



The IEEE

Newsletter

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

NJ Communications Society: **Teletraffic Modeling and Management for Wireless Networks**

On February 17, 1997, New Jersey Center for Multimedia Research, NJIT's Center for Communications and Signal Processing Research, and IEEE Communications Society North Jersey Chapter will present a talk on "Teletraffic Modeling and Management for Wireless Networks." The speaker will be Sirin Tekinay.

About The Talk

This talk provides an end-to-end view of wireless network design and planning processes, and highlights ongoing research areas. Specifically, problems in user demand modeling, resource allocation, mobility management, network optimization and growth planning will be discussed. Some research results on subscriber mobility modeling, channel assignment and handoff handling will be presented.

About The Speaker

Sirin Tekinay received her Bachelor of Science and Master of Science degrees both in EE with concentration in communications and signal processing from Bogazici University, Istanbul in 1989 and 1991 respectively. She completed her Ph.D. in Telecommunications at the Department of ECE, School of Information Technology and Engineering, George Mason University, in 1994. Until recently, she has worked as a Senior Member of Technical Staff at the Wireless Systems Engineering Group of NORTEL. Dr. Tekinay has recently joined Bell Laboratories, Lucent Technologies, Forward Looking Wireless Technology Lab as a Member of Technical Staff. Her research interests include teletraffic modeling, resource and mobility management, performance analysis, and network architecture design.

She has authored many publications in wireless communications and related areas. Dr. Tekinay is a member of the Eta Kappa Nu, and IEEE Communications and Vehicular Technology Societies, IEEE technical committees on Personal Communications, Communications Switching and Vehicular Technology. She is the Operations Editor of the IEEE Communications Magazine. She is serving on the Technical Program Committee of Globecom 1997 and the executive committee of MOBICOM'97.

Time: 11:00 AM, Monday, February 17, 1997

Place: NJIT, 202 ECE Center, Newark, NJ.

Information: Nirwan Ansari (201) 598-3670 or Zoran Siveski (201) 596-5710. Please check <http://megahertz.njit.edu/~ieeenj/comm.html> for latest update.

New Fellows IEEE North Jersey Section Announced December 1996

Steven J. Hillenius, *Lucent Technology*
Felix Paul Kapron, *Bellcore*
Chin-Hui Lee, *Lucent Technology*
David Lee, *Lucent Technology*
Lawrence O'Gorman, *Lucent Technology*
Richard V. Snyder, *RS Microwave*

Congratulations!

National Engineering Design Challenge

The Junior Engineering Technical Society (JETS), the National Society of

Professional Engineers (NSPE) and the National Talent Network (NTN) co-sponsor the National Engineering Design Challenge (NEDC). In this contest, high-school students design and build a "product" related to an engineering design problem and specific scenario. All engineer volunteers are welcome to help develop programs, organize the competitions, serve as advising engineers to teams, or conduct post-competition programs for the participants. Contact Daniel Kunz or Catherine McGowan at JETS, 1420 King Street, Alexandria, VA, 22314, telephone (703) 548-5387.

Fellow Nominations

Fellow Grade Nomination Kits for 1997 are available directly from the IEEE Fellow Committee Staff Secretary in Piscataway and can be requested over the phone at (908) 562-3843. Nominators are reminded that the Nomination Form, Society Evaluation Form and all Reference Forms must be submitted by March 14, 1997. Additional information is available from Ken Oexle, Section Award Chairman, who can be reached at (201) 386-1156.

FEBRUARY, 1997

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NEWSLETTER STAFF

EditorKeith Saracinello
Business Manager.....Theresa Saracinello

Deadline for receipt of material is the 1st of the month preceding the month of publication. All communications concerning business matters, including advertising, should be addressed to: The IEEE Newsletter, c/o Girard Associates, Inc, 6 Robert Terrace, P.O. Box 455, Mt. Arlington, NJ 07856, (201) 398-5524. Editorial material should be e-mailed to the editor at ksara@ix.netcom.com or sent to 96 Everett Rd, Parsippany, NJ 07054, (201) 515-8829.

IEEE NJ SECTION HOME PAGE

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

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.

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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

on

VISUAL BASIC

Tuesday Evenings, February 25 - May 6, 1997

Merrimac Industries

41 Fairfield Place, West Caldwell, NJ

The IEEE is offering an evening course entitled "Visual BASIC." 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.

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 Feb. 21 will require an additional fee of \$25. No reservations will be accepted after Feb. 24.

WHERE: Merrimac Industries, 41 Fairfield Place, West Caldwell, NJ.
WHEN: 11 classes, Tues. evenings, Feb. 25 through May 6, 1997, 6:30-9:00 PM.
COST: IEEE members \$210; Non-IEEE members \$310. Text book included.
CONTACT: Dr. Fred Chichester (201)744-3065 or Art Greenberg (201) 492-1207.

REGISTRATION: VISUAL BASIC

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: _____

North Jersey Section Activities

February 1997



Chairman's Column

We have started a new year in the North Jersey section and readers of the Newsletter will note that there have been some changes. Hopefully they will be to the benefit of the membership. First, those who use our educational committee's courses have all noted that they are no longer held at GPU. After many years of hosting the courses, GPU is unable to offer their facilities any longer. We have scrambled and located two new locations. KDI and Merrimac Industries have graciously offered to allow us to hold classes there one night a week. We hope to locate a third facility by next month and, if we do, we will offer a third course.

Our internet home page has been active for some time now and is a good source for up to the minute announcements. In addition we are encouraging local industry to announce job openings. Members can also make appropriate announcements by contacting Mel Lewis. His phone, FAX and email are all listed on the Newsletter masthead.

We currently have ten technical and three professional chapters that hold regular meetings. We also hold mini-shows and seminars. These are usually free, and the membership is invited and encouraged to attend.

Finally, if anyone has an idea for the section, please contact any member of the executive committee and tell us. And of course, for anyone who wants to join the executive committee or just attend the meetings, we meet at 7:00 PM on the first Wednesday of each month at GEC Marconi Hazeltine, 164 Totowa Rd. in Wayne.

Feb. 5—"NJ Section Executive Committee Meeting" – 7:00 PM, Plant 11, GEC-Marconi, 164 Totowa, NJ. Alan Stolpen (201) 822-1300, ext. 2416.

Feb. 13—"Financial Advantage Program at the North Jersey Section" – NJ Section PACE, 6:15 PM, Clifton Public Library, 292 Piaget Ave., Clifton, NJ. Dr. Robert Sinusas (201) 228-3941.

Feb. 17—"Teletraffic Modeling and Management for Wireless Networks" – 11:00 AM, NJIT, 202 ECE Center, Newark, NJ. Nirwan Ansari (201) 598-3670 or Zoran Siveski (201) 596-5710.

Feb. 25-Apr. 29—"Seminar: C/C ++ Windows Programming"—IEEE NJ Section, Tuesday evenings, 6:30-9:00 PM, KDI Triangle Co., 60 S. Jefferson Road, Whippany, NJ, Dr. Fred Chichester (201) 744-3065 (leave message).

Feb. 25-May 6—"Seminar: Visual BASIC"—IEEE NJ Section, Tuesday evenings, 6:30-9:00 PM, Merrimac Industries, 41 Fairfield Place, West Caldwell, NJ, Dr. Fred Chichester (201) 744-3065.

Upcoming Meetings

Mar. 5—"NJ Section Executive Committee Meeting" – 7:00 PM, Plant 11, GEC-Marconi, 164 Totowa, NJ. Alan Stolpen (201) 822-1300, ext. 2416.

Mar. 20—"Electric Vehicle Technology" – 7:00 PM, GPU Energy, 300 Madison Ave., Morristown, NJ, Ken Oexle (201) 386-1156.

Mar. 25—"Cellular Interference Management For Integrated Services Over CDMA"—7:30 PM, Fairleigh Dickinson University, River Road and Route 4, Teaneck, NJ, Muscarelle Building (room to be determined). Mel Lewis (914) 968-2500, ext. 2304 or Art Greenberg (201) 492-1207.

Members and Non-Members Welcome PLEASE POST

IEEE North Jersey Section Newsletter Web Page

The latest information regarding meetings and activities can be found at the new North Jersey Section Newsletter web page:

<http://menger.eecs.stevens-tech.edu/~nar/inews/>

Check it out!

NJ Section PACE:

Financial Advantage Program at the North Jersey Section

At the February 13, 1997 meeting of the NJ Section's Professional Activities Committee for Engineers, the topic will be "Financial Advantage Program at the North Jersey Section." The speakers will be Robin Morton and Adrienne White.

About The Talk

IEEE membership offers a variety of personal and financial benefits through the IEEE Financial Advantage Program.

IEEE is strongly committed to serving the complex professional and personal needs of members and is constantly developing new ways to serve, by offering benefits beyond the traditional ones provided through most professional societies today.

This exclusive program is designed to help members and their families take control of their financial future, making available a number of quality products with special cost savings and other value-added benefits that non-IEEE members simply cannot get.

The meeting will focus on the benefits and services offered through Financial Advantage, including Financial Services/Planning and Investing, Insurance, Business Services and more. The discussion will include program updates and new services underway.

About The Speakers

Robin Morton, Manager - Financial Advantage Program (Staff)

Robin has been with the IEEE since 1989, and holds a B.S.B.A. in Finance and International Business from American University, Washington, D.C. Prior to her position as Manager, Robin served as a staff Investment Analyst.

Adrienne White, Administrator - Financial Advantage Program (Staff)

Adrienne has been with the IEEE since 1994 and holds a B.A. in Spanish from Moravian College, Bethlehem, P.A. Prior to joining the Financial Services Department, she worked in Member Services, specifically addressing membership issues in Region 9/South America.

Time: 6:15 PM, Thursday, February 13, 1997. Free refreshments will be provided.

Place: Clifton Public Library, 292 Piaget Ave., Clifton, NJ. Call (201) 772-5500 for directions or see Newsletter Web Page.

Information: Dr. Robert Sinusas (201) 228-3941.

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

Tuesday Evenings, February 25 - April 29, 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 9 weekly lectures which will be quite interactive. Homework will be assigned and corrected. The specific topics listed below will be covered. The instructor is Dr. Edward (Ted) Byrne, owner of a local software consultant business.

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 Feb. 19 will require a late fee of \$25. No reservations will be accepted after Feb. 24.

WHERE: KDI Triangle Electronics Inc., 60 S. Jefferson Rd., Whippany, NJ.

WHEN: 9 Sessions, Tues. evenings, Feb. 25 through April 29, 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); 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: _____