The IEEE Newsletter
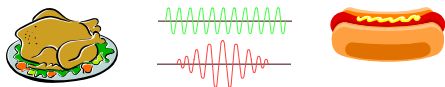
PUBLICATION OF THE NORTH JERSEY SECTION OF THE INSITIUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS

NJ GOLD, MTT/AP and PACE

Microwaves Aren't Just for Leftovers Anymore

The topic at the August 19, 1997 meeting sponsored by the IEEE NJ Section GOLD, MTT/S/AP-S Chapter and PACE will be "Microwaves Aren't Just for Leftovers Anymore". The speaker will be Dr. Chandra Gupta.

About the Talk

In recent years, microwaves have found wide-spread application in modern system designs. Have you wondered what this growing field is all about?

This presentation will discuss the application of microwaves in wireless and wired systems. Dr. Gupta will explain the merits and characteristics of microwaves as compared to typical electrical signals most other EE's work with.

Propagation of microwaves in guided media, as well as in free space will be discussed. Several applications will be presented, including communication systems, intelligent highway and automobile controls, medical applications, household uses and industrial processes/sensors.

The purpose of this talk is to introduce microwave technology to others that may interact with this discipline, but are not immersed in it, those considering entering the field, or just anybody at all curious about emerging technologies. Invite your colleagues!

About the Speaker

Dr. Chandra Gupta is an Engineering Project Manager at GEC-Marconi Hazeltine CNI Division, Wayne, NJ. He has over twenty years of experience in the design, development, production and engineering management of components, subsystems and systems covering RF, microwave and millimeter wave frequency ranges.

Dr. Gupta received a PhD (EE) degree from University of Wales, UK in 1978. Dr. Gupta has several publications in journals and conference proceedings. Dr. Gupta is a Senior Member of IEEE, Member of Who's Who Worldwide, Member of Old Crows Association, Chair of the IEEE North Jersey Section MTT & AP Chapter and Treasurer of the local IEEE EXCOM.

All Welcome!

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

Time: 6:30 PM, Tuesday, August 19, 1997. Free refreshments will be served at 6:00 PM.
Place: Clifton Public Library, 292 Piaget Ave, Clifton, NJ, (201) 772-5500 for directions or see Newsletter web page.
Information: Amy Galarowicz (201) 818-3740.

The Newsletter is Going Electronic!

On an experimental basis, the October issue of The IEEE Newsletter will be all electronic and will not be mailed. Members who have provided email addresses will be sent an electronic version. All members can continue to find the latest meeting and activity announcements on the IEEE NJ Section Newsletter Home Page via the World Wide Web at:

http://www.ece.stevens-tech.edu/
~nar/inews

If you have not already provided your email address, it can be added to your member profile through any of the following:

WWW: http://www.ieee.org/mem_
serv/changeaddr.html
e-mail: address.change@ieee.org
*Phone: (*800) 678-IEEE
*Fax: (*908) 981-9667
Mail: IEEE 445 Hoes Lane
PO Box 1331
Piscataway, NJ 08855-1331

NJ Section PACE:

Utilizing the IEEE to Enhance Your Professional Career

On August 14, 1997, Joel B. Snyder, P.E., will present a talk on "Utilizing the IEEE to Enhance Your Professional Career" at the Clifton Memorial Library.

About the Talk

The IEEE has many activities and services that help engineers throughout the course of their careers. Mr. Snyder will discuss some of the numerous ways in which the IEEE helps engineers be better engineers and people. He will also explain how IEEE continuing education helps build the entire person and makes engineers more valuable to employers and more attuned to their families.

About the Speaker

Mr. Snyder has been a very active contributor to the IEEE over many years and has held numerous responsible positions, most recently as USAB Chairman. As such, he is widely recognized by the membership and has given well received presentations to the North Jersey Section in recent years. As noted in the current issue of The Institute, Mr. Snyder is currently a candidate for President-elect of the IEEE.

All Welcome

All are welcome to join us. Light refreshments will be served.

Time: 6:00 PM, Thursday, August 14, 1997.
Place: Clifton Public Library, 292 Piaget Ave, Clifton, NJ, (201) 772-5500 for directions or see Newsletter web page.
Information: Dr. Mike Liechenstein (201) 471-0721 or M.LIECHENSTEIN @IEEE.ORG), or Rodney Cole (201) 299-9022 ext. 2257.

AUGUST 1997

NEWSLETTER STAFF

Editor ....Theresa Saracinello
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 *ksara@ix.netcom.com* or to *The IEEE Newsletter, c/o Keith Saracinello, 96 Everett Rd, Parsippany, NJ 07054*, (201) 515-8829.

IEEE NJ SECTION HOME PAGE
    WWW at http://megahertz.njit.edu/~ieeenj
IEEE NJ SECTION NEWSLETTER HOME PAGE
    WWW at http://www.ece.stevens-tech.edu/
         ~nar/inews

REPORT ADDRESS CHANGES TO:
IEEE Service Center, 445 Hoes Lane, P.O. Box 1331, Piscataway, NJ 08855-1331, (908) 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.

SECTION OFFICERS

Chairman ....Arthur Greenberg
        a.h.greenberg@ieee.org   (201) 492-1207
Vice-Chariman-1................................Melvin Lewis
        m.lewis@ieee.org   (914) 968-2500 Ext. 2304
Vice-Chariman-2......................Dr. Fred Chichester
        (201) 744-7340
Treasurer..................................Dr. Chandra Gupta
Secretary ....Alan Stolpen
        (201) 822-1300, ext. 2416

Members-at-Large:
    Amy Galarowicz   (201) 818-3740
                              a.e.galarowicz@ieee.org
    Dr. Haim Grebel
    Dr. Nirwan Ansari

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 call Secretary Alan Stolpen (201) 822-1300, ext. 2416.

IEEE North Jersey Section Seminar
C/C++ WINDOWS PROGRAMMING

Thursday Evenings, September 11 – November 20, 1997
KDI Triangle Co.
60 S. Jefferson Road, Whippany, NJ

The IEEE is offering an evening course entitled "C/C++ Windows Programming". This course will cover the creation of Microsoft Windows programs without needing the large compilers or the object libraries for Windows. You will require only Windows 3.1 or 95 and any Windows-compatible compiler. All programs will be compatible with C but C++ will also be used to simplify the interface.

This is a Windows course, not a programming course. Knowledge of C or C++ is a prerequisite. The emphasis is on other aspects of Windows application: standard look-and-feel, the design of help and make files, graphics (creating icons and cursors), program interlinking (cut and paste, DDE and OLE), and program installation (DDL's, INI, REG). We will also develop software tools to tame the complicated Windows environment interface and simplify the repetitive aspects of the development job. There will be 10 weekly lectures which will be quite interactive. Homework will be assigned and corrected. The specific topics listed below will be covered.

TOPICS

1. Review of Microsoft Windows from a developer perspective: The desktop metaphor. Constituents of a window. The mouse. Characteristics of different kinds of window objects. Use of the file manager. Use of the application window.
2. Nature of an interactive Windows program: winMain, event handlers. Files that make up a Windows program package. Constraints on a Windows program. Microsoft variable naming conventions.
3. Kinds of boxes: The dialog box, menu, accelerator keys, buttons (radio, check boxes, bitmapped buttons). Designing your own control boxes.
4. Other aspects of a Windows program package: creating icons. Creating Help. Concept of hypertext. Creating new cursor shapes. Saving program state from one execution to the next.
5. Creating output in your program: The device context. Print output. Pixel output. Bitmap files. Choosing, sizing, and using fonts.
6. Communication between tasks or applications: Passing data, the clipboard. More general communications, Dynamic Data Exchange (DDE). Using parts of one Windows program in another. Object Linking and Embedding (OLE).
7. Creating software tools to help development: Getting help on the windows interface itself. Creating repetitive code automatically.
8. How to create an install package for your Windows program. Special Windows 95 topics. Introduction to use of object libraries.

Class size will be limited to a maximum of 25 with a minimum of 15. Early registration is recommended. Phone reservations will NOT be accepted. Reservations accepted after Sept. 4 will require a late fee of $25. No reservations will be accepted after Sept. 10.

WHERE: KDI Triangle Electronics Inc., 60 S. Jefferson Rd., Whippany, NJ.
WHEN: 10 Sessions, Thursday, Sept. 11 through Nov. 20, 1997, 6:30-9:00PM.
COST: With text book only: IEEE members $235; Non-IEEE members $335.
CONTACT: Dr. Fred Chichester (201) 744-3065 (leave message) or Art Greenberg (201) 492-1207.

REGISTRATION: C/C++ WINDOWS PROGRAMMING

To: Dr. Fred Chichester, 56 Gordonhurst Ave., Upper Montclair, NJ 07043

Name:_____ IEEE No.:_____

Affiliation:_____ Phone No.:_____

Address:_____

_____

Please enclose required fee payable to: **North Jersey Section IEEE**

Signature: _____

Mathematics Tutors Wanted

The East Orange School District is hiring mathematics tutors for the coming school year for its Scholars for Academic Guidance and Excellence (SAGE) program. The focus of the SAGE program has been to tutor small groups of high school students who failed the High School Proficiency Test (HSPT), which is required for graduation for public high schools in New Jersey. During the 1997-98 academic year the SAGE program is expected to be extended to the middle schools in the district.

Successful applicants will be paid on a per diem basis to tutor small groups of students throughout the school day for 30 days prior to the October test date and for 60 days prior to the April test date. Applications are sought especially from those who have prior mathematics teaching and/or tutoring experience. Since the orientation meeting for SAGE tutors for the 1997-98 academic year is on the morning of August 11th, a resume and letter of application should be sent as soon as possible to:

Dr. Robert Penna, Director
SAGE Program
East Orange School District
715 Park Avenue
East Orange, NJ 07017

For Further information a prospective tutor may telephone Dr. Fred Chichester at the IEEE North Jersey Section Education Committee information line (973) 744-3056.

PC Discounts!

Some computer dealers are offering special prices to North Jersey IEEE members. The Sussex County Computer Warehouse is one of the dealers. Typical of their systems is a 166MHz Pentium with 512k cache, 2.1GB hard drive, 3.5" floppy drive, 32MB EDO RAM, 16x CD ROM, 128 bit PCI 3D video card with 2MB RAM, 33.6K modem with voice, 15" digital monitor, 16 bit 3D sound card, 104 keyboard, and 2 – 32 watt speakers for $1342. Both higher and lower line systems are available. Contact them at:

Sussex County Computer Warehouse
56 Paterson Ave
Newton, NJ 07860
Phone: (973) 300-9790
Fax: (914) 856-8105

North Jersey Section Activities
August 1997

Aug. 6–"NJ Section Executive Committee Meeting" − 7:00 PM, Plant 11, GEC-Marconi, 164 Totowa, NJ. Alan Stolpen (201) 822-1300, ext. 2416.

Aug. 14–"Utilizing the IEEE to Enhance Your Professional Career" − NJ Section PACE, 6:15 PM, Clifton Memorial Library, 292 Piaget Ave., Clifton, NJ. Dr. Mike Liechenstein (201) 471-0721.

Aug. 19–"Microwaves Aren't Just for Leftovers Anymore" − NJ Section GOLD, MTT/S/AP-S Chapter and PACE, 6:30 PM, Clifton Memorial Library, 292 Piaget Ave., Clifton, NJ. Amy Galarowicz (201) 818-3740.

Upcoming Meetings

Sept. 3–"NJ Section Executive Committee Meeting" – 7:00 PM, Plant 11, GEC-Marconi, 164 Totowa, NJ. Alan Stolpen (201) 822-1300, ext. 2416.

Sept. 11-Nov. 20–"C/C++ Windows Programming" – North Jersey Section, Thursday Evenings, 10 sessions, 6:30-9:00PM, KDl Triangle Electronics Inc., 60 S. Jefferson Rd., Whippany, NJ. Dr. Fred Chichester (201) 744-3065 (leave message).

Sept. 11-Dec. 4–"Visual Basic 5.0" – North Jersey Section, Thursday Evenings, 12 sessions, 6:30-9:00PM, ITT Avionics, 100 Kingsland Road, Clifton, NJ. Dr. Fred Chichester (201) 744-3065 (leave message).

Sept. 24–"Voltage Tunable Ferro-electric Films for Application to Microwave Devices" – NJ ED/CS/AP/MTT Chapters, 7:00PM, NJIT, Room 202, ECE Center, Newark, NJ. Dr. Richard Synder (973) 492-1207.

Oct. 16–"Energy Deregulation and Restructuring in New Jersey" – NJ IAS/PES Chapters, 7:00 PM, GPU Energy, 300 Madison Ave., Morristown, NJ. Ken Oexle (201) 386-1156.

Nov. 20–"92nd Semi-Annual Seminar - INTRANETS"–NY Communications Society, 9:00 AM to 4:30 PM, United Engineering Center, 345 47th Street, New York, NY. Jim Barbera at j.p.barbera@ieee.org or by fax at (212) 465-8877.

Members and Non-Members Welcome
PLEASE POST

Become a Senior Member Now!

You may be qualified if you have ten years of active professional practice. A Bachelors Degree counts for three of those years and Masters and Doctors Degree each count for one more year. Get information on becoming a Senior Member by contacting Don Weinstein, Kulite Semiconductor, One Willow Tree Road, Leonia, NJ 07605-2239, (201) 461-0900 ext. 234 mornings or Amy Galarowicz, Glatt Air Techniques Inc., 20 Spear Road, Ramsey, NJ 07446-1288, (201) 818-3740, FAX (201) 825-0389, email: a.e.galarowicz @ieee.org.

HTML Instructors Wanted!

The North Jersey Section Education Committee seeks applications from potential instructors for an HTML course to be offered evenings in the spring of 1998. Since the advance preparations for the course require substantial lead time, interested candidates should submit promptly a course proposal accompanied by a resume emphasizing their experience with HTML and in teaching to:

Dr. Frederick Chichester, Chair
IEEE North Jersey Section Education Committee
56 Gordonhurst Avenue
Upper Montclair, NJ 07043

Further information can be obtained by calling the IEEE North Jersey Section Education Committee information line at (973) 744-3065.

IEEE North Jersey Section Seminar
on
VISUAL BASIC 5.0

Thursday Evenings, September 11 – December 4, 1997
ITT Avionics
100 Kingsland Road, Clifton, 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. A textbook with CD ROM and all text materials required will be provided.

TOPICS

1. 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.
2. 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.
3. Debug tools; Properties, events and methods for lines, shapes, check boxes, Option buttons, Frames, Picture boxes and images; Toolbar; Status bar; Z Order; Control arrays.
4. Properties; Events and methods for List boxes and combo boxes.
5. Properties, events and methods for Horizontal/Vertical Scroll Bars and Timers.
6. Multiple Form Projects; Error trapping and handling.
7. Data Manager and the Data Control; Data-aware controls; Grid control.
8. Multiple Document Interface (MDI) Forms; Menu Design.
9. Keyboard Events; Dynamic Link Libraries (DLL).
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 registration is recommended. Phone reservations will NOT be accepted. Reservations accepted after Sept. 4 will require an additional fee of $25. No reservations will be accepted after Sept. 10.

WHERE: ITT Avionics, 100 Kingsland Road, Clifton, NJ.
WHEN: 12 classes, Thursday, Sept. 11 through Dec. 4, 1997, 6:30-9:00 PM.
COST: IEEE members $220; Non-IEEE members $335. Text book included.
CONTACT: Dr. Fred Chichester (201) 744-3065 (leave message) or Art Greenberg (201) 492-1207.

REGISTRATION: VISUAL BASIC 5.0

To: Dr. Fred Chichester, 56 Gordonhurst Ave., Upper Montclair, NJ 07043

Name:_____ IEEE No.:_____

Affiliation:_____ Phone No.:_____

Address:_____

_____

Please enclose required fee payable to: **North Jersey Section IEEE**

Signature: _____