



The IEEE

# Newsletter

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

## Last Call for the Professional Skills Development Workshop

This message goes out to all Area B schools as a reminder that the PSDW is coming up on Saturday, November 6, 1999. This event will be held at Stevens Institute of Technology, Hoboken, NJ in the main auditorium of the Burchard building from about 9 AM to 5 PM.

Don't miss this chance to attend an outstanding set of interactive seminars by professional speakers. More importantly, don't miss this chance to acquire those critical on-the-job skills that will propel you into a stellar engineering career. This year's workshop will feature new speakers and new topics. Some include teamwork, leadership, time management, public speaking and presenting, the business of product development and more. Most of the invited speakers have many years of practical and successful engineering experiences. Ask questions and learn now before taking that first job.

YOU MUST pre-register, that is the only way we can reserve seats for the seminars and lunch. Go to the NNJ SAC website at:

<http://menger.eecs.stevens-tech.edu/~apatel3/ieee.html>

and fill out the PSDW on-line form. Find links to more info on topics, speakers, and directions. Attendance is FREE, LUNCH and refreshments are FREE, and if you are an IEEE member, a copy of the workshop proceedings is FREE (else \$2/copy that you order). For more info contact Amit Patel NNJ SAC chair, [a.j.patel@ieee.org](mailto:a.j.patel@ieee.org) or 973-284-2708.

*NJ EDS, C&S Chapters:*

## Challenges, Trends and Recent Developments in Silicon Technology

On November 10, 1999, the IEEE NJ Section Electron Devices, and Circuits and Systems Chapters together with the New Jersey Institute of Technology will host a talk on "Challenges, Trends and Recent Developments in Silicon Technology." The speaker will be Dr. James Hillenius.

### About the Talk

The silicon industry has been improving in productivity on an exponential growth path for the last several decades. This trend is projected to continue for many years to come. The topics in this talk will emphasize the basic device developments that affect the operation and improvement of the silicon technology applications and the directions that the technology will evolve to over the next several years. Devices have been fabricated with features in the 30nm range. The scaling continues as long as the equipment that allows the smallest features of the devices to be printed are available. To go beyond the traditional techniques for scaling devices, it will require better understanding of the device operation in the smallest dimensions as well as the incorporation of new structures and device architectures. Recent developments in transistor design and the further understanding of the physics of the transistors will be presented.

### About the Speaker

Steven James Hillenius received his BS degree from the University of Delaware in 1973 and PhD degree from the University of Virginia in 1979, both in physics. He was an Assistant Professor of physics at the University of Virginia from 1978 to 1981 where his research involved low

temperature solid state physics. In January of 1981 until the present he has worked for Bell Laboratories. He is the Head of the ULSI Device Technology Research Department where he manages the research of a department consisting of device research and computer aided design of processing and devices. Dr. Hillenius is the chair of the 1999 International Technology Roadmap for Semiconductors subcommittee on Process Integration and Devices Structures. He has eight patents in the area of semiconductor device structures and has published over 50 articles on semiconductor devices and processing. Dr. Hillenius is the IEEE Electron Device Society Publications Chair and an elected member of the EDS ADCOM. He has held many responsibilities within the IEEE Electron Device Society including, 1996 General Chairman of the International Electron Devices Meeting (IEDM), 1995 Technical Chairman of the IEDM. From 1984 to 1989 he was the Associate Editor of IEEE Electron Device Letters. In 1996 he was elected to the grade of IEEE Fellow with the following citation: "For contributions to the field of solid-state technology and its applications to integrated circuits."

### All Welcome!

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

**Time:** 7:00 PM, Wednesday, November 10, 1999. Free buffet will be starting at 6:15 PM.

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

**Information:** Dr. Richard Snyder (973) 492-1207 (RS Microwave), Dr. Durga Misra or Dr Edip Niver (973) 596-3542 (NJIT), Dr. Chandra Gupta (973) 633-4469, Howard Leach (973) 540-1283.

# November 1999

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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 Milton Korn (973) 365-2757, [miltonkorn@aol.com](mailto:miltonkorn@aol.com).*

NJ PES/IAS:

## Application of Microturbines

On November 16, 1999 the IEEE North Jersey Power Engineering Society and Industrial Applications Society Chapters will host a presentation on "Application of Microturbines." The speaker will be Mr. Shailendra K. Suman.

### About the Talk

The talk will cover the following subjects:

- Value Propositions
- Technology Overview
- Market Dimensions
- Case Studies
- Product Status
- Demonstration Program
- Critical Success Factors

### About the Speaker

Shailendra K. Suman is the Managing Director of Microturbine Business Unit at PSEG Energy Technology, one of the most active energy services companies in the Northeast and a subsidiary of Public Services Enterprise Group. Since joining the company in 1998, he has been responsible for the development of distributed generation business product line, which includes product design, development of distribution/service channel, product marketing and internal operations. Mr. Suman has an MS degree in Mechanical Engineering and an MBA in Finance and Strategy. He is currently a member of Distributed Power Coalition of America, Conference Board International Council of Innovation & Technology Management, EPRI Council of Distributed Resources, and IEEE.

**Time:** 7:00 PM, Tuesday, November 16, 1999 (rescheduled due to Hurricane Floyd).

**Place:** PSE&G's Edison Training and Development Center, Edison, NJ.

**Directions:** On Route 1 north make first sharp right after passing through the I-287 interchange. This is Pierson Avenue. Make a left into the PSE&G compound and follow the driveway to its end.

**Information:** Tom Piascik (973) 430-6692 or Ken Oexle (973) 386-1156.

## IEEE Member - Get - a - Member Campaign

Recruit new members and get a credit voucher and a chance to win 1 FREE IEEE membership.

Campaign dates are September 1, 1999 to August 15, 2000.

Recruit	US\$ credit voucher amount
1 - 2 new members	a chance to win 1 year of FREE IEEE membership
3 - 5 new members	\$10.00 + a chance to win 1 year of FREE IEEE membership
6 - 9 new members	\$20.00 + a chance to win 1 year of FREE IEEE membership
10 or more new members	One year FREE IEEE membership for the year 2001

Get complete information and the number of membership applications you need 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](mailto:don@kulite.com).

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OF NORTHERN NJ**

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## **When Bad Things Happen to Good**

### **Algorithms – Adventures in Applied Estimation Theory**

At the November 9, 1999 meeting of the NJ Section IEEE Control Systems Society, the talk will be on "When Bad Things Happen to Good Algorithms – Adventures in Applied Estimation Theory." The speaker will be Joel Reiss.

#### **About the Talk**

Innovative interactive Kalman Filter and other signal processing algorithms were developed as part of the Link-16 MIDS terminal TACAN subsystem design. Since TACAN and Link-16 occupy a common frequency band and space on fighter platforms is at a premium, the MIDS terminal was programmed to assume the responsibilities of the ARN-118 TACAN unit. Detailed software and laboratory hardware simulations predicted outstanding performance in the presence of extremes of signal strength and platform trajectories. Initial flight testing, however, revealed unexpected system failures not seen in the laboratory environment. This presentation will provide a detailed overview of the basic algorithmic design, descriptions of flight test failure modes, and explanations of corrective action required to achieve system performance goals.

#### **About The Speaker**

Joel Reiss is a Senior Member of the Technical Staff at Marconi Aerospace CNI Division. He has been primarily responsible for system analysis, software design, development, and testing for the family of Link-16 JTIDS/MIDS Data Link Terminals since he joined Marconi in 1970. His areas of interest include Hybrid Navigation, Communications Theory, Software Development, and various applications of estimation theory, including the TACAN subsystem discussed here. His education includes a BSME from Cooper Union, an MSME from the NYU School of Engineering, and Additional Graduate Work at Polytechnic Institute of NY.

**Time:** 5:00-6:00 PM, Tuesday, November 9, 1999.

**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:** Professor Timothy Chang (973) 596-3519 or [chang@megahertz.njit.edu](mailto:chang@megahertz.njit.edu).

## **North Jersey Section Activities November 1999**

**Nov. 3**—"NJ Section Executive Committee Meeting" – 7:00 PM, ITT, 100 Kingsland Road, Clifton, NJ. Milton Korn (973) 365-2757 or [miltonkorn@aol.com](mailto:miltonkorn@aol.com).

**Nov. 6**—"Professional Skills Development Workshop" - 9:00AM-5:00PM, Stevens Institute of Technology, main auditorium of the Burchard Building, Hoboken, NJ. Pre-registration required. Amit Patel at [a.j.patel@ieee.org](mailto:a.j.patel@ieee.org) or (973) 284-2708.

**Nov. 9**—"Legal Pitfalls and Survival Techniques for Internet Users" - NJ Computer Chapter, 7:00 PM, Dialogic Inc, 1515 Route 10 East, Parsippany, NJ. Howard Leach, (973) 540-1283.

**Nov. 9**—"When Bad Things Happen to Good Algorithms –Adventures in Applied Estimation Theory" – NJ Control Systems Society, 5:00 PM, NJIT, 202 ECE Center, Newark, NJ. Professor Timothy Chang (973) 596-3519 or [chang@megahertz.njit.edu](mailto:chang@megahertz.njit.edu).

**Nov. 10**—"Challenges, Trends and Recent Developments in Silicon Technology" – EDS/C&S Chapters, 7:00 PM, NJIT, Room 202, ECE Building, Newark, NJ. Dr. Richard Snyder (973) 492-1207 (RS Microwave), Dr. Durga Misra or Dr Edip Niver (973) 596-3542 (NJIT), Dr. Chandra Gupta (973) 633-4469, Howard Leach (973) 540-1283.

**Nov. 11**—"Video Segmentation for MPEG-4 and Its Application to Virtual Interactive Games" - NJ Signal Processing Chapter, 5:00 PM (refreshments at 4:45 PM), NJIT, 202 ECE Center, Newark, NJ. Dr. Yun-Qing Shi (973) 596-3501 (NJIT) or Dr. Alfredo Tan (201) 692-2324 [tan@mailbox.fdu.edu](mailto:tan@mailbox.fdu.edu) (Fairleigh Dickinson University).

**Nov. 15**—"The Art in Automation" – NJ Control Systems Society, 5:00-6:00 PM, NJIT, 202 ECE Center, Newark, NJ. Professor Timothy Chang (973) 596-3519 or [chang@megahertz.njit.edu](mailto:chang@megahertz.njit.edu).

**Nov. 16**—"Application of Microturbines" – NJ IAS/PES Chapters, 7:00 PM, PSE&G Training Center, Route 1, Edison, NJ. Tom Piascik (973) 430-6692 or Ken Oexle (973) 386-1156.

**Nov. 18**—"Throughput Enhancement in Wireless Packet Data Systems for Internet Applications" – NJ Communications Chapter, 4:30 PM, NJIT, 202 ECE Center, Newark, NJ. Hongya Ge (973) 642-4990.

**Nov. 18**—"e-Commerce Seminar" – NY Communications Society Chapter, 8:30 AM registration, the auditorium of Consolidated Edison, 4 Irving Place, New York, NY. James P. Barbera at fax (212) 465-8877 or [j.p.barbera@ieee.org](mailto:j.p.barbera@ieee.org), or Dimitar Georgievski, (212) 961-4946, [georgievski.unprofor@un.org](mailto:georgievski.unprofor@un.org).

**Nov. 23**—"Face Animation: Methodology and Application" – NJ Signal Processing Chapter, 5:00-6:00 PM (refreshments at 4:45 PM), NJIT, 202 ECE Center, Newark, NJ. Dr. Yun-Qing Shi (973) 596-3501 (NJIT) or Dr. Alfredo Tan (201) 692-2324 [tan@mailbox.fdu.edu](mailto:tan@mailbox.fdu.edu) (Fairleigh Dickinson University).

### **Upcoming Meetings**

**Dec. 1**—"Wireless Datacommunications Seminar" – NY Communications Society Chapter, 9:00 AM - 4:30 PM, the auditorium of Consolidated Edison, 4 Irving Place, New York, NY. Bertil Lindberg (212) 825-1527 [b.lindberg@ieee.org](mailto:b.lindberg@ieee.org) or see <http://www.ewh.ieee.org/r1/metsac>.

**Dec. 1**—"International Conference on Multimedia & Expo - Paper Submission Deadline" - see <http://www.ieee-multimedia.poly.edu> for details.

**Dec. 8**—"Efficient Numerical Analysis and Design of Microstrip Patch Antennas and Their Applications in GPS Systems" - MTT/S/AP-S Chapter, 7:00 PM, NJIT, 202 ECE Center, Newark, NJ. Dr. Edip Niver (973) 596-3542 (NJIT), Willie Schmidt (973) 492-0371, or Dr. Lale Alatan (973) 596-8453.

**Members and Non-Members Welcome**

# **PLEASE POST**

*NJ Computer Chapter:*

## **Legal Pitfalls and Survival Techniques for Internet Users**

On November 9th, 1999, the IEEE North Jersey Section Computer Chapter will host a presentation on "Legal Pitfalls and Survival Techniques for Internet Users" by Eli Rohn.

### **About the Talk**

Whether you just use e-mail, surf the Internet for pleasure, have your own Web site or are planning on putting one up either for private or business use, this presentation could be timely for you.

Did you know that just by sending an e-mail to a friend or by posting a message on a news-group, you may expose yourself to intrusive snooping by employers and government agencies? Are you aware that you could be subjected to a defamation law suite or hear from someone's attorney about alleged copyright violations?

This presentation was developed for an audience with previous Internet and business experience, but without a legal background. However, if you have a legal background, you may find this presentation beneficial!

Fortune Magazine recently covered the collapsing of geographical borders issue as a result of the Internet commerce. Will your Web site violate EU guidelines? Will you be banned from doing business with the EU as a result? Come and find out.

You will learn about what legal pitfalls exist and how you can avoid them. You will learn about legal precedence that has already taken place in the courts. You will learn about what is cooking in the legislature that may affect you, your business, or your employer.

### **About the Speaker**

Eli Rohn is the Managing Member of Rohn Consulting LLC. He has a Masters degree in Management of Information Systems from NJIT and has published two technical books and over 30 professional articles. He renders consulting services to Fortune 500 companies on top of running his business. Eli, who started as a programmer, has over 15 years of experience with Mainframes, PCs, Networks, and has been involved with Internet technology for over five years.

### **All Welcome!**

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

**Time:** 7:00 PM, Tuesday, November 9, 1999.

**Place:** Dialogic, Inc., 1515 Route 10

(East bound from Route 202), Parsippany, NJ.

**Information:** Howard Leach (973) 540-1283 or h.leach@ieee.org.

*NJ Signal Processing Chapter:*

## **Face Animation: Methodology and Application**

On Tuesday, November 23, 1999, the IEEE North Jersey Section Signal Processing Society Chapter will host a presentation on "Face Animation: Methodology and Application." The speaker will be Dr. Jörn Ostermann.

### **About the Talk**

Computer simulation of human faces has been an active research area for a long time, resulting in a multitude of facial models and several animation systems. Current interest for this technology is clearly shown by its inclusion in the MPEG-4 standard. We will discuss 2 approaches of facial animation: In MPEG-4, avatars are based on 3D geometric models and deformation rules defining facial expressions that can be downloaded to a terminal. With this technology, cartoon like characters and faces can be animated. Recent developments strive for photo-realistic avatars that look and behave human-like. We present a sample-based approach based on recordings of a real human. Independent of the avatar technology, a tight integration with a speech synthesizer is desirable for applications in E-commerce and Human Computer Interface design.

Despite the research in facial animation, it is less clear what the actual applications of Facial Animation (FA) will be. We have therefore undertaken experiments on 380 subjects in order to explore the benefits of FA. Part of the experiment was aimed at exploring the objective benefits, i.e. to see if FA can help users to perform certain tasks more accurately or efficiently. The other part of the experiment was aimed at more subjective benefits, like raising the level of appeal to the user, gaining more users' interest, filling in the waiting times for server access so the users do not get bored. The results show that FA aids users in understanding spoken text in noisy conditions; that it can effectively fill the waiting times and make them more acceptable to the user; and that it makes services more attractive to the users, particularly when they compare directly the same service with or without the FA.

### **About the Speaker**

Jörn Ostermann studied Electrical Engineering and Communications Engineering at the University of Hannover and Imperial College in London, respectively. He received Dipl.-Ing. and Dr.-Ing. from the University of Hannover in 1988 and 1994, respectively. From 1988 till 1994, he worked as a Research Assistant at the Institut für Theoretische Nachrichtentechnik conducting research in low bit-rate and object-based analysis-synthesis video coding. In 1994 and 1995 he worked in the Visual Communications Research Department at AT&T Bell Labs on video coding. He has been a member of Image Processing and Technology Research within AT&T Labs - Research since 1996. He is working on multi-modal human-computer interfaces with talking avatars, video coding, shape coding, standardization, and image analysis. From 1993 to 1994, he chaired the European COST 211 sim group coordinating research in low bitrate video coding. Within MPEG-4, he organized the evaluation of video tools to start defining the standard. Later, he chaired the Adhoc Group on Coding of Arbitrarily-shaped Objects in MPEG-4 Video. Jörn was a scholar of the German National Foundation. In 1998, he received the AT&T Standards Recognition Award and the ISO award. He is a member of IEEE, the IEEE Technical Committee on Multimedia Signal Processing, and chair elect of the IEEE CAS Visual Signal Processing and Communications (VSPC) Technical Committee. His current research interests are video coding, computer vision, 3D modeling, face animation, coarticulation of acoustic and visual speech, computer-human interfaces, and speech synthesis.

### **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, Tuesday, November 23, 1999

**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. Yun-Qing Shi (973) 596-3501 (NJIT) or Dr. Alfredo Tan (201) 692-2324 [tan@mailbox.fdu.edu](mailto:tan@mailbox.fdu.edu) (Fairleigh Dickinson University).

## *NJ Signal Processing Chapter:* **Video Segmentation for MPEG-4 and Its Application to Virtual Interactive Games**

On Thursday, November 11, 1999, the IEEE North Jersey Section Signal Processing Society Chapter will host a presentation on "Video Segmentation for MPEG-4 and Its Application to Virtual Interactive Games." The speaker will be Dr. Liumg-Kuo Liu.

### **About the Talk**

An overview on MPEG-4 video coding and challenges for video objects processing will be first provided. For these object-based video processing applications, a dynamic model based video segmentation and tracking algorithms as a generic implementation framework will be presented. These technologies will be demonstrated in real systems in support of vision augmented virtual interactive games. The objective is to illustrate how these techniques could be applied to a broad spectrum of multimedia applications.

Low cost vision based applications that can be implemented in software in a PC are of special interest. It is these constraints that make difference in developing vision algorithms. Specifically, the problem of video object segmentation/tracking will be focused on. A belief metric, based on motion histogram and trajectory prediction, for the purpose of fusing pixel level segmentation and object level segmentation will be introduced. Different statistical models are then used for dynamically modeling video objects and background based on spatial and temporal information. Several prototype vision augmented virtual interactive games will be demonstrated. In these applications, players immerse themselves inside a game and can virtually interact with other animated characters without being constrained by helmets, gloves, special sensing devices, or blue screen background environment.

### **About the Speaker**

Dr. Liumg-Kuo Liu received a PhD degree in electrical engineering from the University of Maryland at College Park in 1993. In the same year, he joined IBM T.J. Watson Research Center, Yorktown Heights, New York, where he was involved in the algorithmic development and architecture design of a multi-points and multi-standards capable video conferencing system. Dr. Liu is currently a Research Staff Member in the Multimedia Technologies department at IBM. He has participated in several

international standards committees such as H.324 and MPEG-4. He has worked on system architectures for H.324 video conferencing, very low bit rate video coding, motion estimation, low delay MPEG-2 video coding, MPEG-4 system multiplexing, immersion computer game systems, and vision-enhanced computer user interface system. Dr. Liu's research interests include digital video compression technology, digital signal and image processing, computer vision, multimedia communications, and neural networks.

### **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 PM, Thursday, November 11, 1999

**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. Yun-Qing Shi (973) 596-3501 (NJIT) or Dr. Alfredo Tan (201) 692-2324 [tan@mailbox.fdu.edu](mailto:tan@mailbox.fdu.edu) (Fairleigh Dickinson University).

## **Student Leadership Training Workshop Held October 2nd**

On Saturday October 2nd, NJIT hosted the SLTW at the Microelectronics building on the Newark Campus. The event was a success even with its minimal attendance. The day featured Amy Galarowicz, NNJ Section SAC member, as the workshop facilitator. She covered branch operations, awards, and SPACs/SPAVs. The workshop also included two guest speakers, Mirelle White and Adrienne Hahn, from IEEE HQ who discussed IEEE financial advantage, member benefits, student services, and GOLD.

This workshop concludes leadership training in greater Area B. Students are reminded that these workshops will return next fall and they should plan to send their branch officers to get the critical information about IEEE branches, services, and how to plan and hold their own events. For more info contact Amit Patel NNJ SAC chair, [a.j.patel@ieee.org](mailto:a.j.patel@ieee.org) or 973-284-2708.

## *NJ Control Systems Society:* **The Art in Automation**

At the November 15, 1999 meeting of the NJ Section IEEE Control Systems Society, the talk will be on "The Art in Automation." The speaker will be Richard Armington.

### **About the Talk**

Automating a process or building a robot to perform a specific task is often considered a purely analytical exercise. However, under closer scrutiny, we see that it is a cognitive process that encompasses much more than simply analyzing process requirements and mechanical specifications. NJIT currently possesses two robots that were donated by Lucent Technologies, the AT&T Workstation and the High Precision Bonder. This talk will discuss design decisions and their implications using examples from the development of these two instruments. We will explore the art of automation looking at questions such as: "We want you to automate this process, can you do it?", "Help! I think we've got gremlins!" and "So, just how accurate is your robot?"

### **About The Speaker**

Richard Armington received his Bachelor degree in Fine Art from the University of New Mexico, specializing in photography. After working in photography for a while he returned to school, receiving an Associate degree in Applied Science in Electrical Engineering Technology from Mercer County Community College and later completed a Master of Science degree in Computer Science at NJIT where he concentrated in machine vision. As a Member of Technical Staff at Lucent Technologies (AT&T) since 1983, he has spent more than a decade in automation and machine vision technologies. He was one of the first to demonstrate that machine vision could be used to correct positioning errors in automated equipment. Later he was instrumental in developing high precision automated placement systems for electro-optic components. He has been awarded 6 patents for inventions related to automation and machine vision. Currently Richard is the principal software systems architect in an RF test organization tasked with developing embedded wireless RF test capability.

**Time:** 5:00-6:00 PM, Monday, November 15, 1999.

**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:** Professor Timothy Chang (973) 596-3519 or [chang@megahertz.njit.edu](mailto:chang@megahertz.njit.edu).

# The New York Chapter of The IEEE Communications Society

Reserve Thursday, November 18, 1999 for a full-day seminar on

## *e-Commerce*

sponsored by the New York Chapter of the IEEE Communications Society.

This full-day seminar will cover the technical aspects of electronic commerce, e-commerce, such as security and authentication of payments and orders, website hosting, software, infrastructure, traffic handling and routing, etc. Top specialists in these areas are being invited to speak. As the seminar is being developed, you will find more information on our website at <http://www.comsoc.org/socstr/chptrs/NYC/com19ny4.htm>.

Location: The Auditorium of Consolidated Edison, 4 Irving Place, New York, NY (one block East of Union Square).  
Registration will start at 8:30 AM, the seminar at 9:00 AM and end at 4:30 PM with breaks for coffee and lunch.

For further information contact James P. Barbera at fax (212) 465-8877, or e-mail [j.p.barbera@ieee.org](mailto:j.p.barbera@ieee.org), or Dimitar Georgievski, telephone (212) 961-4946, e-mail [georgievski.unprofor@un.org](mailto:georgievski.unprofor@un.org).

	Fee
IEEE Member	\$150
New (1999) IEEE Members	\$135
Students w/ID	\$35
Other	\$175

### REGISTRATION

You can register on-line at

[http://www.ewh.ieee.org/r1/new\\_york/Rg991118.htm](http://www.ewh.ieee.org/r1/new_york/Rg991118.htm)

or you can fill in and mail the following Registration Form to Karl Wummer, 39 Beechwood Avenue, Manhasset, New York 11030.

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Registration for the IEEE Communications Society's seminar on e-Commerce on Thursday, November 18, 1999.

Your name: .....IEEE member No.: .....

Your company: .....

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## METSAC

### Metropolitan Sections Activities Council

MEMBER SECTIONS: Long Island, New Jersey Coast, New York, North Jersey, and Princeton-Central Jersey

Reserve Wednesday, December 1, 1999 for a full-day seminar on

## Wireless Datacommunications

sponsored by IEEE METSAC, the IEEE Communications Society, the IEEE Computer Society and participating manufacturers, consultants and users.

Location: Auditorium, Consolidated Edison, 4 Irving Place, New York, NY (one block East of Union Square)

The seminar will have a morning panel session from 9:00 AM to 12:00 noon covering **Current and Future Technology of Wireless Datacommunications**.

Vendors and manufacturers have been invited to speak about the industry's products. At this point in time Donna Campbell, Director of Ericsson's CyberLab New York, and Mark Vonarx, Senior Director, Marketing and Sales, Omnipoint Technologies, Inc. have accepted to address the seminar. Motorola has promised a prominent speaker, or two. Speakers from AT&T Wireless, Nokia, Nortel Networks, Bell Atlantic Mobile, Goldmine Software, the New York Police Department, Nortel Networks, Qualcomm, and Siemens have also been invited.

An afternoon panel session from 1:30 PM to 4:30 PM will cover **Applications of Wireless Datacommunications**.

At this point in time Joel Virey, Regional Manager, Goldmine Software, and Jeffrey A. Shury, Kofax Image Products will address user aspects. Other major consultants and users have been invited for this panel session.

Further information will be posted on our website at <http://www.ewh.ieee.org/r1/metsac>. You can also call Bertil Lindberg at (212) 825-1527 or e-mail: [b.lindberg@ieee.org](mailto:b.lindberg@ieee.org).

<b>FEE:</b>	IEEE Members:	\$150:00
	Non-members:	\$195:00
	Students w/ID	\$45.00

### REGISTRATION

Advanced registration is required.

You can register on-line at <http://www.ewh.ieee.org/r1/metsac> and charge the fee to a credit card

or complete and mail the following registration form to Bertil Lindberg, 3 Hanover Square Suite 10F, New York, NY 10004-2622

Registration for the METSAC seminar on **Wireless Datacommunications** on Wednesday, December 1, 1999.

Your name: ..... IEEE member No.: .....

Your company: .....

Your mailing address: .....

.....

City: ..... State: .....

Your telephone number: ..... E-mail: .....

Bill my company ☐ Purchase No.: .....

My check No. .... in the amount of \$..... Is enclosed

# International Conference on Multimedia & Expo

July 30 - August 2, 2000  
New York City

<http://www.ieee-multimedia.poly.edu>

International Conference on Multimedia & Expo 2000 is the first IEEE multimedia conference that will take place in joint collaboration with four IEEE societies. The same four IEEE societies that have recently launched the IEEE Transactions on Multimedia, namely the Circuits and Systems Society, the Computer Society, the Signal Processing Society and the Communications Society have again come together in making this one-of-a-kind conference a reality.

The goal is to unify all IEEE as well as non-IEEE multimedia related activities under the common umbrella of ICME 2000 - the millennium multimedia meeting. It is expected that this will become a yearly event as the flagship Multimedia conference of the IEEE. New York City (the Big Apple) is uniquely suited for this first-time event in view of its large concentration of high tech Industries, first-rate academic institutions and numerous small multimedia companies. The intent is to blend the traditional IEEE conference framework into an Expo by providing the industry an opportunity to showcase products.

Authors should submit a four-page manuscript in double-column format including authors' names, affiliations and a short abstract. Only electronic submission (in postscript format) will be accepted. Electronic submission procedure will be made available at the conference web site:

<http://www.ieee-multimedia.poly.edu>

Topics covered include but are not limited to the following:

- ◆ Signal processing for media integration
- ◆ Components and technologies for multimedia systems
- ◆ Human-machine interface and interaction
- ◆ Multimedia databases and file systems
- ◆ Multimedia communication and networking
- ◆ System integration
- ◆ Applications
- ◆ STDS standards and related issues

Once accepted, the authors will be asked to prepare a four-page camera ready paper to appear in the conference proceedings and CD-ROM proceedings.

Proposals for special sessions and half-day or full-day tutorial courses may be submitted to the respective chairs before the respective deadlines. Visit the conference web site for further information.

## Deadlines

December 1, 1999	Submission of regular papers
February 1, 2000	Proposals for panels, tutorials, demos, exhibit
March 1, 2000	Notification of acceptance for papers
March 15, 2000	Notification of acceptance for proposals
April 1, 2000	Paper camera-ready copy due