# The IEEE Newsletter

◆ IEEE

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

*NJ MTT/AP Chapter:*

## Call for Presentations

Proposals are being solicited for presentations at the upcoming one-day IEEE North Jersey Annual Symposium and Mini-Show at the Radisson Hotel in Fairfield, NJ on October 3, 2002.

This event is sponsored by the MTT-SAP/AP-S Chapters; thus, topics in the RF/microwave, antenna propagation areas are of greatest interest.

Topics are open and some suggested ones are:

Design, Manufacture and test:
- Power Amplifiers, Transistors
- Device Simulation
- Filter Design
- Oscillators
- Manufacturing/Integration
- RF Test
- RFIC Design
- MEMs
- Millimeter Wave

Systems:
- System Simulation
- Radar
- Military Communications
- 802.11 Standard
- 3G Cellular
- Modulation such as OFDM
- Smart Antennas
- Wireless

Presentations are scheduled to last about 30-40 minutes including questions and answers.

Please contact me if you have any questions or concerns. Email any ideas or proposals to:

George Kannell
IEEE MTT-SAP/AP-S
Technical Sessions Chair
2002 Symposium
gkk@lucent.com
*973-386-4170*

Feel free to pass this along to a colleague!

*NJ Computer Chapter:*

## .NET, C#, and What's Next?

On Tuesday, September 10th, 2002, the IEEE North Jersey Computer Chapter will host a presentation on ".NET, C#, and What's Next?" by Edward (Ted) R. Byrne, PhD.

### About the Talk

Some of us think that we are in the Computer Business or in the Information Technology Profession. However, it's actually more like a technology war with Microsoft, SUN, IBM, and others attempting to gain a competitive advantage that will make their competitors technology obsolete. And if you happen to be practicing in an area targeted for extinction, it might help to know what the trends are so you can steer yourself toward a technology that has a brighter future.

Microsoft has begun a new offensive in this technology warfare with their release of '.NET.' '.NET' is designed to drive a wedge into the Internet business where they expect to find their next buried treasure. '.NET' also has aimed a killer missile, called C#, at JAVA. In fact, Microsoft won't be too worried if it also displaces or wounds C++ or their own Visual Basic.

This talk will describe the goals and concepts of '.NET'- what it gives us, and what it takes away. Also C# will be described and compared with JAVA and C++. HTML has also been bulked up to become XML and is another soldier in the campaign. We will discuss where it fits.

### About the Speaker

Edward (Ted) R. Byrne, PhD, has described himself as a software engineer, developer and consultant (and a fascinated MS-watcher).

He operates his own consulting practice, Flatland Computer Specialties, Inc. His practice consults on software requirements and software development engineering techniques, and provides training in C or C++ programming, Object Oriented Analysis, or other developmental methodology. He also provides specialized software packages for businesses that include generation of bar or postnet codes, creation of user interfaces for controllers, and the merger of check mail lists.

### All Welcome!

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

**Time:** 7:00 PM, Tuesday, September 10, 2002. Pre-meeting dinner 5:30 PM, at the Hanover Marriott, Hanover, NJ, (973) 538-8811.
**Place:** Public Meeting Room, Morris County Library, 30 E. Hanover Ave, Whippany, NJ, (973) 285-6930.
**Information:** Howard Leach (908) 255-1634 or h.leach@ieee.org.

# SEPTEMBER 2002

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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*, (908) 791-4067.

**IEEE NJ SECTION HOME PAGE**
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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.*

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*NJ Signal Processing Chapter:*

# Autocorrelation Matching - A Second-Order Statistics Theory on Blind MIMO-FIR Channel Equalization for Wireless Communications

On Wednesday, September 18, 2002, the IEEE North Jersey Section Signal Processing Society Chapter will host a presentation on "Autocorrelation Matching - A Second-Order Statistics Theory on Blind MIMO-FIR Channel Equalization for Wireless Communications." The speaker will be Dr. Hui Luo.

## About the Talk

Blind MIMO-FIR system equalization techniques refer to a category of signal processing methods that are designed to recover a number of unknown input signals distorted by an unknown MIMO-FIR system from the output signals of this system based on some statistical information about the input signals and/or some structure information about the system model. When these techniques are developed for wireless MIMO communication systems, they are also referred to as blind MIMO-FIR channel equalization techniques, and the objective is to boost spectral efficiency using antenna arrays such that high-data-rate content, such as multimedia signals, can be transmitted using a limited bandwidth.

This talk first introduces a SOS (second-order statistics) based theory on blind MIMO (multiple input multiple output) FIR system equalization. The theory states that, given an MIMO FIR system with the autocorrelation functions of input signals satisfying a linear shift-independence condition, the MIMO-FIR system is equalized and every output signal equals an input signal up to a scalar and a delay, if and only if some SOS of output signals are identical to that of input signals. Based on this theory, this talk then proposes a new wireless MIMO communication technique, called the Autocorrelation Matching Method, which consists of the following steps:

1. filtering each information signal using a distinct pre-filter such that the autocorrelations of the filtered signals satisfy the linear shift-independence condition
2. transmitting all filtered signals simultaneously over the same carrier
3. receiving signals using an antenna array with spatial diversity
4. detecting filtered signals by applying an MIMO-FIR equalizer to the received signals such that the autocorrelations of the output signals of the MIMO-FIR equalizer matches that of the filtered signals
5. recovering information signals by reverse filtering the detected signals
6. identifying the scalar and the delay for every recovered information signal.

This method can be applied to cellular networks as well as wireless LAN for the purpose of improving spectrum efficiency or suppressing co-channel interference. A close-form algorithm is given to compute the optimal zero-forcing equalizer that can minimize the noise power in the output signal. Computer simulation results are presented to verify the theory and demonstrate the performance of the Autocorrelation Method.

## About the Speaker

Hui Luo received his PhD, MSEE, and BSEE degrees in 1994, 1991, and 1990 respectively, all from the Department of Automation, Tsinghua University, Beijing, China. From 1995 to 1997, he was a postdoctoral research associate with the Department of Electrical Engineering, University of Notre Dame, where his research area was blind signal processing. From 1998 to 1999, he worked as an R&D Engineer with Digital Video Express LP, where his research area was digital watermarking. Since mid 1999, he has been working with AT&T Labs - Research, where his research areas include wireless/mobile networking, cryptography applications on networks, and signal processing for wireless communications. He is now a Principle Technical Staff Member with AT&T Labs - Research.

## All Welcome!

You do not have to be an IEEE member to attend. Light refreshments will be served at 4:30 PM.

**Time:** 4:45 PM, Wednesday, September 18, 2002.
**Place:** New Jersey Institute of Technology (NJIT), Room 202, ECE Center, Newark, NJ. Directions are available at www.njit.edu.
**Information:** Dr. Yun-Qing Shi, (973) 596-3501, shi@njit.edu, Dr. Alfredo Tan, (201) 692-2347, tan@mailbox.fdu.edu, or Dr. Hong Man (201) 216-5038, hman@stevens-tech.edu.

# IEEE North Jersey Section Activities
## September 2002

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

**Sept. 10**–".NET, C#, and What's Next?" – NJ Computer Chapter, 7:00 PM, Public Meeting Room, Morris County Library, 30 E. Hanover Ave, Whippany, NJ. Howard Leach (908) 255-1634 or h.leach@ieee.org.

**Sept. 11**–"Manpower Issues" – NJ PACE, 6:30 – 8:30 PM, Clifton Memorial Library, 292 Piaget Ave, Clifton, NJ. Richard F. Tax, (201) 664-6954, rtax@bellatlantic.net.

**Sept. 18**–"Autocorrelation Matching - A Second-Order Statistics Theory on Blind MIMO-FIR Channel Equalization for Wireless Communications" - NJ Signal Processing Chapter, 4:45 PM (light refreshments at 4:30 PM), NJIT, 202 ECE Center, Newark, NJ. Dr. Yun-Qing Shi (973) 596-3501, Dr. Alfredo Tan (201) 692-2324 tan@mailbox.fdu.edu or Dr. Hong Man (201) 216-5038 hman@stevens-tech.edu.

**Sept. 26**–"Getting Small For Small Manufacturers: Thru-Hole vs. SMT" – NJ Consultants' Network, 7:30 PM, KDI Triangle, 60 S. Jefferson Rd, Whippany, NJ. Robert Walker (973) 728-0344 or www.TechnologyOnTap.org.

## Upcoming Meetings

**Oct. 2**–"NJ Section Executive Committee Meeting" – 7:00 PM, ITT, 100 Kingsland Rd, Clifton, NJ. Wayne Owens at (201) 767-3400 ext. 226 or wowens@crestron.com.

**Oct. 3**–"2002 MTT/AP Symposium and Mini-Show" – MTT-S/AP-S Chapter, 9:00AM - 6:00PM, Radisson Hotel Fairfield, 690 Route 46 East, Fairfield, NJ. Kirit Dixit (201) 400-2313, Willie Schmidt (973) 492-0371, Har Dayal (973) 633-4618, or George Kannell (973) 386-4170.

**Oct. 17**–"National Electric Code and Uniform Construction Code Updates" - NJ IAS/PES Chapters, 7:00PM, PSE&G Training Center, Edison, NJ. Ken Oexle (973) 386-1156.

**Oct. 18**–"Power Transfer Switch Seminar" – NJ IAS/PES Chapters, 9:00 AM to 3:00 PM, Automatic Switch Company, 50 Hanover Road, Florham Park, NJ. For additional information contact Vittal Rebbapragada at (609) 720-3209 or r.rebbapragada@ieee.org.

**Nov. 6**–"Introduction to Context Aware Computing" – NJ Computer Chapter, 7:00 PM, Public Meeting Room, Morris County Library, 30 E. Hanover Ave, Whippany, NJ. Howard Leach (908) 255-1634 or h.leach@ieee.org.

**Nov. 22**–"Protective System Relaying Seminar" – NJ IAS/PES Chapters, Time TBA, Jersey Central Power and Light Headquarters Building, 300 Madison Ave, Morristown, NJ. R. Vittal Rebbapragada (609) 720-3209 or via e-mail at r.rebbapragada@ieee.org.

**Mar. 15**–2004 IEEE Fellow Nominations Due.

## Members and Non-Members Welcome
# PLEASE POST

# Manpower Issues

Your Professional Activities Committee will meet on Wednesday, September 11, 2002, to discuss manpower issues and Member's professional needs.

## About the Meeting

High on the 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 disregarded. Check this site

http://www.senate.gov/legislative/vote 1062/vote_00262.html

And, please do not confuse this as an "immigration" issue. This is about money, wage busting and depriving IEEE members of employment and skill enhancement opportunities.

The PACE meeting is open to discuss our members' professional needs. PACE provides IEEE members with the opportunity to meet, address, discuss and perhaps improve the professional aspects of the engineering profession. Members should take advantage of the opportunity to have a place and time to meet with their associates to discuss their profession.

While checking with PACE Leaders, I found high on the list of IEE-USA goals this year "Employment Assistance and Career Development due to the worsening economy." More on these projects can be found at www.ieeeusa.org.

Any suggestions may be emailed to Richard F. Tax at rtax@bellatlantic.net.

## Welcome!

You do not have to be a member of the IEEE to attend. Members of other professional societies and engineering disciplines are always welcome.

**Time:** 6:30 to 8:30 PM, Wednesday, September 11, 2002.
**Place:** Clifton Memorial Library, 292 Piaget Ave., Clifton, NJ 07011, (973) 772-5500.
**Information:** Richard F. Tax, (201) 664-6954, rtax@bellatlantic.net.

# Getting Small For Small Manufacturers: Thru-Hole vs. SMT

On Thursday September 26, 2002, the IEEE Consultants' Network of Northern NJ (CNNNJ) will present a seminar outlining the criteria involved in taking low-volume products to Surface Mount (SMT) technology.

## About the Talk

SMT is widely recognized as the most economical technology for high volume manufacturing. Choosing between conventional thru-hole technology and SMT is not as simple when the volumes to be manufactured are low. A decision on which technology to use should be made early in the product design cycle. That decision will have a major impact on the cost to manufacture the product. An informed understanding of the component and manufacturing costs of each technology is essential.

A comparison of the two technologies will be presented. The cost to manufacture a simple product will be examined for an SMT and a Thru-Hole version of the design for 10 prototypes, a pilot lot of 50 pieces, and yearly production quantities of 100, 200, and 500. The design limitations with each technology will be covered, such as product size. The component selections required for each design will be compared and the trade offs and component costs for each will be discussed. The presentation will include a discussion of the process and the cost to manufacture each design using Thru Hole assembly, Prototype SMT, and Automated SMT assembly techniques. Factors such as tooling, panelizing, CAD data, component packaging requirements, testing, and rework costs will also be discussed to provide the information needed to make an informed decision on which technology is most economical to use at these lower quantities.

## About the Speaker

Jim Disser founded Infrared Of New Jersey, Inc (http://www.irnj.com/) in 1986. His designs include the company's line of optoelectronic People Sensors™ as well as numerous custom OEM products including controls for the HVAC industry. After 15 years of product design and manufacturing, Jim created a new division of IRNJ, RealTime Manufacturing Co. (http://www.realtimemfg.com/) to address the need for a new kind of contract manufacturer, solving the types of problems he encountered with outsourcing in IRNJ and providing cost effective manufacturing with good service and quality to the low-to-medium volume

customer.

## 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. There is no charge for admission. Bring your friends.

**Time:** 7:30 PM, Thursday, September 26, 2002.
**Place:** KDI Triangle, 60 S. Jefferson Rd, Whippany, NJ.
**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.kditriangle.com/directions.htm.

# 2004 IEEE Fellow Nominations

Deadline: 15 March 2003

Recognizing the achievements of its members is an important part of the mission of the IEEE. The IEEE grade of Fellow is conferred upon a person of "outstanding and extraordinary qualifications and experience in IEEE designated fields, and who has made important individual contributions to one or more of these fields." The total number of Fellows selected each year does not exceed 0.1% of the total IEEE membership.

Any person, including nonmembers, is eligible to serve as a nominator with the following exceptions: members of the IEEE Board of Directors, members of the IEEE Fellow Committee, IEEE Technical Society/Council Fellow Evaluating Committee Chairs, members of IEEE Technical Society/Council Evaluating Committees reviewing the nomination, or IEEE staff. The deadline for nominations is 15 March 2003.

The candidate must be an IEEE Senior Member at the time the nomination is submitted, and he/she must have completed 5 years of service in any grade of IEEE membership.

All the necessary material to assist you in the nomination process is available on the IEEE Web site: http://www.ieee.org/about/awards/fellows/ fellows.htm. If you prefer a hard copy, please send an e-mail to fellow-kit@ieee.org. Include your name, street address, city, state/province, postal code, country, and telephone/fax numbers.

# 2002-2003 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 2002-2003 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! Details of the event's exact location, date, time, directions, and registration will become available on the SAC website below. Free Student Leadership Training Workshops, Professional Skills Development Workshops. These workshops are planned for throughout the fall semester. Instead of just holding single workshops, multiple individual workshops will be held at each university who wishes to receive formal training at their local branch for this and upcoming year's students. This holds true for both the leadership and professional skills training. If you would like to host these events then contact the organizer below. The annual Paper Presentation Contest is also planned for mid February/early March.

Also, the Antennas Theory and Techniques/Microwave Propagation Chapter will be holding their annual minishow on October 3rd from 9am to 6pm at the Radisson Hotel in Fairfield, NJ. If you would like to attend or participate as a student volunteer, contact Kirit Dixit at kdixit@ieee.org for details.

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 a.j.patel@ieee.org and visit the new website at

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

*NJ Computer Chapter:*

# Introduction to Context Aware Computing

On Wednesday, November 6, 2002, the IEEE North Jersey Section Computer Chapter will host a presentation on "Introduction to Context Aware Computing" by Eli Rohn.

**About the Talk**

Context Aware Computing is about to enter the mainstream of computer based gadgets and with no doubt will become part of mainstream computing. Certain future applications will be expected to perform tasks related to context.

The presentation covers the following:

- Introduction to Context Aware Computing
- Early examples (with side bars for clarification)
- Taxonomy and classification of Context Aware Computing
- General, legal, and ethical issues with Context Aware Computing
- Examples of ongoing Context Awareness related research
- Exploring theoretical limits
- Conclusion

**About the Speaker**

Mr. Rohn is the Managing Member of Rohn Consulting LLC, an outstanding IT consulting firm. He has published two technical books and over 30 professional articles. Mr. Rohn, who started as a programmer, has over 18 years of experience with Information Technology, ranging from mainframes to wireless computing. In addition, Mr. Rohn is an adjunct professor at the New Jersey Institute of Technology, College of Computer Science.

**All Welcome!**

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

**Time:** 7:00 PM, Wednesday, November 6, 2002. Pre-meeting dinner at 5:30 PM, at the Hanover Marriott, Hanover, NJ, (973) 538-8811.
**Place:** Public Meeting Room, Morris County Library, 30 E. Hanover Ave, Whippany, NJ, (973) 285-6930.
**Information:** Howard Leach (908) 255-1634 or h.leach@ieee.org.

*PES/IAS:*

# Protective System Relaying Seminar

The PES and IAS Chapters will sponsor a one-day seminar covering the fundamentals and application of protective relaying principles and applications for industrial and utility systems.

The seminar leaders are members of the IEEE Power System Relaying Committee and will address relaying topics specific to utility, substation and industrial distribution systems.

Complete details and a registration form will be published in the October and November Newsletters. There will be a charge for the seminar, which includes lunch, refreshments and handouts.

**Time:** Friday, November 22, 2002.
**Place:** Jersey Central Power and Light Headquarters Building, 300 Madison Ave, Morristown NJ.
**Information:** Vittal Rebbapragada 609-720-3209.

*PES/IAS:*

# National Electric Code and Uniform Construction Code Updates

On October 17th, 2002, the Power Engineering and Industrial Applications Chapters will sponsor a technical meeting on recent changes to the National Electric Code and revisions to Uniform Construction Code. The speaker will be Won Kim, PE, an Associate with Eckland Consultants.

**Time:** 7:00 PM, Thursday, October 17, 2002.
**Place:** PSE&G Training Center, Edison, NJ. Directions: Route 287 to Route 1 North, about 500 feet. Right on Pierson Road. PSE&G first driveway on left.
**Information:** Ken Oexle (973) 386-1156.

## North Jersey Student Activities Committee and GOLD Seek Volunteers and Speakers

The NNJ IEEE SAC and GOLD are seeking new volunteers to help conduct business at the section level for the benefit of students in the North Jersey section and surrounding areas. Additionally local student chapters are seeking speakers to give talks on professional and technical topics.

If you would like to speak on professional topics ranging from career development, time or project management, engineering experiences, and many more, or have specific technical topics and developments you would like to contribute, or even have some pet topics of your own, please contact the organizer below.

Additionally, the NNJ SAC is seeking volunteers to get involved at the section level to help organize local events for students and the GOLD membership in the NY-NJ Metro area. If you would like to help out even for short periods of time or maybe take on leading a committee in the section, please contact the organizer Amit Patel (a.j.patel@ieee.org ) to find out more and come to a section business meeting.

## Conference Rooms Needed!

The North Jersey Section (Education Committee) is looking for conference room facilities to hold their training seminars. The seminars are being held on one weeknight from 6:30 PM to 9:00 PM. In lieu of providing the conference facility for free, the organization can get free registration up to three members in the course/seminar. Please contact Bhanu Chivakula, Co-chair, Education Committee at b.chivakula@computer .org for suggestions or discussions, if interested.

## IEEE Members Now Receive Discount on MIT Advanced Study Program Courses

Massachusetts Institute of Technology Advanced Study Program (MIT ASP) has become an IEEE Education Partner. IEEE members can now continue their life long learning with graduate-level, credit courses provided by MIT at a 10% discount. Current ASP courses include Systems Dynamics, a 24-month certificate program, and Economic Concepts for Engineers, a semester-long course.

Offered over the Internet since 1995, the ASP is in its 33$^{rd}$ year of providing courses to off-campus graduates. Taught by MIT faculty, the online delivery takes advantage of the latest in technologies for working engineers to keep pace with developments in their fields or to enlarge their knowledge base. Admission is based on the applicant's academic and professional background.

Applications, course pre-requisites, and systems requirements are detailed at the MIT-supplied website for IEEE members. You must use your IEEE member number to receive the 10% discount.

Enter through the IEEE Educational Partners, http://www.ieee.org/EduPartners, and choose MIT from the university partners. To learn more about the IEEE Education Partners Program contact Sasha Eydlin, IEEE Educational Activities, s.eydlin@ieee.org.

## Record Engineering Unemployment Spurs IEEE-USA Call for Congressional Action

WASHINGTON (12 July 2002) - Although the overall U.S. unemployment rate fell in the second quarter, it increased significantly for engineers and computer scientists. IEEE-USA is calling on all Members of Congress to conduct a field hearing or town hall meeting during the August district work period to gather input on the situation from engineers and other high-tech professionals.

The unemployment rate for all engineers increased from 3.6 percent in the first quarter of 2002 to 4.0 percent in the second quarter, data from the U.S. Department of Labor, Bureau of Labor Statistics reveals. The rate for electrical and electronics engineers (EEs) rose from 4.1 percent to 4.8. The rate for computer scientists, which includes systems analysts, jumped from 4.8 to 5.3 percent. Overall unemployment fell from 5.9 to 5.4 percent.

"IEEE-USA is concerned that the most recent increase in engineering unemployment is not a short term or cyclical phenomenon, but represents a more fundamental shift in engineering utilization that has potentially negative impacts for our nation," IEEE-USA President LeEarl Bryant said in a letter to Congress (http://www.ieeeusa.org/forum/POLICY/02July12.html).

IEEE-USA is asking Congress to investigate the impacts of increased hiring of non-U.S. guest workers, the greater use of temporary workers and the outsourcing of engineering work overseas as causes of the unemployment problem, in addition to the economic downturn.

"It is time for Congress to take a closer look at the problem of engineering unemployment and to eliminate the government subsidies and incentives that encourage corporate management to treat U.S. engineers as a disposable labor commodity rather than an essential investment in our nation's future," Bryant said.

**THE INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS, INC.**

# IEEE NORTH JERSEY SECTION
**MTT-Society and AP-Society Joint Chapter**

PRESENT

17TH ANNUAL SYMPOSIUM AND MINI-SHOW

**FOCUS:  RF AND MICROWAVE COMMUNICATION IN THE
CURRENT  MARKET PLACE**

**Thursday, October 3, 2002
Radisson Hotel Fairfield, 690 Route 46 East, Fairfield NJ    973-227-9200**

The conference presents a series of 10 –12 lectures featuring speakers from leading companies with emphasis on military  electronics, wireless technologies and microwave communications.

**9:30 AM TO 6:00 PM - MINI SHOW FEATURING LATEST PRODUCTS (Approx. 30-40 Exhibitors)**
**9:00 AM TO 5:30 PM - Technical Sessions**

Details of the schedule, speakers and topics can also be found at the IEEE North Jersey Section Homepage:

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

FOR FURTHER INFORMATION CONTACT KIRIT DIXIT (201-400-2313), WILLIE SCHMIDT (973-492-0371), HAR DAYAL ( 973-633-4618 ), OR GEORGE KANNELL (973-386-4170).

**THERE IS NO CHARGE TO ATTEND THE SYMPOSIUM OR SHOW**

*NJ PES/IAS:*

# Power Transfer Switch Seminar

The PES and IAS Chapters will present a technical seminar on the design, operation and application of industrial grade low – medium voltage (120 thru 15000 volt) power transfer switches. The session will be held at Automatic Switch Company, 50 Hanover Road in Florham Park, NJ, on Friday October 18, 2002 beginning at 9:00AM.

**About the Seminar**

Topics to be covered include:

- Power Transfer Switch Design and Construction
- Industry Codes and Standards
- Power Switching Applications
- Controls and Communication Systems for Transfer Switching
- Transfer Switch Ratings
- Tour of ASCO/Emerson Switch Assembly and Test Facility

Mr. Ronald Schroeder, Director – Product Management Power Switching and Controls, will lead the seminar and be assisted by other members of the staff at Automatic Switch (a Division of Emerson Electric). Ron has over 30 years of experience in the design and application of power transfer switches to meet specific application requirements. A graduate of Kean University, he is a member of IEEE.

The registration fee for this seminar prior to October 4$^{th}$ will be $175 (non-IEEE members), $125 (IEEE Members), and $50 (students with valid ID). The fee will be waived for IEEE Life Member Grades with advance registration and verification at the seminar. Registrations after October 4$^{th}$ 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.

**Time:** 9:00 AM to 3:00 PM, Friday, October 18, 2002.
**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 (6$^{th}$ set of traffic lights). Turn left on Hanover Road (Afton Restaurant). Automatic Switch will be on the right (0.4 mile). Enter first driveway-marked shipping/receiving and proceed to visitor parking lot on the left. Follow sidewalk to office entrance door.
**Information:** R. Vittal Rebbapragada, PE, (609) 720-3209 or r.rebbapragada@ieee.org.

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*Registration: Power Transfer Switch Seminar, 10/18/2002*

Register via US mail to:
K. Oexle
11 Deerfield Rd
Whippany, NJ 07981

Name _____

Address _____

Phone_____ Email _____

IEEE #_____ Student @_____ Non IEEE_____ Life Member _____

Payment Enclosed $_____ Add $25 late registration after October 4$^{th}$, 2002.

***Make Check payable to North Jersey Section IEEE***