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

NJ PES/IAS:

New Jersey Performing Art Center Tour

The IAS/PES Chapters will sponsor a tour of the New Jersey Performing Art Center on November 14, 1998.

Opened in October 1997, the NJPAC attracted over a half a million theatergoers in its inaugural season. It has been described as "a gem" and "a star", with the likes of the Lincoln center or the Kennedy Center.

Admission to the tour is by advanced registration only. Send a stamped self-addressed legal envelope to

Ken Oexle

11 Deerfield Rd

Whippany, NJ 07981

for passes, directions, parking, point of assembly and other information. We are limited in the number of people they can accommodate.

Time: 10:00 AM, Saturday, November 14, 1998.

Place: NJ Performing Art Center, Newark, NJ.

Information: Ken Oexle (973) 386-

Be All That You Can Be

To become a Senior member, you need ten years of experience. A Bachelors Degree counts for three years and a Masters and Doctorate each count for one year. You don't have to be an IEEE member for ten years.

To get information and an application, send an email request to senior-memberforms@ieee.org and an electronic version will be mailed to you. If you wish to reply also by email, you can do so by sending your completed application to seniormember@ieee.org (Do not use reply to return the application automatically to IEEE, it must be sent to seniormember@ieee.org). For information, contact Don Weinstein, Kulite Semiconductor, One Willow Tree Road, Leonia, NJ 07605-2239, (201) 461-0900 or Amy Galarowicz, a.galarowicz@ ieee.org.

Student Leadership Workshop This Fall

This announcement is to inform all interested students and branch counselors of the 1998 student leadership workshop. It is tentatively scheduled for mid-to-late September. It is open to all undergraduate student IEEE members or those just about to become members. The date/time/location will be solidified as the fall semester nears.

This workshop is targeted especially for existing officers, NEWLY elected officers, or students wishing to become IEEE student branch officers. It aims to help students become familiar with their official duties, how to run a branch, how the entire IEEE organization relates to their local branch, and other skills necessary for such elected positions.

The best part of this workshop is that its free! No registration fees are being charged. Only a basic attendance form needs to be filled out by student branches so as to get a better count of the number of participants. For more information contact: Amit Patel at 973-284-2708 or email at a.j.patel@ieee.org. Also check the official North Jersey Student Activities Homepage at http://menger.eecs. stevens-tech.edu/~apatel9/ieee.html.

The Newsletter is Going Electronic!

For the 2nd year in a row, the October issue of The IEEE Newsletter will be all electronic and will not be mailed. All members can find the latest meeting and activity announcements by clicking "Newsletters" on the IEEE North Jersey Section Home Page at:

http://megahertz.njit.edu/~ieeenj/

NJ EDS, C&S, MTT/AP Chapters:

Microwave Amplifiers for Space

Communications

The IEEE NJ Section Electron Devices, and Circuits and Systems, and MTT/S/AP-S Chapters will host a talk October 21, 1998 on "Microwave Amplifiers for Space Communications." The speaker will be James A Dayton.

About the Talk

The differences in requirements for amplifiers used in deep space, geostationary satellites and low earth orbiting satellites will be discussed as well as how these issues, along with system architecture, influence the choices of implementing technologies. Statistics regarding amplifier reliability will be presented as well as anecdotal evidence of extreme long life. Devices that will be discussed include traveling wave tube amplifiers, solid state power amplifiers, monolithic microwave integrated circuit active phased arrays and electronically steerable passive array antennas.

About the Speaker

James Dayton is currently Director of Technology for Hughes Electron Dynamics Division in Los Angeles.

All Welcome

You do not have to be an IEEE member to attend.

Time: 7:15 PM, Wednesday, October 21, 1998. Free buffet will be starting at 6:15 PM.

Place: NJIT, Room 202, ECE Building, Newark, NJ.

Information: Dr. Richard Snyder (973) 492-1207 (RS Microwave) or Dr. Edip Niver (973) 596-3542 (NJIT).

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Business Manager	Keith	Saracinello

Deadline for receipt of material is the 1st of the month preceding the month of publication. All communications concerning editorial and business matters, including advertising, should be sent to the Business Manager via e-mail at k.saracinello @ieee.org or to The IEEE Newsletter, c/o Keith Saracinello, 96 Everett Rd, Parsippany, NJ 07054-3164, (973) 515-8829.

IEEE NJ SECTION HOME PAGE

http://megahertz.njit.edu/~ieeenj **IEEE NJ SECTION NEWSLETTER HOME PAGE** http://megahertz.njit.edu/~ieeeni/ **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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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 call Secretary Keith Saracinello (973) 515-8829. Vehicular Technology Society:

Improving the Capacity of Wireless Networks **Through Integrated Channel Base Station** and Power Assignment

The North Jersey Chapter of the IEEE Vehicular Technology Society will host a talk by Dr. Symeon Papavassiliou on September 22, 1998. The topic will be "Improving the Capacity of Wireless Networks Through Integrated Channel Base Station and Power Assignment."

About the Talk

The talk will describe a joint resource allocation algorithm that makes the channel base station and power assignment in a wireless network. It considers an arbitrary number of base stations and mobiles attempting to minimize the number of channels needed. The speaker will examine the performance in terms of traffic capacity with some bounds on the performance of the maximum packing, clique packing reuse partitioning techniques. Several versions of the two way channel assignment problem are studied and evaluated.

About the Speaker

Dr. Papavassiliou is a senior technical staff member at AT&T Network and Architecture Development, Holmdel, NJ. He is also an industry professor in the EE department of Polytechnic University, Brooklyn, NY.

Who Should Attend!

Practicing industry and research engineers in the wireless and communications networks fields. undergraduate and graduate EE studying students wireless and communication networks theory.

All Welcome!

You need not be an IEEE member to attend. There is no charge for admission and registration is not necessary. Light refreshments will be provided.

Time: 7:00 PM, Tuesday, September 22, 1998.

Place: Dialogic Corporation's headquarters, 1st floor, Cambridge Room, 1515 Route 10, Parsippany, NJ. Visitors should park in front of the building (Rte 10 side), enter through front door. Dialogic is on the south side of Route 10, between Route 202 (Littleton Road) and Route 287.

Information: Mel Lewis (201) 337-4767 (m.lewis@ieee.org) or Art Greenberg (973) 492-1207 (a.h.greenberg@ ieee .org).

NJ PES/IAS:

Developments in Standby Battery Technology-

A Vision for the Future

On September 17, 1998 the IEEE North Jersey Power Engineering Society and Industrial Applications Society Chapters will host a presentation by the technical experts of Anndes Power systems, Inc. on the subject of evolving battery technologies.

About the Talk

For decades, users of standby batteries have faced the same choices: lead-acid. and somewhat recently, nickel cadmium. There have been no radical changes in the standby battery market. Even the VRLA technology is just an evolution of the standard lead-acid batteries.

Yet the same users have seen laptop computer batteries change rapidly from nickel-cadmium to nickel-metal hydride to lithium based technologies in just a few Articles on electric vehicle research talk about zinc-bromide and sodium-sulfur batteries. Will these technologies ever find their way into the standby market? What sort of impact will they have? When will they be available?

This presentation provides some answers to these questions by looking at the research work being carried out by SAFT in both the portable and standby battery market.

All Welcome!

You need not be an IEEE member to attend and there is no charge for admission. Light refreshments will be served.

Time: 7:00 PM, Thursday, September 17, 1998.

Place: GPU Nuclear Offices, 1 Upper Pond Rd, Parsippany, NJ. Directions from Rt. 180: take exit 42 (Cherry Hill Rd) to Interpace Pkwy; turn into 7th driveway (Upper Pond Rd).

Information: Ken Oexle (973) 386-1156 or Vittal Rebbapragada (609) 720-

NJ Section GOLD/PACE:

Plant Tour!

While details are to be announced fully in October's newsletter, we are planning something you may want to keep your eyes peeled for. A weekday, late afternoon tour of the Anheuser-Busch plant in Newark will occur in mid-October. This will be a behind-the-scenes, controls-oriented look at how the plant is kept up and running 7-24. We're very excited for this unique opportunity to zero-in and check out their state-of-the-art batch process instrumentation, controls and information networks.

As a convenience to our host, as well as our members, IEEE will provide chartered bus transportation to the plant. The bus will originate in the Willowbrook area, stopping to pick up members along the Rt. 3 corridor. A simple boxed lunch (dinner) will be served en route, with expected arrival at the plant by 5 PM. We hope to have everyone delivered back to their cars no later than 8 PM.

The number of attendees is strictly limited to not more than 35 people. Registration will open with the publication of the October electronic newsletter, and will be handled on a first come, first served basis. Email registrations will be preferred. We look forward to hearing from you next month!

North Jersey Section Activities September 1998

- **Sept. 2**—"NJ Section Executive Committee Meeting" 7:00 PM, ITT, 100 Kingsland Road, Clifton, NJ. Keith Saracinello (973) 515-8829 or k.saracinello@ieee.org.
- **Sept. 8**–"1998 MTT/AP Symposium and Mini-Show" MTT-S/AP-S Chapter, 12:00-7:15 PM, Hanover Marriott, Whippany, NJ, Dr. Chandra Gupta (973) 633-4469 (GEC-Marconi).
- **Sept. 17**-"Developments in Standby Battery Technology-A Vision for the Future" NJ IAS/PES Chapters, 7:00 PM, GPU Nuclear Offices, 1 Upper Pond Rd, Parsippany, NJ. Ken Oexle (973) 386-1156 or Vittal Rebbapragada (609) 720-3209.
- **Sept. 22-Dec. 15**—"Visual Basic 5.0" North Jersey Section, Tuesday Evenings, 6:30-9:00PM, GEC-Marconi, Plant 11, 164 Totowa Rd, Totowa, NJ. Dr. Fred Chichester (973) 744-3065 (leave message) or Art Greenberg (973) 492-1207 (for course content questions only).
- **Sept. 22**—"Improving the Capacity of Wireless Networks Through Integrated Channel Base Station and Power Assignment" NJ Chapter VTS, 7:00 PM, Dialogic Corporation headquarters, Cambridge Room, 1515 Route 10, Parsippany, NJ. Mel Lewis (201) 337-4767 (m.lewis@ieee.org) or Art Greenberg (973) 492-1207 (a.h.greenberg@ieee.org).

Upcoming Meetings

- **Oct. 7**-"NJ Section Executive Committee Meeting" 7:00 PM, ITT, 100 Kingsland Road, Clifton, NJ. Keith Saracinello (973) 515-8829 or k.saracinello@ieee.org.
- **Oct. 14**—"Network Management-Motivations, Functional Areas, Architectures, & Implementations" NJ Coast Section, IEEE Headquarters, Ada A&B Confence Rooms, Piscataway, NJ. Bala Prasanna (732) 615-4486 (BPrasanna@att.com) or George McBride (732) 643-0612 (gmcbride@monmouth.com).
- **Oct. 21**-"Microwave Amplifiers for Space Communications" EDS/C&S and MTT/S/AP-S Chapter, 7:15 PM, NJIT, Room 202, ECE Building, Newark, NJ. Dr. Richard Snyder (973) 492-1207 (RS Microwave) or Dr. Edip Niver (973) 596-3542 (NJIT).
- **Nov. 14**—"NJ Performing Arts Center Tour" NJ IAS/PES Chapters. Advanced registration required. Ken Oexle (973) 386-1156.

Members and Non-Members Welcome

PLEASE POST

14TH ANNUAL SYMPOSIUM AND MINI-SHOW

Lectures and Booth Exhibits

FOCUS: MICROWAVES IN WIRELESS AND SATELLITE COMMUNICATION IN THE 21ST CENTURY

Tuesday, September 8, 1998. At Hanover Marriott, Whippany, NJ.

SCHEDULE OF EVENTS

12:00 Noon to 7:15 PM Mini-Show

- 1:30-2:10 'Wideband CDMA Wireless Systems', A. Siegel and G. Kannell, Lucent Technologies, Whippany, NJ.
- 2:10-2:50 '2.4 GHz Wireless LAN Chipset', S. Andrezyk, Harris Corp., Melbourne, FL.
- 2:50-3:30 'Synchronization of Time for World Telecommunication', W. Smith, Datum-Efratom, Irvine, CA..
- 3:30-4:30 Break
- 4:30-5:10 'Millimeter Wave MMIC's for Wireless and Satellite Communication Systems', Dr. M. Fukuta, Fujitsu Quantum Devices Ltd, Yamanashi, Japan.
- 5:10-5:50 'Ultra Linear Low Cost Amplifiers for Wireless Applications.', J. O'Campo and D. Jansen, Stanford Microdevices, Santa Clara, CA.
- 5:50-6:30 'Handset Antenna designs: Yesterday, Today and Tomorrow', Dr. W. L. Wu, Phillips Consumer Communications, Piscataway, NJ.

7:15 PM to 8:15 PM DINNER

There is no charge to attend the show and the lectures but reservations are required for both the symposium and optional dinner. Dinner including salad, entree, dessert, coffee and tips, for IEEE Members \$25, and Non-Members \$30. Send your check, made out to "IEEE North Jersey Section", to Chandra Gupta, 15 Lake Trail East, Wayne, NJ 07470.

For exhibitor inquiries, information, reservations, direction or questions call:

Dr. C. Gupta, GEC-Marconi (973) 633 4469, Prof. C. Nehra, SIT (201) 488 2072, Prof. E. Niver, NJIT (973) 596 3542, Willie Schmidt (973) 492 0371, G. Silberman, Phillips Consumer Communications (732) 743 7890.

IEEE North Jersey Section Seminar

VISUAL BASIC 5.0

Tuesday Evenings, September 22 – December 15, 1998 GEC Marconi Plant 11, 164 Totowa Road, Totowa, NJ

The IEEE is offering an evening course entitled "Visual BASIC 5.0." This comprehensive course is intended for programmers migrating from procedural languages to "Visual BASIC." Prerequisites for the course are a familiarity with Windows 95, knowledge of a procedural language, such as BASIC or C, and programming concepts, access to Microsoft Visual BASIC as well as Microsoft Windows 95. Upon completion, students will understand event driven programming; standard control objects and their associated properties, methods and events; have the ability to design application solutions. The course will run for 12 weeks. Each session will run for 2 ½ hours with a short break approximately in the middle. A textbook with CD ROM and all text materials required will be provided.

TOPICS

- Introduction to Visual BASIC; Naming conventions; Creating a Graphical User Interface (GUI); Properties, Events and Methods for forms, Text Boxes, Command buttons and labels; Event procedures; Variable declarations; Environment options; Saving programs.
- Scope: Code modules: variables end constants; Built-in functions; Expressions and statements; Finite and dynamic arrays; Static variables: Procedures and functions; passing data by reference or value; Program flow constructs.
- Debug tools; Properties, events and methods for lines, shapes, check boxes, option buttons, frames, picture boxes and 3. images; Toolbar; Status bar; Z Order; Control arrays.
- Properties; events and methods for list boxes and combo boxes.
- Properties, events and methods for horizontal/vertical scroll bars and timers.
- Multiple form projects; Error trapping and handling.
- Data manager and the data control; Data-aware controls; Grid control.
- Multiple Document Interface (MDI) Forms; Menu design.
- Keyboard events; Dynamic Link Libraries (DLL). 9.
- 10. Clipboard; Shell function; Dynamic Data Exchange (DDE).
- 11. Object Linking and Embedding (OLE), OLE automation.

Class size will be limited to a maximum of 25 with a minimum of 15. Early application is recommended. Telephone reservations will NOT be accepted. Applications postmarked after September 2nd will require an additional late fee of \$25. No application will be accepted after September 7th.

WHERE: GEC-Marconi, Plant 11, 164 Totowa Rd, Totowa NJ.

WHEN: Tuesdays, September 22 through December 15, 1998, 6:30-9:00 PM (no class September 29th).

COST: IEEE members \$245; Non-members \$360. Text book included.

CONTACT: Dr. Fred Chichester (973) 744-3065 (leave message) or Art Greenberg (973) 492-1207 (for course content

questions only). **REGISTRATION: VISUAL BASIC 5.0** Dr. Fred Chichester, 56 Gordonhurst Ave, Upper Montclair, NJ 07043 To: Name: □ Nonmember ☐ IEEE member Member #: Member of ______ technical society Employer:__ Home Address: Business (day) telephone #:_____ _____ Home telephone #:_____ Please enclose required fee payable to: North Jersey Section IEEE Registration status will be mailed after Sept. 9, 1998. Phone inquiries concerning registration will NOT be honored. In general, the effective date of the application corresponds to the date when BOTH a fully completed application & payment are received. ☐ Tuition receipt will be mailed only if this box is checked

Signature: