The IEEE Newsletter

Engineers Week Celebrates Turning Ideas into Reality

This year, February 22-28 is Engineer's Week. Banquets are held to honor engineering achievement, open houses and plant tours abound, and engineers flock into schools. Myriad educational outreach programs try to foster the fascination and intrigue with math and science that most of us feel everyday on the job. Fun, hands-on demonstrations challenge kids to think outside the box and to NOT be afraid of math and science. Are you interested in participating?

Current: area schools have signed up for the Faraday Lecture. This well-done, lively presentation uses professional actors portraying our electrical engineering forefathers. They tell interesting stories about electromagnetic concepts, targeted at junior high school students. This year's topic is "But What's the Use of It, Mr. Faraday?" and will cover the diverse applications of Faraday's discoveries (exact date TBA in February Newsletter). It is satellite linked from England every year the first week of February. England's IEE sponsors it, and IEEE-USA coordinates getting American IEEE members to go to schools the afternoon of the broadcast to be available for follow-up questions.

Ongoing: The North Jersey Section is in need of a Pre-College Education Coordinator. This person will build and maintain a local list of interested volunteers who can be available for judging science fairs, making classroom presentations, working with teachers, etc. as needs arise in the area. Currently, IEEE now only does something each February. Any effort to expand this will be welcome, and at your discretion. You will receive a wealth of information from IEEE headquarters about the many programs and offerings that exist, should you want to tap into those resources.

Interested in becoming North Jersey Section Coordinator? Interested in getting on our list of volunteers to help out occasionally? Interested in attending the 1998 Faraday Lecture? For any of these, contact interim Pre-College Education Chair Amy Galarowicz at (201) 818-3740 or a.galarowicz@ieee.org.

NJ Section PACE:
Section Chairman Forum

On January 8, 1998 the IEEE North Jersey Section Professional Activities Committee for Engineers (PACE) will host a forum for the incoming North Jersey Section Chairman Mel Lewis.

About the Talk

Mr. Lewis will present an outline of his plans for the North Jersey Section in 1998 and answer questions from the members.

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.

All Welcome!

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

Time: 6:30 PM, Thursday, January 8, 1998.
Place: Clifton Memorial Library, 292 Piaget Ave, Clifton, NJ, (973) 772-5500 or see Newsletter web page.
Information: Contact Rodney Cole (973) 299-9022, ext. 2257.

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

Tuesday Evenings, February 24 – May 12, 1998
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 Inter- face (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 February 14 will require an additional fee of $25. No reservations will be accepted after February 24.

WHERE: ITT Avionics, 100 Kingsland Road, Clifton, NJ.
WHEN: 12 classes, Tuesday, February 24 through May 12, 1998, 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: Mr. Naz Simonelli, 68 Woodmont Drive, Randolph, NJ 07869-3740

Name:_____ IEEE No.:_____

Affiliation:_____ Phone No.:_____

Address:_____

_____

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

Signature: _____

North Jersey Section Activities January 1998

Jan. 7–"NJ Section Executive Committee Meeting" – 7:00PM, ITT, 100 Kingsland Road, Clifton, NJ. Keith Saracinello (973) 515-8829 or k.saracinello@ieee.org.

Jan. 8–"Section Chairman Forum" – NJ Section PACE, 6:30 PM, Clifton Memorial Library, 292 Piaget Ave, Clifton, NJ. Rodney Cole (973) 299-9022, ext. 2257.

Upcoming Meetings

Feb. 4–"NJ Section Executive Committee Meeting" – 7:00PM, ITT, 100 Kingsland Road, Clifton, NJ. Keith Saracinello (973) 515-8829 or k.saracinello@ieee.org.

Feb. 24-April 28–"C/C++ Windows Programming" – North Jersey Section, Tuesday Evenings, 10 sessions, 6:30-9:00PM, Smiths Industries, 7-9 Vreeland Road, Florham Park, NJ. Dr. Fred Chichester (973) 744-3065 (leave message) or Art Greenberg (973) 492-1207.

Feb. 24-May 12–"Visual Basic 5.0" – North Jersey Section, Tuesday Evenings, 12 sessions, 6:30-9:00PM, ITT Avionics, 100 Kingsland Road, Clifton, NJ. Dr. Fred Chichester (973) 744-3065 (leave message) or Art Greenberg (973) 492-1207.

Members and Non-Members Welcome
PLEASE POST

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

Tuesday Evenings, February 24 – April 28, 1998
Smiths Industries
7-9 Vreeland Road, Florham Park, 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 February 14 will require a late fee of $25. No reservations will be accepted after Feb. 24.

WHERE: Smiths Industries, 7-9 Vreeland Road, Florham Park, NJ.
WHEN: 10 Sessions, Tuesday, February 24 through April 28, 1998, 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: Mr. Naz Simonelli, 68 Woodmont Drive, Randolph, NJ 07869-3740

Name:_____ IEEE No.:_____

Affiliation:_____ Phone No.:_____

Address:_____

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

Signature: _____