

The



IEEE Newsletter

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

NORTH JERSEY SECTION CELEBRATES 50 YEARS!

NJ EDS, C&S & LEOS Chapters:

Carbon Nanotubes

On May 12, 2004, the IEEE NJ Section Electron Devices, and Circuits and Systems Chapter, Laser and Electro Optics Chapter, together with the New Jersey Institute of Technology will host a talk on "Carbon Nanotubes." The speaker will be Dr. Haim Grebel.

About the Talk

Carbon nanotubes have stimulated much attention in the last few years due to their extraordinary electrical, mechanical and chemical properties. These tiny tubes, with diameters on the order of 1 nanometer, portray extremely high electrical conductivity values and mechanical strength as good as diamond. Potential applications span from electronic circuitry, one-electron logic gates, sensor systems, special purpose coatings and ultra-fast optical switches. In this talk, Dr. Grebel will dwell on present and future status of carbon nanotubes in the general context of Nanotechnology.

About the Speaker

Haim Grebel received his PhD in Physics in 1985 from the Weizmann Institute of Science, Israel. He is currently a Professor of Electrical and Computer Engineering and a Director of the Imaging Center at NJIT.

All Welcome!

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

Time: 7:00 PM, Wednesday, May 12, 2004. 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.

Information: Dr. H. Grebel (973) 596-3538 (grebel@njit.edu).

NJ MTT/AP Chapter:

EMC/EMI & PCB

Design Shielding

Seminar

On May 19th, 2004, the IEEE NJ MTT/S/AP-S Chapter together with the New Jersey Institute of Technology will host a free seminar on "EMC/EMI & PCB Design Shielding." The speaker will be Thomas Moyer.

About the Seminar

The basic international standards used by the EMC community to specify transient immunity performance of electronic devices used in household, commercial and industrial are covered in this seminar. To insure that EMC immunity is maintained, the electronic designers must consider the pc board design, board layout, grounding, component placement and lead dress in their electronic products.

This seminar will review the conducted transient immunity requirements of the European Union so that EMC requirements can best be met. As a

result, the attendees will be able to determine if they are prepared to meet current and future transient immunity requirements from a testing standpoint.

About the Speaker

Thomas C. Moyer graduated from Drexel University in Philadelphia with a BSEE degree. He has worked for Ford Motor Company designing automotive electronics systems and for Ametek U.S. Gauge designing aircraft engine instruments. More recently, he has been a sales engineer and regional sales manager. He joined Amplifier Research in 1996 as a product line marketing specialist.

All Welcome!

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

Time: 2:00 PM, Wednesday, May 19, 2004. A free buffet will be offered prior to the meeting.

Place: BAE Systems (Formerly GEC-Marconi), 164 Totowa Road, Wayne, NJ.

Information: Dr. Edip Niver (973) 596-3542 (NJIT) or Har Dayal (973) 633-4618.

Want the latest meeting announcements and updates? Visit the IEEE North Jersey Section Newsletter Webpage at

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

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NEWSLETTER STAFF

Editor Keith Saracinello
Business Manager..... Keith Saracinello
k.Saracinello@ieee.org (908) 791-4067

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IEEE NJ SECTION HOME PAGE

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

IEEE NJ SECTION NEWSLETTER HOME PAGE

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SECTION OFFICERS

Chairman Dr. Durga Misra
dmisra@njit.edu (973) 596-5739
Vice-Chairman-1.....Har Dayal
har.dayal@baesystems.com (973) 633-4618
Vice-Chairman-2.....Bhanu Chivakula
b.chivakula@computer.org (732) 718-3818
TreasurerDr. Edward (Ted) Byrne
flatland@compuserve.com (973) 822-3219
SecretaryDr. Sanghoon Shin
s.shin@ieee.org (973) 492-1207 Ext. 22

Members-at-Large:

Dr. Nirwan Ansari (nirwan.ansari@njit.edu)
Naz Simonelli (naz@ieee.org)
Dr. Richard Snyder (r.snyder@ieee.org)

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 Dr. Sanghoon Shin at (973) 492-1207 Ext. 22, s.shin@ieee.org.

NJ Section PACE:

The Business Side of the Engineers' Career

A Discussion on Contract Engineering & What You Can Do

On Wednesday, May 12, 2004 the North Jersey Section PACE Committee will meet to discuss contract engineering and the job market. The subject will focus on an article "Contract Engineering Offers Alternate Employment Path" published *Electronic Design*, May 1997.

About the Talk

Contrary to conventional wisdom and engineer shortage propaganda, members of the engineering community are facing extreme fluctuations in the demand for their skills and services. Unfortunately, this means that a lifetime career in engineering will be a thing of the past unless, decisive and collective action is taken by members of the engineering community to correct the situation.

To begin we will briefly look at a history of engineering manpower demand fluctuations over a 30 year period to familiarize you with the employment situation as shown by the Deutsch, Shea and Evans - High Tech Recruiting Index.

Our primary focus will be on contract engineering as an alternate employment path with a detailed program to familiarize you with contract engineering. You will learn more from this presentation than many contract engineers know with years of experience.

We will start with an introduction to contract engineering covering definitions, pay structure and the client, contract house, engineer relationship. You will learn who and what contract engineers are, where they work, when, why, how they get assignments, and whether this is for you. We will cover, sources of contract firms and other related information through to getting an assignment and the contract.

About the Speaker

Richard F. Tax is a Senior Life member of IEEE and has served as a contract engineer for more than 35 years. He is currently vice-president of the American Engineering Association Inc., a professional organization dedicated to the enhancement of the engineering profession and US engineering capabilities.

He has provided design, and development support for ABEX Research Center, Allied Signal, Bendix, Conrac Corp, Dalto Electronics, DHS Systems, Energetics Science, GE Transportation Division, Holobeam Inc., IREX Medical Systems, ITT Avionics, Lockheed Electronics, Lockheed Martin, National Medical Care, Singer Kearfott, Technicon, and United Defense. He has designed

systems for NASA, FAA, US Army, Navy and the Air Force. Richard is a graduate of Fairleigh Dickinson University with a BSEE degree.

Mr. Tax received the North Jersey Section Award for Leadership in 1979, the Region I United States Activities Board (USAB) Award for Leadership in 1981, the IEEE Centennial Medal in 1984, the USAB Citation of Honor in 1984, the USAB Professional Achievement Award in 1988, and the Region I Award for Outstanding Contributions to Engineering Professionalism in 1989. He has been active in the Section since 1974. Richard has served the section as Member at Large, Vice Chairman, and member of the Education Committee. He was Chairman of the North Jersey Section from 1985 through 1986. In 1987 - 1988 he chaired the 20,000 member Metropolitan Sections Activities Council (METSAC).

He continuously stresses the importance of membership participation at the Section level.

All Welcome!

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

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

Time: 6:30 to 9:00 PM, Wednesday, May 12, 2004. Free refreshments will be served.

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

Information: Paul Ward, (973) 790-1625 (PWard1130@aol.com), Richard F. Tax, (201) 664-6954 (rtax@AEA.org).

June Meetings:

NJ GOLD, PACE, Membership Development & SAC:

The ABCs of Financial Statements for Non-Accountants

NJ Consultants' Network:

Kick Start Your Marketing Effort with Powerful Branding

For meeting details see <http://web.njit.edu/~ieeenj/NEWSLETTER.html>

IEEE North Jersey Section Activities

May 2004

May 2 - "NJ Section Awards Reception" - 3:00 to 6:00 PM at the Birchwood Manor, 111 North Jefferson Rd, Whippany, NJ. Anne Giedlinski (973) 377-3175.

May 5 - "NJ Section Executive Committee Meeting" - 7:00 PM, ITT, 100 Kingsland Rd, Clifton, NJ. Dr. Sanghoon Shin at (973) 492-1207 Ext. 22 or s.shin@ieee.org.

May 12 - "Carbon Nanotubes" - EDS/C&S and LEOS Chapters, 7:00PM (buffet at 6:15 PM), NJIT, 202 ECE Center, Newark, NJ. Dr. H. Grebel (973) 596-3538 (grebel@njit.edu).

May 12 - "The Business Side of the Engineers' Career - A Discussion on Contract Engineering & What You Can Do" - NJ PACE, 6:30 - 9:00 PM, Clifton Memorial Library, 292 Piaget Ave, Clifton, NJ. Paul Ward (973) 790-1625 (PWard1130@aol.com) or Richard F. Tax (201) 664-6954 (rtax@bellatlantic.net).

May 12 - "Spring 2004 Packaging Symposium" - 1:00-7:00PM, Lucent Technologies, Bell Laboratories, 600 Mountain Ave, Murray Hill, NJ. See <http://www.imaps.org/chapters/garden.htm> for details. Register before May 7th. Members - \$20, non-members \$30, unemployed - free. Contact Sean Adams at sean.adams@boc.com or (908) 771-1547 for more information.

May 19 - "EMC/EMI & PCB Design Shielding Seminar" - MTT/S/AP-S, 2:00 PM, BAE Systems (Formerly GEC-Marconi), 164 Totowa Road, Wayne, NJ. Dr. Edip Niver (973) 596-3542 (NJIT) or Har Dayal (973) 633-4618.

May 20 - "Power Management Control Systems" - NJ IAS/PES Chapters, 7:00PM, General Electric Atlantic Region Office, 1st Floor, Maple Plaza 1, 4 Campus Dr, Parsippany, NJ. Ken Oexle (973) 386-1156.

May 20 - "Collections: How to Get Paid" - NJ Consultants' Network, 7:30 PM, Aeroflex/KDI-Integrated Products, 60 S. Jefferson Rd, Whippany, NJ. Robert Walker (973) 728-0344 or www.TechnologyOnTap.org.

May 24 - "Web Services Architecture & Applications" - NJ Computer Chapter, 7:00 PM (pre-meeting buffet at 6:00 PM), Public Meeting Room, Morris County Library, 30 E. Hanover Ave, Whippany, NJ. Seth Jakel (973) 731-1902 (sgjakel@comcast.net) or Vivek Shaiva (908) 221-6125 (vshaiva@computer.org).

Upcoming Meetings

June 2 - "NJ Section Executive Committee Meeting" - 7:00 PM, ITT, 100 Kingsland Rd, Clifton, NJ. Dr. Sanghoon Shin at (973) 492-1207 Ext. 22 or s.shin@ieee.org.

June 9 - "The ABCs of Financial Statements for Non-Accountants" - NJ GOLD, PACE, Membership Development & SAC, 6:00-9:00 PM, Clifton Memorial Library, 292 Piaget Ave, Clifton, NJ. Richard F. Tax (201) 664-6954 (rtax@bellatlantic.net).

June 24 - "Kick Start Your Marketing Effort with Powerful Branding" - NJ Consultants' Network, 7:30 PM, Aeroflex/KDI-Integrated Products, 60 S. Jefferson Rd, Whippany, NJ. Robert Walker (973) 728-0344 or www.TechnologyOnTap.org.

July 14 - "PACE General Meeting" - NJ PACE, 6:30 - 9:00 PM, Clifton Memorial Library, 292 Piaget Ave, Clifton, NJ. Paul Ward (973) 790-1625 (PWard1130@aol.com) or Richard F. Tax (201) 664-6954 (rtax@bellatlantic.net).

Oct. 19&20 - "IEEE Lightwave Technologies in Instrumentation & Measurement Conference" - IEEE METSAC, IBM Palisades Executive Conference Center in Palisades, NY. <http://www.ewh.ieee.org/r1/metsac/LTWV.htm>.

Oct. 22 - "National Electric Code" - NJ IAS/PES Chapters, time and location TBD.

Members and Non-Members Welcome

PLEASE POST

Reminder: The June Newsletter will be electronic only. If you have a valid email address on record, you will receive the Newsletter via email. To update your email address, go to

<http://www.ieee.org/update>

As always, that latest meeting updates can be found on the Newsletter webpage

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

NJ Computer Chapter:
**Web Services
Architecture &
Applications**

On Monday, May 24th, 2004, the IEEE North Jersey Section Computer Chapter will host a presentation titled "Web Services Architecture & Applications" by Dr. Jen-Yao Chung.

About the Talk

Web services based application is the focal point for the next generation e-business, business process integration including B2B business automation, e.g. procurement, sourcing, logistics, finance and new business process (e.g. joint product design, automatic inventory replenishment). Web service applications are built upon the well known XML document exchange and open standards. We will discuss the architecture and industrial applications. We will cover the following topics: Introduction to E-business technology and business framework, electronic business application, solution and implementation, and Web services architecture, business process integration and related XML standards.

About the Speaker

Dr. Jen-Yao Chung received his BS degree in computer science and information engineering from the National Taiwan University along with MS and PhD degrees in computer science from the University of Illinois at Urbana-Champaign. Since June 1989, he has been with the IBM T. J. Watson Research Center as a research staff member. He currently is the senior manager of the electronic commerce and supply chain department, and program director for the IBM Institute for Advanced Commerce Technology office.

He has been involved in research, development, and customer engagements in electronic commerce, electronic marketplaces, and web application systems. Dr. Chung's current research is in e-marketplaces, XML and EDI, integrating existing business with the World Wide Web, and business process integration and management. Dr. Chung has participated in several industrial standards and workgroup including: open buying on internet (OBI, openbuy.org), XML/EDI (xmledi-group.org), CommerceNet eCo framework (eco.commerce.net), RosettaNet.org and ebXML.org and TPC-D. Dr. Chung has extensive experience in e-business innovations and engaged in several customer projects using web services technology to implement business integrations. Dr. Chung is the co-chair for IEEE task force on e-Commerce (TFEC).

He served as the program co-chair for IEEE Conference on e-Commerce (CEC'03). He served as the program co-chairs for IEEE Workshop on e-Commerce and Web-based Information Systems, WECWIS'02, steering committee chairs for WECWIS'01 and WECWIS'00, and general co-chair for WECWIS'99. He has authored or coauthored over 80 technical papers in published journals or conference proceedings. He was awarded an IEEE Outstanding Paper award in 1995, two IBM Outstanding Technical Achievement awards, in 1994 and 2000, an IBM Outstanding Contribution award in 1997, and three IBM Research Division awards, in 1990, 1996, and 2001. He received SCI2002 best paper award and ICEC2002 BEST paper nomination. He is a senior member of the IEEE and a member of the ACM.

All Welcome!

You do not have to be a member of the IEEE to attend. Bring your friends and network during the free pre-meeting buffet starting at 6:00 PM

Time: 7:00 PM, Monday, May 24, 2004. Pre-meeting buffet starting at 6:00 PM.

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

Information: Seth Jakel (973) 731-1902, (sgjakel@comcast.net) or Vivek Shaiva (908) 229-6125 (vshaiva@computer.org).

NJ PES/IAS Chapters:

**Power Management
Control Systems**

The Power Engineering and Industrial Applications Chapters will present a program on Power Management Control Systems for industrial and commercial markets on Thursday evening May 20th. The speaker will be Randy Bouwense.

About the Talk

Lower energy costs, improved equipment performance, harmonic reduction, increased operating efficiencies, improved working environment and less equipment down time are some of the advantages associated with power management control systems.

Randy will discuss the hardware, software, monitoring devices and output intelligence generated by these Power Management Control Systems.

About the Speaker

Randy Bouwense is currently employed by General Electric Industrial Systems as Power Management Systems Engineer. He has over 14 years of experience with various assignments in Automation and Systems Integration.

Advance registration is required three days prior to the meeting. To RSVP, call Ken Oexle at (973) 386-1156.

Time: 7:00 PM, Thursday, May 20, 2004. A pre-meeting buffet will be available at 6:30 PM.

Place: General Electric Atlantic Region Office, 1st Floor, Maple Plaza 1, 4 Campus Dr, Parsippany, NJ. Directions: Route 287 to Route 10 West to Dryden Dr Left on Campus Dr to building # 4.

Information/Map: Ken Oexle (973) 386-1156.

NJ Consultants' Network:

Collections: How to Get Paid

On Thursday, May 20, 2004, the IEEE Consultants' Network of Northern NJ (C>NNJ) will host a talk on "Collections: How to Get Paid" The speaker will be Brian R. Quentzel, Esq.

About the Talk

Mr. Brian R. Quentzel, Esq., will tell us what we can do to ensure we get paid for the work done for our clients. He will also describe the collection services that he offers as an attorney.

This is a repeat visit to the C>NNJ for Mr. Quentzel.

A question and answer period will follow the talk.

About the Speaker

Mr. Quentzel is a local attorney specializing in helping people recover money owed to them. In business for over ten years, he offers his services on a contingency basis, so that no fee is due unless and until he collects the money owed from his client's debtor. When he is successful, Mr. Quentzel charges a fee of one-third the amount recovered.

Mr. Quentzel can be reached at (201) 816-1901. His office is located at 46 West Clinton Ave, Tenafly, NJ 07670.

All Welcome!

Everyone welcome. No registration needed. Free admission.

About the Consultants' Network

Founded in 1992, the IEEE Consultants Network of Northern NJ encourages and promotes the use of independent technical consultants by business and industry.

Time: 7:30 PM, Thursday, May 20, 2004.

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

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