



The IEEE

# Newsletter

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

## Instructors Wanted!

The IEEE North Jersey Section needs instructors with any combination of the following qualifications, skills and experience (both teaching and consulting experience) to teach Education Committee training seminars in the North Jersey Area. The classes may take place one or two evenings each week for a minimum of 10 classes (2.5 hrs x 10 classes = 25 hrs). Otherwise, classes may be offered on Saturdays depending on IEEE member's request and availability of the venue or place.

### Topics of interest:

- Introduction to Java Programming (including RMI, Network Programming, Multi-threading etc)
- Advanced Java Programming (JavaBeans, EJB, J2EE etc.)
- XML, HTML, XHTML, DHTML programming and development
- Visual Basic Programming with Access or SQL Server
- Advanced Visual Basic with ASP, COM, DCOM etc.
- Oracle Database Programming
- Database Administration (Oracle, SQL Server)

The Education Committee is open to comments or suggestions. Resumes should be sent to Bhanu Chivakula at [b.chivakula@computer.org](mailto:b.chivakula@computer.org). Please contact the undersigned for further information:

- ✉ Dr. Fred Chichester, Chair Education Committee, Voice mail (973) 744-3065
- ✉ Bhanu Chivakula, Co-Chair Education Committee, email: [b.chivakula@computer.org](mailto:b.chivakula@computer.org).

*NJ PES/IAS:*

## California Energy Situation

On October 18<sup>th</sup>, the IEEE North Jersey Chapters of IAS/PES will sponsor a session on the evolving energy supply and pricing events being experienced on the west coast.

### **About the Talk**

California was the first state to restructure both its wholesale and retail electricity markets. Since the fall of 2000, the fabric of their innovation has begun to unravel, due to a combination of bad design and bad luck. This presentation will discuss the history of California's restructuring efforts and its implications for the electricity industry.

### **About the Speaker**

The speaker will be Laura Manz, Manager-Transmission Planning and Technical Services at PSE&G.

**Time:** 7:00 PM, Thursday, October 18, 2001.

**Place:** PSE&G Training Center, Edison, NJ. Directions: Route 287 to Route 1 North, about 500 feet. Right on Pierson Road. PSE&G first drive on left.

**Information:** Ken Oexle (973) 386-1156 ([k.oexle@worldnet.att.net](mailto:k.oexle@worldnet.att.net)).

## November Workshop for Students, Plan to Attend!

The Professional Skills Development Workshop is coming up. This annual workshop will be held in early November at Stevens Institute of Technology in Hoboken, NJ.

If you don't already know, this workshop is to provide students an opportunity to get professional skills education that is not available in an academic environment. Comparable to last year's workshop, the agenda will include topics emphasizing softer skills that engineers need to succeed in today's working world. Previous topics included career planning and management, overcoming fears, and public communication skills.

The Fall 2001 program will include new professional topics and new speakers. The focus will be on critical topics such as practical engineering experience, presentation skills, and many others. Remember, this workshop is open to all interested engineering students that want to learn such professional skills and have an edge before they go to work.

Details and pre-registration will be on the web soon. Stay tuned for more information at the North Jersey SAC website or contact Amit Patel ([a.j.patel@ieee.org](mailto:a.j.patel@ieee.org)).

# October 2001

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### 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](mailto:wowens@crestron.com).**

*NJ Section PACE & SMC Society:*

## Micro Control Unit Seminar

During the month of October, through the joint cooperation of the Professional Activities Committee (PACE) and the Systems Man and Cybernetics (SMC) Chapter, the Section will present a seminar on MCUs. Our guest speaker and presenter will be John Magrane, Sr. FAE, from Microchip Technology Inc. Information about Microchip Technology Inc. can be found at their web site [www.microchip.com](http://www.microchip.com).

### About the Seminar

The Seminar "Introduction to PICmicros®" will be divided into three sessions and presented on October 4, 18, 25<sup>th</sup>. For "Hands On Experience" you are invited to bring your laptop computer. **More detailed information will be included in our October Newsletter.**

#### Session 1, Oct 4<sup>th</sup>

Architecture Overview, Program and Data Memory Organization, Register File Concept, Peripherals, Special Features.

#### Session 2, Oct 18<sup>th</sup>

Instruction Set Overview, Encoding, Bit Byte and Literal Instructions, PIC16 and PIC18 comparisons.

#### Session 3, Oct 25<sup>th</sup>

Development Tools, MPLAB IDE (Project Manager, Assembler, Simulator) ICE2000 Emulator, ICD, Programmers, C Compilers.

### About the Speaker

John Magrane is a Sr. FAE, Group Leader for Microchip Technology Inc. He Graduated from Rensselaer Polytechnic Institute with a BS in Physics and minors in Electrical Engineering and Management. John has hardware and software design experience with Raytheon and LORAL. He has 7 years experience as an FAE supporting Microcontrol based designs. The last 2 1/2 John has been with Microchip Technology Inc.

**Time:** Approximately 6:30-9:00 PM, Thursdays, October 4, 18, 25, 2001.

**Place:** Fairleigh Dickinson University auditorium RA-100, Robison Annex, Teaneck, NJ.

**Attendance/Information:** No admission fee, but limited to members of IEEE and the American Engineering Association, Inc., (AEA). For IEEE membership info, contact IEEE at [www.ieee.org](http://www.ieee.org) or Mike Liechenstein, [m.liechenstein@ieee.org](mailto:m.liechenstein@ieee.org), (973) 471-0721. For AEA membership, contact the AEA at [www.aea.org](http://www.aea.org) or Richard Tax at [rtax@bellatlantic.net](mailto:rtax@bellatlantic.net), (201) 664-6954.

*NJ Communications Society:*

## High Speed Switch/Router Design

On October 18th, the IEEE North Jersey Chapter of Communications Society will sponsor a presentation on "High Speed Switch/Router Design." The speaker will be Dr. Jian-Guo Chen.

### About the Talk

This talk will focus on various aspects of implementing high speed switches/routers. It will cover such operations as: table lookup/classification, traffic policing, buffer management, traffic buffering, queuing, and scheduling. This talk will also cover the issues switch/router designers have to face when the networking speed scales up from OC-48 to OC-192 and beyond, especially the memory bandwidth and latency related issues.

### About the Speaker

Jian-Guo Chen is a member of technical staff in the Network Processor and Switch (NPS) group of Agere Systems Inc. At Agere, he is responsible for architecture design of IP routers/network processors, especially traffic management part. Currently, he is working on the 10G network processor architecture design. Before joining Agere, he worked at Bell Labs of Lucent Technologies on the ATM switch design since January 1997. Dr. Chen received his PhD degree in electrical engineering from the New Jersey Institute of Technology, Newark, in 1997.

### All Welcome!

You do not have to be an IEEE member to attend. Light refreshments will be served at 4:45 PM.

**Time:** 5:00 - 6:00 PM, Thursday, October 18, 2001 (refreshments start at 4:45 PM).

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

**Information:** Dr. Nirwan Ansari (973) 596-3670 ([nirwan.ansari@njit.edu](mailto:nirwan.ansari@njit.edu)). Please check <http://www-ec.njit.edu/~ieeenj> for the latest updates.

# North Jersey Section Activities

## October 2001

**Oct. 3**–“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](mailto:wowens@crestron.com).

**Oct. 4**–“Micro Control Unit Seminar (1st Session)” – NJ PACE and SMC Society, 6:30 – 9:30 PM, Fairleigh Dickinson University auditorium RA-100, Robison Annex, Teaneck, NJ. Dr. Mike Liechenstein (973) 471-0721 ([m.liechenstein@ieee.org](mailto:m.liechenstein@ieee.org)) or Richard Tax (201) 664-6954 ([rtax@bellatlantic.net](mailto:rtax@bellatlantic.net)).

**Oct. 7-11**–“2001 IEEE Vehicular Technology Conference”, NJ VTS Chapter, Sheraton Convention Center Hotel/AC Convention Center, Atlantic City, NJ. For more details see <http://www.fallvtc2001.org> or contact Art Greenberg at [a.h.greenberg@ieee.org](mailto:a.h.greenberg@ieee.org) or (973) 386-6673.

**Oct. 12**–“International Conference on Computing and Information Technologies (ICCIT'2001)”, Montclair State University, Upper Montclair, NJ. For more details see <http://www.csam.montclair.edu/~ICCIT2001/> or contact ICCIT'2001 Secretariat at [iccit2001@pegasus.montclair.edu](mailto:iccit2001@pegasus.montclair.edu) or (973) 655 - 4250.

**Oct. 17**–“Next-Generation Wireless Networking” - NJ VTS Chapter, 7:00 PM, Fairleigh Dickinson University, Muscarelle Building, Teaneck Campus, NJ. Mel Lewis (201) 692-2348 ([mlewis@fd.edu](mailto:mlewis@fd.edu)) or Art Greenberg (973) 386-6673 ([a.h.greenberg@ieee.org](mailto:a.h.greenberg@ieee.org)).

**Oct. 18**–“California Energy Situation” – NJ IAS/PES Chapters, 7:00 PM, PSE&G Training Center, Edison, NJ. Ken Oexle (973) 386-1156.

**Oct. 18**–“Micro Control Unit Seminar (2nd Session)” – NJ PACE and SMC Society, 6:30 – 9:30 PM, Fairleigh Dickinson University auditorium RA-100, Robison Annex, Teaneck, NJ. Dr. Mike Liechenstein (973) 471-0721 ([m.liechenstein@ieee.org](mailto:m.liechenstein@ieee.org)) or Richard Tax (201) 664-6954 ([rtax@bellatlantic.net](mailto:rtax@bellatlantic.net)).

**Oct. 18**–“High Speed Switch/Router Design” - NJ Communications Chapter, 5:00-6:00 PM, , NJIT, 202 ECE Center, Newark, NJ. Dr. Nirwan Ansari (973) 596-3670 ([nirwan.ansari@njit.edu](mailto:nirwan.ansari@njit.edu)). Please check <http://www-ec.njit.edu/~ieeenj> for the latest updates.

**Oct. 25**–“Micro Control Unit Seminar (3rd Session)” – NJ PACE and SMC Society, 6:30 – 9:30 PM, Fairleigh Dickinson University auditorium RA-100, Robison Annex, Teaneck, NJ. Dr. Mike Liechenstein (973) 471-0721 ([m.liechenstein@ieee.org](mailto:m.liechenstein@ieee.org)) or Richard Tax (201) 664-6954 ([rtax@bellatlantic.net](mailto:rtax@bellatlantic.net)).

**Oct. 25**–“Engineering Opportunities at Fort Monmouth and Picatinny Arsenal” – NJ Consultants' Network, 7:30 PM, KDI Triangle, 60 S. Jefferson Rd, Whippany, NJ. Robert Walker (973) 728-0344 or [www.TechnologyOnTap.org](http://www.TechnologyOnTap.org).

### Upcoming Meetings

**Nov. 7**–“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](mailto:wowens@crestron.com).

**Nov. 8**–“Micro Devices” – EDS/C&S Chapters, 7:00 PM, NJIT, 202 ECE Center, Newark, NJ. Dr. Richard Snyder (973) 492-1207, Dr. Durga Misra (973) 596-5739 ([dmisra@njit.edu](mailto:dmisra@njit.edu)), or Dr. Edip Niver (973) 596-3542.

**Nov. 15**–“Seminar: Building A High Volume Scalable Web Site” - NY Computer & Communications Society Chapters, 9:00 AM – 4:45 PM, Consolidated Edison, Management Dining Room (19th Floor), 4 Irving Place, New York, NY. Yuan Yao ([Yuan.Yao@equant.com](mailto:Yuan.Yao@equant.com)) or <http://www.comsoc.org/socstr/chptrs/nyc/>.

**Nov. 15**–“Project Management for Telecommunications Services” - NJ EMS, 7:00 – 9:00 PM, NJIT, 202 ECE Center, Newark, NJ. Wayne Owens at (201) 767-3400 Ext. 226 or [wowens@crestron.com](mailto:wowens@crestron.com).

**Dec. 7**–“Electric Power Cable Seminar” – NJ IAS/PES Chapters, 9:00 AM – 3:00 PM, GPU Energy, 300 Madison Ave, Morristown, NJ. R. Vittal Rebbapragada (609) 720-3209 or via e-mail at [r.rebbapragada@ieee.org](mailto:r.rebbapragada@ieee.org).

**Members and Non-Members Welcome**

**PLEASE POST**

VTS Chapter:

## Next-Generation Wireless Networking

The North Jersey Chapter of the IEEE Vehicular Technology Society will host a talk on 17 October 2001. The topic is "Next-Generation Wireless Networking" by Dr. Richard D. Gitlin, Visiting Professor of Electrical Engineering at Columbia University.

### About the Talk

By 2003 projections are that the number of cell phones worldwide will approach a billion, and that by 2005 wireless voice service will outnumber fixed-service. In this time frame it is also likely that more wireless data devices will be connected to the Internet than wired PCs.

It may very well be that the mobile phone/terminal will become the e-commerce platform of the future and that most consumer devices, PCs, digital cameras, music players, etc., will have wireless connectivity. To support this dramatic growth, the wireless telecommunications industry has reached the consensus that future third and fourth generation [3G/4G] wireless networks should be based on the ubiquitous Internet Protocol [IP] protocol and associated technology. The paradigm shifts in the access and backbone wireless networks to an IP-based packet mode network architecture are very significant discontinuities that dramatically overshadow the earlier industry shift from analog to digital technology. These next-generation networks are expected to be multimedia, high performance networks, which will support rapid service creation, and will provide the Quality of Service [QoS] and reliability that is matched to the application. Together, all of these factors make the design of real-time, multimedia mobile IP networks, one of the central research challenges of this decade. This presentation will describe the likely evolution path to an all-IP wireless network, and will discuss some of the associated issues, technological foundations, and challenges to realize this vision for 3G and 4G wireless networks.

### About the Speaker

Dr. Richard D. Gitlin is Visiting Professor of Electrical Engineering at Columbia University where he does research and teaches courses in wireless, broadband networking, and digital communications. Before assuming this position, he was with Lucent Technologies for more than thirty years, where he held several executive positions. He was the Chief Technical Officer and Vice President of R&D, of the Data Networking Systems Business Unit,

where he was responsible for product development, architecture and systems engineering, standards, and advanced development for all data networking products. Previously he was Senior Vice President for Communication Sciences Research at Bell Labs, Lucent Technologies where he managed and led research in wireless systems, broadband and optical networking, multimedia communications, and access technologies. Throughout his career he has conducted and led pioneering research and development in digital communications and networking that has resulted in many innovative products including: the industry leading ATLANTA ATM Chipset, Globeview - the world's first 20 gigabit/sec ATM switch, wire-speed and quality of service [QoS]-aware IP switches, multicode technology for CDMA wireless data (IS-95B), and the record-setting BLAST fixed-wireless loop system based on advanced spatial domain (smart antenna) processing. Earlier in his career he led the team that pioneered the V.32/V.34 voice-band modems, and in 1986 he was a co-inventor of the DSL digital subscriber line technology.

He is the co-recipient of three prize paper awards including the 1995 IEEE Communications Society's Steven O. Rice Award for the best original paper published in the *IEEE Transactions on Communications*, the 1994 IEEE Communications Society's Frederick Ellersick Award for the best paper published in the *IEEE Communications*, and the 1982 *Bell System Technical Journal* Award for the best paper in communications science. Dr. Gitlin is the co-author of the text *Data Communications Principles*, more than 95 technical papers, numerous conference papers and keynote presentations. He holds 43 patents in the area of data communications, digital signal processing, wireless systems, and broadband networking. He is a Fellow of the IEEE and is also a Bell Laboratories Fellow.

Dr. Gitlin has served as Chair of the Communication Theory Committee of the IEEE Communications Society, as a member of the COMSOC Awards Board, as Editor for communication theory of the *IEEE Transactions on Communications*, as a member of the Board of Governors of the IEEE Communications Society, and a member of the Nominations and Elections Board. He has served on the Advisory Committee for Computer Science and Engineering (CISE) of the National Science Foundation. He has been an Adjunct Professor of Electrical Engineering at Princeton University. He was a founding Editorial Board member of the *Bell Labs Technical Journal*, and he

currently serves on the Editorial Boards of *Mobile Networks and Applications* and the *Journal of Communications Networks (JCN)*.

Dr. Gitlin received the D. Eng. Sc. Degree from Columbia University in 1969. For more info:

<http://www.columbia.edu/~rdg74>

### All Welcome!

You don't have to be an IEEE member to attend. Bring your friends. There is no fee or need to register. Light refreshments will be served.

**Time:** 7:00 PM, Wednesday, October 17, 2001.

**Place:** Fairleigh Dickinson University, River Road, Teaneck, NJ. Muscarelle Building - room to be announced. Take Route 4, get off at River Rd. Park in the main lot. Muscarelle Hall is the brown brick building at the top of the stairs off the parking lot. Note: do not go to the Hackensack Ave. campus. Signs will list room number for talk.

**Information:** Mel Lewis (mlewis@fdu.edu) 201-692-2348, or Art Greenberg (a.h.greenberg@ieee.org) 973-386-6673.

NJ EDS, C&S Chapters:

## Micro Devices

On November 8, 2001, the IEEE NJ Section Electron Devices, and Circuits and Systems Chapters together with the New Jersey Institute of Technology will host a talk on "Micro Devices." The speaker will be William Trimmer.

### About the Talk

Man has been developing tools and devices on the size scale of his hands for millennia. Cooperative efforts have also made substantially larger mechanical systems such as cranes, ships, and even canals and roads possible. Strangely enough, small scale structures have not historically been put to the same good advantage. Recent tools and fabrication techniques are changing this.

A few of the numerous opportunities include genetic engineering, microsurgery, drug delivery, the science and engineering of small scale phenomena, pressure sensors, accelerometers, micro valves and fluid controllers, micro actuators, distributed intelligence, communications and many others.

This talk will provide an overview of the history, recent developments, and the potential for the future of the field of micromechanics and MEMS. The capabilities of different technologies and promising applications will be examined. The audience is encouraged to ask questions about their areas of interest.

### About the Speaker

William Trimmer is one of the original researchers in the field of micro mechanics. He organized and was Editor of the IEEE/ASME Journal of Microelectromechanical Systems for six years, and started and was Editor of the Micromechanics Section in the Sensors and Actuators Journal. He organized and co-chaired the first workshop in the international series of Microelectromechanical Systems Workshops, and he published the IEEE book *Micromechanics and MEMS*. He has co-developed a micro optical fiber switch, a shape memory alloy actuator, an inch worm motor, a genetic engineering tool, and a sacrificial technique for making micro devices.

### All Welcome!

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

**Time:** 7:00 PM, Thursday, Nov. 8, 2001. Free buffet will be starting at 6:00 PM.

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

**Information:** Dr. Richard Snyder (973) 492-1207 (RS Microwave), Dr. Durga Misra (973) 596-5739 ([dmisra@njit.edu](mailto:dmisra@njit.edu)) or Dr Edip Niver (973) 596-3542 (NJIT).

NJ EMS Chapter:

## Project Management for Telecommunications Services

On November 15, 2001, the IEEE North Jersey Section Engineering Management Chapter will host a presentation on "Project Management for Telecommunications Services" by Dr. Mostafa Hashem Sherif.

### About the Talk

The discipline of Project Management has been dealing mostly with industrial projects in construction, aerospace and defense. In the last decade, many different industries including software engineering have applied project management techniques to meet the triple constraints of cost, quality and schedule. However, very few textbooks or courses on project management have addressed the special needs of project managers in service organizations.

The focus of this talk is on telecommunication services. First, we give examples to show how the approach to project management differs in this situation from that of equipment manufacturing or software development. We then show how these differences affect the context in which project management is applied in the areas of scope management, quality management and risk management.

### About the Speaker

Mostafa Hashem Sherif is a Principal Member of the Technical Staff at AT&T Laboratories. He received his BSc in Electronics and Communications and MSc in Electrical Engineering from Cairo University, Egypt in 1972 and 1975 respectively, and PhD in Engineering from the University of California, Los Angeles in 1980. In 1996, he obtained his Masters of Science in the Management of Technology from Stevens Institute of Technology, Hoboken, NJ.

Dr. Sherif is a senior member of the IEEE, a member of Sigma XI, a Certified Project Management from the Project Management Institute, a member of the *Awards and Recognition working committee of the AT&T Project Management Council* and a member of the evaluation committee for the *Commission on Science and Technology, State of New Jersey*, reviewing pre-proposals for the R&D Excellence Program. Since 1993, he has been a standards editor for the *IEEE Communications Magazine*. In 2000, he was appointed to the board of the *IEEE Press* as the representative of the IEEE Communications Society.

He is a recognized international expert on standards for packetized voice and

digital signal processing in transmission equipment. He was a major contributor to the following key ITU recommendations: 1) ADPCM G.726/G.727 which are used in many telecommunications network applications, 2) G.764/G.765 which are the benchmark for voice packetization and compression in telecommunications network equipment, 3) G.511 for testing facsimile processing network equipment and 4) G.720 which is the standard method for testing voice coders with data signals. He has also been the main contributor to Committee T1 reports on voice packetization and echo cancellation. He is currently one of AT&T participants at the ATM Forum. He was awarded the AT&T Labs Standards Award by the President of AT&T Labs in 1998. This year, he was invited as a speaker at the ITU Megacom-2004 symposium in April 2001 to advise the study group 16 on its future work plan.

He is a founding member of the series of conference on International Conference on the Management of Technology sponsored by the International Association for the Management of Technology. He was invited on several occasions by the National Science Foundation to participate in its activities on innovation and technology management. He is also a founding member of the IEEE International Symposium on Computers and Communications and was the co-general chair of the 2000 Symposium. He has been the guest editor for *Speech Communications* (June 1993) and the *IEEE Communications Magazine* (September 1997 and April 2001).

He is the author of the best seller *Protocols for Secure Electronic Commerce*, CRC Press, 2000, now in its second printing. The French version was published by Eyrolles, France under the title *La Monnaie électronique* and is co-authored with Professor A. Sehrouchni.

### All Welcome!

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

**Time:** 7:00 - 9:00 PM, Thursday, November 15, 2001.

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

**Information:** Wayne Owens, (201) 767-3400 x226 ([wowens@ieee.org](mailto:wowens@ieee.org)).

# Crestron Electronics

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Crestron's Rockleigh, New Jersey headquarters is home to Engineering, Sales, and Marketing, with our manufacturing facilities located nearby. Only 15 miles from New York City, yet nestled in a wooded suburban setting, our area provides an outstanding quality of life. Some of our 400 employees are also based in our branch offices in Los Angeles, Chicago, Atlanta and Dallas, or our international offices in eleven countries.

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To discuss specific job openings and how you can join the Crestron team, contact Crestron Human Resources at 800-237-2041 or [careers@crestron.com](mailto:careers@crestron.com)

Please reference IEEE in your response.

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and many others...



Internet touchpanel control system



RF wireless mouse



wall-mounted internet touch panel control system



AM/FM/TV tuner



All names are trademarks or service marks of their respective holders.

NY Computer & Communications  
Society Chapters:

## Seminar: Building A High Volume Scalable Web Site

On November 15th, the New York Chapter of The IEEE Computer and Communications Society is sponsoring a full-day seminar on "Building A High Volume Scalable Web Site."

### About the Seminar

More and more organizations are taking e-business into their own hands by building and operating their own web server infrastructure. In today's fast moving world, a successful web site can experience explosive traffic growths. The success of a web site can quickly be lost by a system that cannot meet the capacity required to meet their user's traffic volume. Stories of web sites that have failed are in the press almost every week. The ability to scale a high volume (traffic) web site infrastructure is a major requirement to be successful. To help computer and communication's professionals meet this challenge, The New York Chapter of The IEEE Computer and Communications Society is sponsoring a full-day seminar on Building A High Volume Scalable Web Site.

### About the Speaker

We have invited leading experts to identify the requirements and solutions that allow a web site to be rapidly scaled to meet the volume growth. Dr. Willy Chiu, IBM Vice-President of Software Division's High Volume Web Sites, will be our keynote speaker. He will discuss the challenges of building and scaling a high volume web site. There will also be speakers from major web site hardware and software infrastructure vendors. At the conclusion of this seminar the attendees will have an understanding of the key technical issues surrounding the building of a High Volume Scalable Web Site.

**Time:** 9:00 AM - 4:45 PM, Thursday, November 15, 2001.

**Place:** Consolidated Edison, Management Dining Room (19th Floor), 4 Irving Place, New York, NY.

**Information:** Yuan Yao (Yuan.Yao@equant.com). For more detailed seminar information, check <http://www.comsoc.org/socstr/chptrs/nyc/>.

## IEEE Vehicular Technology Conference- Sponsors Wanted

The IEEE Vehicular Technology Society will hold its Fall 2001 Conference on October 7-11, 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](http://www.fallvtc2001.org).

Companies that are interested in sponsorship should contact Steve Wilkowski at [swilkowski@lucent.com](mailto:swilkowski@lucent.com).

## Advance to Senior Member Grade

Of the 346,636 members of the IEEE, only 26,125 (7.5%) are Senior Members. Many more of you are qualified to become Senior Members so apply for it now. The IEEE presents an engraved wood and bronze plaque to the new Senior Members.

To become a Senior Member, you need ten years of experience. A Bachelors Degree counts for three of those years and a Masters and Doctorates each count for one year. You don't have to be an IEEE member for ten years. The dues for Senior Members, Members and Associates are the same.

To get information and an application, contact 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](mailto:don@kulite.com).

**Please include your mailing address.**

## A Message From IEEE President - Joel Snyder

Dear fellow IEEE member:

I'd like to tell you about an IEEE service that I've found to be invaluable in all aspects of my professional life. It's a selection of free email newsletters called "What's New @ IEEE."

<http://www.ieee.org/whats-new>

"What's New" provides the latest news on IEEE activities, industry trends, member benefits, career tips, and new IEEE products. There are 11 newsletters for engineers and other technology professionals. I subscribe to all of them, but you can select as many as you would like.

You can choose from the following "What's New @ IEEE" newsletters:

- ◆ Circuits
- ◆ Communications
- ◆ Computing
- ◆ Eye on Washington (USA)
- ◆ Graduates of the Last Decade
- ◆ Libraries
- ◆ Members
- ◆ Power
- ◆ Signal Processing
- ◆ Students
- ◆ Wireless

It's easy to subscribe or unsubscribe, so you control what information you receive. To subscribe, simply logon to <http://www.ieee.org/whats-new>. Then select one or more of the email newsletters, enter your email address and click "subscribe." Your email address will not be shared with anyone outside of IEEE.

I'm very pleased that IEEE has developed a service such as this. I encourage you to sign up for this free "What's New" email newsletter service and give it a try.

Sincerely,  
Joel Snyder  
2001 IEEE President



## **Growth of Electronic Services Drives 2002 Dues Increase**

For the first time since 1996, the IEEE Board of Directors has approved an increase in membership dues. The Board voted at its July meeting to increase base member dues for the 2002 membership year by US \$5 to US \$101. The Board also approved a US \$4 increase to the IEEE-USA assessment and a new Region 1 assessment of US \$2.

According to IEEE President Joel Snyder, during the past five years the IEEE has experienced increased demand for electronic delivery of technical information and member services. The dues increase reflects the costs associated with significant investments in Internet and Web applications.

Among the electronic services the IEEE has launched in recent years are IEEE Xplore; the IEEE Job Site featuring IEEE e-Recruiter; the Personal Email Alias Service; the Online Catalog & Store; IEEE Spectrum Online; the What's New @ IEEE series of e-mail newsletters; and online membership renewal.

## **2002 IEEE Applications Are in the Mail**

The 2002 IEEE membership applications are now in stock. A supply of 2002 applications is currently in the mail to every Student Branch Counselor, every Section MD officer and Section Chair and to all IEEE offices. Only those officers registered with IEEE and listed in the IEEE rosters will receive these materials. Adobe Acrobat "PDF" versions of the 2002 membership applications are now available on the following sites: Member application is at

[http://www.ieee.org/membership/mem\\_serv/genapp.pdf](http://www.ieee.org/membership/mem_serv/genapp.pdf)

Student Application is at

[http://www.ieee.org/membership/mem\\_serv/studapp.pdf](http://www.ieee.org/membership/mem_serv/studapp.pdf)

## **2001 IEEE Annual Election is Underway**

Members began receiving their ballots the first week in September. The balloting period is from 1 September until 12:00 noon on 1 November. Only signed ballots that are received in sealed envelopes will be valid and counted in the election.

Questions with regard to ballots or the election process may be referred to either Fern Katronetsky (f.katronetsky@ieee.org) at (732) 562-3932 or Angela Wyckoff (a.wyckoff@ieee.org) at (732) 562-3934.

## **Be an Ambassador for Engineering, 2002 IEEE Faraday Lecture Scheduled**

Is your local, pre-college school carrying the 2002 IEEE Faraday Lecture? Do they know about it? It's not too early to act as an ambassador for engineering. Schools need a lot of lead-time in order to add events to their schedules.

Inform your local school that on 6 February 2002, 1:00 PM Eastern Standard Time, free downlinking of the 'Smart Living @ home with technology' simulcast will be available from IEEE Educational Activities (EA). Teachers' materials will be posted on the Internet in September. Then, consider volunteering at the school to answer questions about being an engineer on the day of the broadcast. The annual acclaimed Lecture is a one-hour, PBS quality production featuring lively participation from the onsite London audience. Read more about it at <http://www.ieee.org/eab/precollege/faraday/index.htm>. For more information contact Celeste Torres at [c.torres@ieee.org](mailto:c.torres@ieee.org).

## **Free On-line How-To Guide for Course Design Available from IEEE**

The IEEE Educational Activities Board (EAB) has posted an online tool for course designers, "Reference Guide for Instructional Design and Development." This how-to guide was developed by EAB in partnership with Telcordia Technologies to help individuals design courses and tutorials efficiently and effectively. Based on the Systematic Design of Instruction by Walter Dick and Lou Chaney, the guide outlines six distinct steps to acquire "sound principles of design" when creating courses. These clear steps are displayed on a colorful, friendly webpage. Learn to:

- Assess the needs of the instructional situation
- Analyze the learners
- Write learning objectives
- Select an instructional strategy that fits you assessment
- Develop materials that enhance your strategy
- Evaluate your work

With each step there is a concise concept outline, tools to aid in the application of the step, and online references that can add to the material in the outline. Links to suggestions for further study are on each page. This guide will help designers to add education value to their tutorials, which can qualify them for Continuing Education Unit credits. Access this guide at [www.ieee.org/organizations/eab/tutorials/r efguide/mms01.htm](http://www.ieee.org/organizations/eab/tutorials/r efguide/mms01.htm).

NJ Consultants' Network:

## Engineering Opportunities at Fort Monmouth and Picatinny Arsenal

On Thursday, October 25, 2001, the IEEE Consultants' Network of Northern NJ (CNNNJ) will present an outstanding seminar on "Engineering Opportunities at Fort Monmouth and Picatinny Arsenal" by Joseph Brady and Philip Villella.

### About the Talk

There are various engineering opportunities at Fort Monmouth and Picatinny Arsenal. Knowing what and where they are, engineering consultants, small engineering companies and engineers, in general, can capitalize on those opportunities. Two eminently qualified speakers will discuss a variety of current and future programs/projects resident at their facilities. They will also provide helpful information, such as web sites, organization chart and points of contacts to facilitate exploring Engineering Opportunities.

### About the Speakers

Joseph P. Brady is the chief of Small

and Disadvantaged Business Utilization Office at Fort Monmouth. He has an extensive background in Procurement, Contracts, Technical Services and helping small businesses.

Mr. Brady is the recipient of the Secretary of the Army's award for Outstanding Achievement in Material Acquisition and has been awarded both the CECOM and AVCOM Commanders award for Civilian Service. Recently, he was awarded the Achievement Medal for Civilian Service for CECOM/Tinker AFB Rapid Response Program.

Mr. Brady has an MSA in Business Management from Central Michigan University, MI, and also BSBA in Business Management from Shippensburg State College, PA.

Philip D. Villella, is the Business & Industrial Management Team Leader supporting R&D and Supply Acquisition at Picatinny Arsenal. He is also the Small Business Advocate for Picatinny Arsenal. He has many years of experience in Procurement, Production, Quality Control and assisting small businesses of various kinds.

Mr. Villella is the recipient of the 1996 Tank Automotive-Armaments Command, Army Research and Development Engineering Center, Small Business

Award and the 2000 Army Materiel Command Small Business Award.

Mr. Villella has a BA degree from Jersey City State College and has attended numerous production, quality, and management courses sponsored by the federal government.

### 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. There is no charge for admission.

**Time:** 7:30 PM, Thursday, October 25, 2001.

**Place:** KDI Triangle, 60 S. Jefferson Road, 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](http://www.TechnologyOnTap.org).

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## IEEE North Jersey Section Newsletter Advertising

The “NEWSLETTER” is the non-profit professional publication of the North Jersey Section of the Institute of Electrical and Electronics Engineers, Inc.

Published monthly except June (electronic only) and July, it is distributed to approximately 5,000 qualified members of the section.

Editorial content is pertinent and timely. It contains current information and details about special meetings, field trips, and seminars scheduled during the month and for future dates.

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# Electric Power Cables

*A One-Day IEEE Seminar*

*Presented by the IAS and PES Chapters, North Jersey Section*

*December 7, 2001*

*9:00AM to 3:00PM*

The PES & IAS Chapters will sponsor a daytime seminar on the design, operations, testing, electric characteristics and failure modes of medium and low voltage electric power cables. Topics to be covered in the session include:

- 1) Conductor Physical and Electrical Properties – Copper & Aluminum materials
- 2) Insulation Systems – Low Voltage & High Voltage Cables
- 3) Cable Shielding – Tapes, Wires & Other Options
- 4) Jacket Materials
- 5) Cable Standards & Specifications
- 6) Cable Characteristics – Resistance, Inductance, Capacitance, Stress Distributions
- 7) Ampacity Calculations – Dielectric Loss, Conductor Loss & Shield Loss

The seminar leader is Lawrence Kelly who has an extensive career in the wire and cable industry. His background includes cable manufacturing, research and engineering assignments. He served as Director of Engineering Development at Okonite Cable. He is past Chairman of the IEEE Insulated Conductor Committee (ICC) and a voting member on the National Electric Code (NEC). He has also taught Cable Engineering Courses at UCLA and the University of Wisconsin.

<b>LOCATION:</b>	GPU Energy, 300 Madison Avenue, Morristown NJ. Directions: Route 287 to Route 124 Exit in Morristown. Follow signs toward Madison, GPU is about 1.5 miles on the left side.
<b>COST:</b>	Registration fee for the seminar prior to November 15 <sup>th</sup> is \$150 (non-IEEE members), \$100 (IEEE Members), and \$25 (Students with valid ID). Registrations received after November 15 <sup>th</sup> must include a late fee of \$25.00. The Seminar fee includes lunch and break refreshments.
<b>INFORMATION:</b>	R. V. Rebbapragada, Washington Group, International, 510 Carnegie Center, Princeton, NJ 08540, phone 609-720-3209, e-mail r.rebbapragada@ieee.org

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## REGISTRATION – Electric Power Cables, December 7, 2001

Reserve your place by mailing a check **payable to "IEEE North Jersey Section"** to: Ken Oexle  
11 Deerfield Road  
Whippany, NJ 07981

Name \_\_\_\_\_

Address \_\_\_\_\_

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IEEE # \_\_\_\_\_ Student @ \_\_\_\_\_ Non IEEE \_\_\_\_\_

Payment Enclosed \$ \_\_\_\_\_ Add \$25 late registration fee after November 15<sup>th</sup>