing outsourcing?

The session will show how E-Commerce is changing business models for electronics manufacturing and supply chain management and how it will change your industry, company, and job!

About the Speaker

Michael Chester is Vice President of interEMS.com, a B2B E-Commerce company. Mr. Chester has helped companies ranging from startups to Fortune 500 companies develop strategic plans, business development, E-Commerce and outsourcing strategies.

Time: 7:00PM, Thursday, October 19, 2000.

Location: Dialogic Inc., 1515 Route 10 (East bound from Route 202), Parsippany, NJ. Please park and enter from the front of building.

Information: Ken Oexle 973-386-1156.

ANNOUNCEMENT AND CALL FOR PAPERS
2001 IEEE/ASME JOINT RAIL CONFERENCE
TORONTO, ONTARIO, CANADA
APRIL 17-19, 2001

The Joint Rail Conference is sponsored by the Land Transportation Division of the Vehicular Technology Society (VTS) of the IEEE, and the Rail Transportation Division of the ASME. Papers are invited for presentation and discussion at the Conference.

This year's conference will feature a special theme:

- **New Technology to Meet the Rail Industry Challenges of the 21st Century.**

Papers in this area are especially appreciated, and may be presented together in a special forum.

All papers of interest are also welcome. Topics can include:

- Rail transportation, high speed passenger rail, heavy rail transit, light rail transit, automated people mover, and magnetic levitated systems.
- AC and DC traction propulsion and control systems, electric power distribution and substations, energy efficiency and management, power conversion.
- Signal and communication systems, automation and microprocessor control, Communications-Based Train Control (CBTC), and EMI/EMC issues.
- Automated train dispatching, data management systems, and operation control centers.
- System and software safety and quality assurance and verification processes.
- Maintenance procedures, monitoring and fault detection, remote diagnostics.
- Computer modeling and simulation of transportation systems.
- Rail-Highway Intersection Warning Systems and related ITS applications.
- New starts and renovation projects.
- Other applications of electrical/electronic and communication technologies in rail transportation.

Authors are requested to submit 200-300 word abstracts in 5 printed copies no later than October 1st, 2000 to:

Frederick R. Childs, Papers Chair
Land Transportation Division, IEEE-VTS
Port Authority Trans-Hudson Corporation (PATH)
One PATH Plaza, JSTC-108
Jersey City, NJ 07306
Tel: 201-216-6270
Fax: 201-216-6576
E-mail: fchilds@panynj.gov

Electronic mail submission preferred. If submitting by mail or fax, please forward a diskette copy of your abstract, preferably in Microsoft Word 97[®] format.

Notification of paper acceptance will be made by November 15, 2000. Selected papers must be submitted in acceptable format, as instructed, no later than January 15, 2001 for publication in the Conference Proceedings.



IEEE NORTH JERSEY SECTION

MTT-Society and AP-Society Joint Chapter

PRESENT

15TH ANNUAL SYMPOSIUM AND MINI-SHOW

FOCUS: Microwave and Wireless Communication in the New Millennium.

THURSDAY, SEPTEMBER 7, 2000

**HANOVER MARRIOTT, 1401 ROUTE 10 EAST, WHIPPANY, NJ
973-538-8811**

SCHEDULE OF EVENTS

TECHNICAL SESSIONS (9:15am-5:45pm)

- 9:15 AM ----- Opening Remarks - George Kannell, Technical sessions Chair
- 9:30 AM ----- LDMOS Transistors: A high Power, High Efficiency Linear RF PA Technology
– Jaimes A. Pla, Motorola
- 10:00 AM----- 240 Watt Device for W-CDMA with Quasi E mode Technology
– T.Iida, Fujitsu Compound Semiconductors Inc.
- 10:30AM ----- BREAK
- 11:00AM ----- Silicon Carbide and Gallium Nitride Circuits for Wireless Communication
– Ray Pengelly, Cree, Inc
- 11:30 AM----- Power Amplifier Design and Simulation using CAE tools
– Luigi Greco, Ansoft Corp.
- 12:00 – 1:00PM Lunch
- 1:00 PM ----- EDGE Modulation Analysis Through Circuit Co-Simulation
– Frank Ditore, Agilent Technologies
- 1:30PM ----- Advanced Antenna Technologies
– Reinaldo Valenzuela, Lucent Technologies
- 2:00 PM ----- Advanced Antenna Technologies
– Reinaldo Valenzuela, Lucent Technologies
- 2:30 PM ----- Basic GPS Time and Frequency Course 101 - Richard Bailey, Datum, Inc
- 3:00 PM ----- BREAK
- 3:30 PM ----- RF Performance Requirements in the UMTS terrestrial radio access Network
– Dave Wedge, Lucent Technologies
- 4:00 PM ----- Bluetooth: Issues and Opportunities of a New Wireless Technology
– Todd Sizer, Lucent Technologies
- 4:30 PM ----- Deployment and Service Scenario Towards 3G Mobile systems
– Gerald Flynn, Verizon Wireless
- 5:00 PM ----- Third Generation & Beyond - Ted Darcie, AT&T Labs
- 5:30 PM ----- Closing remarks - Kirit Dixit, Chair, North Jersey MTT/AP-S

10:00 AM TO 6:30 PM - MINI SHOW FEATURING LATEST PRODUCTS

Details of the schedule, speakers and topics will be posted on the IEEE North Jersey Section Homepage at

<http://www-ec.njit.edu/~ieeenj/NEWSLETTER.html>

FOR FURTHER INFORMATION CONTACT KIRIT DIXIT (201-445-2981) OR WILLIE SCHMIDT (973-492-0371).

THERE IS NO CHARGE TO ATTEND THE SYMPOSIUM OR SHOW.

NJ PES/IAS:

Electromagnetic Compatibility: Principles and Applications

The IEEE North Jersey Chapters of IAS/PES will host a one day Seminar on "Electromagnetic Compatibility: Principles and Applications" on Friday September 22, 2000 at Smiths Industries in Florham Park, NJ.

About the Seminar

The seminar duration will be 9:00 AM to 4:00 PM., with breaks for lunch and coffee. The seminar will cover the following topics:

- Introduction to EMI environment
- Sources of conducted and radiated EMI
- Standards governing the EMI Design Guidelines and Test Practices
- EMI Measurements, Control Requirements, and Test Methods
- EMI Issues from Variable Speed Drive Applications
- Harmonics and its Role in EMI
- Mitigation Techniques: Shielding, Bonding and Grounding

The seminar is designed for engineers, contractors, and consultants that are involved with selection, application, and installation of micro-processor based control and protection systems, distributed control systems, power electronic devices such as variable speed drives in industrial, residential, commercial, and electric utility installation such as generating stations and substations.

This seminar will be conducted by industry recognized experts with over 25 years of experience in the area of Electro Magnetic Compatibility. The registration fee for this seminar prior to August 15th will be \$200 (non-IEEE members), \$150 (IEEE Members), and \$100 (students with valid ID). Registrations after August 15th 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 \$200 registration charge.

Time: 9:00 AM to 4:00 PM, Friday, September 22, 2000.

Place: Smiths Industries, 7-9 Vreeland Road, Florham Park, NJ 07932. Directions from Route 287: Take I-287 to Exit 37 (NJ 24 East - Springfield). Take NJ 24 East to Exit 2B (Columbia Turnpike) for 3.3 miles to Vreeland Road (8th set of traffic lights). Turn left on Vreeland Road. Smiths Industries will be on the right (0.7 miles).

Information: R. Vittal Rebbapragada, PE, (609) 720-3209 or r.rebbapragada@ieee.org.

Registration: Electromagnetic Compatibility Seminar - Principles & Applications 9/22/2000

Register via US mail to:

K. Oexle

11 Deerfield Rd

Whippany, NJ 07981

Name _____

Address _____

Phone _____ Email _____

IEEE # _____ Student @ _____ Non IEEE _____

Payment Enclosed \$ _____ Add \$25 late registration after August 15th

Make Check payable to North Jersey Section IEEE