



The IEEE

Newsletter

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

NJ Section PACE:

Nothing Is Certain

Except Death and Taxes

At the September 11, 1997 meeting of the NJ Section's Professional Activities Committee for Engineers, the topic will be "Nothing Is Certain Except Death and Taxes." The speaker will be Edward Landau.

About the Talk

You only die once. Unfortunately, you'll be taxed every year until you die. And then taxes may still ravage whatever you leave behind. Maybe the real reason "you can't take it with you" is because the IRS would disallow it. Even so, you could probably live with taxes if they would just stay put for a while. But they don't. Maybe the maxim should read, "Nothing is certain except death and tax increases."

How to make tax savings a certainty will be discussed. Tax laws notwithstanding, there is no reason to be fatalistic. With some your-round, long-range planning and professional help, you can help make tax savings as predictable as Washington's rate hikes.

The discussions will focus around estate planning and will answer the following questions:

- How can I minimize estate taxes?
- Can I invest for a high yield and minimize risk?
- Is a living trust right for my family?
- Can I shelter my income safely?
- How will probate affect my estate plans?
- How will the tax laws affect my current situation?
- Is my estate in order?

About the Speaker

Mr. Landau is a Personal Financial Advisor with American Express and holds the designation of Certified Financial Planner. He is licensed by the National Association of Securities Dealers. Mr. Landau specializes in personal financial planning, including retirement and investment planning. Before becoming a Financial Advisor, Mr. Landau, spent over twenty years as an RF Design Engineer, Consultant and Engineering Manager.

All Welcome

You need not be a member of IEEE to attend.

Time: 6:30 PM, Thursday, September 11, 1997. Light refreshments will be served at 6:00 PM.

Place: Clifton Memorial Library, 292 Piaget Ave., Clifton, NJ, (973) 772-5500 or see Newsletter web page.

Information: Dr. Mike Liechenstein (973) 471-0721 (m.liechenstein@ieee.org) or Rodney Cole (973) 299-9022, ext. 2257.

The October Newsletter Will Be All Electronic!

On an experimental basis, the October issue of The IEEE Newsletter will not be mailed and will be all electronic. Members who have provided e-mail addresses will be sent an electronic version. All members can continue to find the latest meeting and activity announcements via the IEEE North Jersey Section Home Page at:

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

If you have not already provided your e-mail 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: (732) 981-9667

Mail: IEEE 445 Hoes Lane

PO Box 1331

Piscataway, NJ 08855-1331

Chairman's Column

As you have already read in this issue, next month's newsletter will be all electronic. The purpose is twofold. First is financial. It currently costs the section over \$30,000 per year to publish and mail our newsletter and the cost of paper, printing, and postage will only increase with time. This money could be better spent in providing meetings, courses, and other services for the membership. Second is timeliness. It takes a month to publish and mail the current newsletter and it is impossible to update it. The electronic newsletter can be updated daily. Those with computers at home or at work will be able to read the newsletter at its homepage –

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

and can hot link to it directly from our section homepage –

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

Those who have provided IEEE headquarters with their e-mail address will get their newsletters mailed to them via e-mail. If you don't have e-mail now, JUNO provides free e-mail and they are listed in this newsletter. If you don't have a computer, a low priced supplier is also listed in this issue. Others are available and advertise in newspapers and magazines. Those who don't want to buy a computer at this time can go to their local libraries and the reference librarian will connect you to the newsletter. In November we will return to our normal printed format and we will evaluate the results. By the end of 1998 we hope to be all-electronic. Please try to evaluate this experiment fairly and let the section officers know your opinions.

In October the education committee will offer its second all-day Saturday JAVA course. One day courses seem to be a desirable way to learn a subject and other courses can be offered. If you want a course offered, contact Fred Chichester at (973) 744-3065.

SEPTEMBER 1997

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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://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, (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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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 (973) 822-1300, ext. 2416.

Vehicular Technology Society

How to Design for

Testability

Sometime in September (see <http://megahertz.njit.edu/~ieeenj/> or contact info. below for date, time and location), the North Jersey Chapter of the IEEE Vehicular Technology Society will present a talk on "How to Design for Testability." The speaker will be Mel Lewis.

About the Talk

Design for testability (DFT) is an important consideration in all circuits and systems that will be production and field tested by someone other than the designer. Designing for testability reduces test program complexity, cuts test time, facilitates troubleshooting, and increases equipment availability. The talk will cover key points of DFT such as controllability, observability, partitioning, built-in-test (fault detection and isolation), test equipment compatibility and initialization. Many practical examples will illustrate these points.

About the Speaker

Mr. Lewis is a Senior Staff Engineer at Lockheed Martin Fairchild Systems (formerly Loral) in Yonkers, NY, with 34 years experience designing circuits and systems including sophisticated test equipment for defense applications.

He has 15 years experience applying DFT principals at Lockheed Martin. Mr. Lewis holds a BSEE from FDU (1961) and has done considerable graduate work at Columbia, NCE/NJIT, and more recently, Polytechnic University. He is Chairman of the North Jersey Chapter of the IEEE Vehicular Technology Society, and First Vice-chair of the North Jersey Section of the IEEE. Mr. Lewis is a member of the Astronomy Society of the Pacific, the NY Academy of Science, the American Association for the Advancement of Science, The Association of Old Crows (a defense electronics society), and the National Security Industrial Association. He has a patent in electro-optics, and has authored 5 technical papers on test equipment, expert systems and gravitational waves.

All Welcome!

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

Time: See <http://megahertz.njit.edu/~ieeenj/> or contact info. below.

Place: Stevens Institute of Technology, Room TBD, Hoboken, NJ.

Information: Art Greenberg (973) 492-1207 (a.h.greenberg@ieee.org) or Dr. Mike Liechenstein (973) 471-0721 (m.liechenstein@ieee.org).

Take This GOLDen Opportunity!

This month's meeting of G.O.L.D. (Graduates of the Last Decade) shall be a social event on Tuesday, September 16. Plan to be at Houlihan's in Secaucus for happy hour starting at 6:30 PM. If anyone needs directions, or has questions, contact North Jersey Section GOLD Chair Amy Galarowicz at a.galarowicz@ieee.org or by phone at work at (201) 818-3740. Looking forward to seeing everyone there!

Mark your calendars for the October 16th meeting, to be held jointly with the Power Engineering Chapter. We will a look at what deregulation of the power industry means locally. Expect an overview of the business of power generation and distribution that both new and established engineers can appreciate. If you work in industry, or even just depend on the delivery of good, clean power at your doorstep everyday, you'll find something of interest at this meeting. Invite your colleagues!

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.

Free Internet E-Mail Service

The North Jersey Section of the IEEE encourages you to get your own e-mail account, in part so we can send you meeting announcements and the newsletter electronically, and so you can make your IEEE related ideas known to us, if you're so inclined. But, until recently, it would cost you money to sign up with an internet service provider.

We'd like you to know that you can now get a free e-mail account so you can exchange messages with people all over the world. According to their literature, with JUNO (tm), you never have to pay monthly fees, no hourly fees, no sign-up fees. Depending on where you live, there may be a phone company charge for the connect time, if it's not a local call for you. Sponsors (commercials) pay for JUNO. But their messages don't interrupt what you're doing, they claim. If you have a PC running Windows, 4 MB RAM, 10 MB hard drive space available, a 3.5" floppy drive and a modem, JUNO gives you everything you need to send and receive e-mail. Call (800) 654-5866 to receive additional information and their free software.

This does not represent an IEEE North Jersey Section endorsement of the JUNO service, we're just letting you know it's out there. If you don't like their deal, you can always try one of the other internet service providers. Why not get connected now?

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 September 1997

Sept. 3—"NJ Section Executive Committee Meeting" – 7:00 PM, Plant 11, GEC-Marconi, 164 Totowa, NJ. Alan Stolpen (973) 822-1300, ext. 2416.

Sept. ?—"How to Design for Testability" – NJ Chapter VTS, see <http://megahertz.njit.edu/~ieeenj/> or contact info. below for date, time and room, Stevens Institute of Technology, Hoboken, NJ. Art Greenberg (973) 492-1207 or Dr. Mike Liechenstein (973) 471-0721.

Sept. 9—"Tutorials on Excel 7.0 (1st Session)" – NJ Section Systems, Man and Cybernetics Society, 7:00 PM, Clifton Memorial Library, 292 Piaget Ave, Clifton, NJ. Dr. Mike Liechenstein (973) 471-0721 or Mel Lewis (914) 964-3820.

Sept. 11—"Nothing Is Certain Except Death and Taxes" – NJ Section PACE, 6:30 PM (Refreshments 6:00 PM), Clifton Memorial Library, 292 Piaget Ave, Clifton, NJ. Dr. Mike Liechenstein (973) 471-0721 or Rodney Cole (973) 299-9022, ext. 2257.

Sept. 11-Nov. 20—"C/C++ Windows Programming" – North Jersey Section, Thursday Evenings, 10 sessions, 6:30-9:00 PM, KDI Triangle Electronics Inc., 60 S. Jefferson Road, Whippany, NJ. Dr. Fred Chichester (973) 744-3065 (leave message).

Sept. 11-Dec. 4—"Visual Basic 5.0" – North Jersey Section, Thursday Evenings, 12 sessions, 6:30-9:00 PM, ITT Avionics, 100 Kingsland Road, Clifton, NJ. Dr. Fred Chichester (973) 744-3065 (leave message).

Sept. 16— IEEE Graduates of the Last Decade (GOLD), 6:30 PM, Houlihan's in Secaucus, NJ. Amy Galarowicz (201) 818-3740.

Sept. 24—"Voltage Tunable Ferroelectric Films for Application to Microwave Devices" – NJ EDS/C&S/AP/MTT Chapters, 7:00 PM (Buffet 6:15 PM), NJIT, Room 202, ECE Center, Newark, NJ. Dr. Richard Synder (973) 492-1207.

Upcoming Meetings

Oct. 1—"NJ Section Executive Committee Meeting" – 7:00 PM, Plant 11, GEC-Marconi, 164 Totowa, NJ. Alan Stolpen (973) 822-1300, ext. 2416.

Oct. 16—"Energy Deregulation and Restructuring in New Jersey" – NJ IAS/PES Chapters and GOLD, 7:00 PM, GPU Energy, 300 Madison Ave., Morristown, NJ. Ken Oexle (973) 386-1156.

Oct. 18—"JAVA Workshop" – IEEE NJ Section, 9:00AM-4:00PM, Ramada Inn, Fairfield, NJ. Dr. Fred Chichester (973) 744-3065 (leave message).

Nov. 6—"Tutorials on Excel 7.0 (2nd Session)" – NJ Section Systems, Man and Cybernetics Society, 7:00 PM, Clifton Memorial Library, 292 Piaget Ave, Clifton, NJ. Dr. Mike Liechenstein (973) 471-0721 or Mel Lewis (914) 964-3820.

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

NJ EDS, C&S, MTT/AP Chap.:

Voltage-Tunable Ferroelectric Films for Applications to Microwave Devices

The IEEE NJ Section Electron Devices, Circuits and Systems, MTT/S/AP Society Chapters in conjunction with NJIT will host a talk September 24, 1997 on "Voltage-Tunable Ferroelectric Films for Applications to Microwave Devices." The speakers will be Drs. Frank Barnes and Huey-Daw Wu

About the Talk

In this seminar we will review some recent developments in laser-deposited voltage-tunable thin films of the BaSrTiO_3 for applications to microwave devices. These films are of potential use in building voltage-tunable delay lines for use in phased array antennas and for voltage-tunable capacitors to be used in filters and oscillators. A key parameter for describing these films is the ratio of the tunability, $\Delta\epsilon/\epsilon$, divided by the loss tangent, $\tan \delta$. Our best results to date at room temperature are about $\Delta\epsilon/\epsilon=85\%$ and $\tan \delta=0.003$. These films are also reasonably lattice-matched to YBCO and thus compatible with the use of superconductors near 77°K. This makes it potentially possible to build some very low loss microwave circuits.

About the Speakers

Frank S. Barnes received his BSEE at Princeton in 1954 and his PhD in Electrical Engineering in 1958 from Stanford University. He joined the University of Colorado in 1959, where he is currently a Professor of Electrical and Computer Engineering.

Dr. Barnes is a Fellow of the IEEE, and a member of both the American Association of the Advancement for Science and the International Engineering Consortium. His research interests include the applications of electron devices, microwaves, and low-frequency electrical and magnetic fields and ultrasound to biological systems. He has served as Distinguished Lecturer for the IEEE Electron Device Society from 1994 to 1997. Professor Barnes is a member of the Board of Directors of the Bioelectromagnetics Society, and has also served as VP of Publications for

IEEE and as President of the Electron Devices Society.

Huey-Daw Wu received his BSEE degree from the National Taiwan University in 1980, and his MS and PhD degrees in Electrical Engineering from the University of Colorado in 1987 and 1994, respectively.

He joined the Department of Electrical Engineering, University of Colorado at Boulder in 1994 as a Research Associate. During his graduate study, he has engaged in research on the nonlinear optical properties of multiple-quantum-well structures, monolithic millimeter-wave integrated circuit, microstrip antenna and mixer, and on microlens for laser diode to single-mode fiber coupling. His current research interests include ferroelectric thin films deposition and applications to microwave devices, and microelectromechanical systems for millimeter-wave circuits.

All Welcome

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

Time: 7:00 PM, Wednesday, September 24, 1997. Free buffet will be starting at 6:15 PM.

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

Information: Dr. Chandra Gupta (973) 633-4469 (GEC-Marconi), Dr. Richard Synder (973) 492-1207 (RS Microwave), Willie Schmidt (973) 492-0371 or Dr. Edip Niver (973) 596-3542 (NJIT).

No. Jersey SMC Society:

Tutorials on Excel 7.0

On September 9 and November 6, 1997, the IEEE North Jersey Systems, Man and Cybernetics Society Chapter will host the beginning of three or four (depending on interest) free tutorials and demonstrations by Mike Liechenstein and The Video Professor © on the development and usage of spreadsheets.

About the Talk

The lectures will progress in sophistication, using Excel 7.0 as a vehicle. Applications in business and personal usage will be discussed, as well as the utility of spreadsheets in data analysis, data description (including graphical presentation), and projections. Database capabilities, such as sorting and data filtering, will also be examined. The final lecture

will cover some of the built-in statistical tools for estimation and forecasting (e.g., stock market time series), their interpretation and underlying assumptions. While the presentations are progressively sophisticated, the initial presentation assumes no prior knowledge, apart from some familiarity with the Windows 3.X or 95 environments.

All Welcome!

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

Times:

1st Tutorial -- 7:00 PM, Tuesday, September 9, 1997.

2nd Tutorial -- 7:00 PM, Thursday, November 6, 1997.

3rd & 4th Tutorials - To be announced.

Place: Clifton Public Library, 292 Piaget Ave, Clifton, NJ, (973) 772-5500 for directions or see Newsletter web page.

Information: Dr. Mike Liechenstein (973) 471-0721 (m.liechenstein@ieee.org) or Mel Lewis (914) 964-3820 (m.lewis@ieee.org).

NJ PES/IAS and GOLD:

Energy Deregulation & Restructuring in NJ

On October 16, 1997, the Power Engineering and Industrial Applications Chapters and Graduates of the Last Decade will sponsor a joint meeting on "Energy Deregulation and Restructuring in New Jersey." The speaker will be Bob Chilton, Director - Division of Energy, NJ Board of Public Utilities.

About the Talk

Energy policies to promote open and competitive energy markets in New Jersey beginning in 1998 will be discussed. Industrial, commercial and residential customers will be afforded new opportunities and choices as energy markets become deregulated. The objectives and goals of these programs will also be discussed.

Time: 7:00 PM, Thursday, October 16, 1997.

Place: GPU Energy, 300 Madison Ave, Morristown, NJ.

Information: Ken Oexle (973) 386-1156.

IEEE New York Communications Society
92nd Semi-Annual Seminar - INTRANETS
Strategies, Network Infrastructure, Groupware, Platforms
and Applications

Time: 9:00 AM to about 4:30 PM, Thursday, November 20, 1997.

Place: United Engineering Center, 345 47th Street, New York, NY.

Information: Jim Barbera at j.p.barbera@ieee.org or by fax at
(212) 465-8877.

Wanted! Student Activities Chair

Wanting to help out local EE students? The North Jersey IEEE Section seeks a Student Activities Chair (SAC) for the upcoming academic year. The SAC coordinates activities among Student Branches and acts as a liaison between the local section and our IEEE student members in area colleges.

Frequently, our student members have little chance to interact with practicing engineers in the field. The North Jersey SAC helps our section reach out to them, mostly by simply keeping in touch with them. Our SAC primarily acts as a resource by fielding questions about the IEEE, and may plan such events as a Student Paper/Presentation Night, organize a local Speakers Bureau, or marshal willing sites for plant tours. Our former SAC is nearby, and willing to help you "come up to speed." Recent graduates are especially encouraged to consider this opportunity to turn students on to the benefits of IEEE. Please contact Ms. Amy Galarowicz to discuss this at (201) 818-3740 or via e-mail at a.galarowicz@ieee.org.

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, e-mail: a.e.galarowicz@ieee.org.

IEEE NORTH JERSEY
ONE DAY JAVA WORKSHOP
RAMADA INN, FAIRFIELD, NJ
9AM-4PM
SATURDAY OCTOBER 18, 1997

The North Jersey section is presenting a one day introductory JAVA workshop. No prior knowledge of JAVA is required but knowledge of a high level computing language such as Fortran, C+, P/L 1, is advisable. The workshop will include a live demonstration of JAVA and its applications with emphasis on visual programming for the Internet. The class will be taught by Professor Barry Burd of Drew University.

Topics include a discussion of the advantages of JAVA, comparison with similar languages, an overview of Object Oriented programming techniques, JAVA syntax fundamentals, designing classes and objects. The workshop also covers capabilities of the JAVA Application Programming Interface in interactive window-based applications using images, sound and animation.

Class size is limited and early registration is recommended. Phone reservations will not be accepted. Reservations received after October 11th will require a late fee of \$25. Please use the application form listed below.

WHERE: Ramada Inn, 38 Two Bridges Rd., Fairfield, NJ
WHEN: Saturday, October 18, 1997
COST: IEEE members \$150; Non-IEEE members \$225
CONTACT: Dr. Fred Chichester (973) 744-3065

REGISTRATION: JAVA ONE DAY WORKSHOP

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

Name: _____ IEEE No. _____

Affiliation: _____ Phone No. _____

Address: _____

Please enclose the required fee payable to North Jersey Section, IEEE

Signature _____

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 and 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 September 4 will require an additional fee of \$25. No reservations will be accepted after September 10.

WHERE: ITT Avionics, 100 Kingsland Road, Clifton, NJ.
WHEN: 12 classes, Thursday, September 11 through December 4, 1997, 6:30-9:00 PM.
COST: IEEE members \$220; Non-IEEE members \$335. Text book included.
CONTACT: Dr. Fred Chichester (973) 744-3065 (leave message) or Art Greenberg (973) 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: _____

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 September 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, September 11 through November 20, 1997, 6:30-9:00PM.
COST: With text book only: IEEE members \$235; Non-IEEE members \$335.
CONTACT: Dr. Fred Chichester (973) 744-3065 (leave message) or Art Greenberg (973) 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: _____