In Memoriam
Maitland McLarin
Maitland McLarin, long-time member of the North Jersey Section Executive Committee, died suddenly on December 20, 1995 at the Denville campus of Northwesten Covenant Medical Center of an apparent heart attack. He was 70.
Mr. McLarin served as Chair of many Section Committees including a stint of tens of years as Historian. He will be sorely missed at the regular monthly meeting of the Executive Committee.
Maitland was an engineer at Picatinny Arsenal for 18 years before retiring in 1985. He received his bachelor's degree in electrical engineering from Brown University in 1965.
Mr. McLarin served in the Marine Corps during World War II.

Leap At The Chance To Become A Senior Member
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 Doctorate degrees each count for one more year. Get information on becoming a Senior Member by contacting Don Weinstein, Kulite Semiconductor, One Willow Tree Rd., Lonzia, NJ, 07069-3339, (201) 481-0900, ext. 234, mornings, or Amy Bissmeyer, Video Equipment Corp., 170 Railroad Ave., Paterson, N.J. 07501, (201) 742-2381, ext. 24.

Access the IEEE North Jersey Section World Wide Web home page at:
http://hertz.njit.edu/~ieenj

FEBRUARY, 1996
FEBRUARY 1996
Volume 42 Number 8
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The following is reprinted from the file "info aliases" made available by IEEE headquarter. New members of the IEEE membership list, which allows forwarding of mail to your service and then to you, all transparently.

The IEEE maintains a "Directory Service" in which active IEEE members can register their Internet identity and e-mail "mail name" alias, usually "name@" where "name" is the initial and, "name" is the last name. To resolve ambiguities, we may have to request that new members use some other means of making names unique.

If you wish to have your Section, Branch, or Society listed, please obtain and read a copy of the text file available as "info.startup." If you do not* send an e-mail message to "postmaster" asking how to contact "so-and-so," or regarding what services are available. Send such requests to "info@ieee.org" which is a mailing list for announce of services and announcements. If you send such a message to "postmaster" or "admin," it just has to be re-forwarded to the list before it will receive attention.

Mel Lewis, IEEE North Jersey Section Internet Coordinator

Student Presentation Night
Wednesday, February 20, 7:00 PM
STEVENS INSTITUTE OF TECHNOLOGY

Once again the North Jersey Section will host a presentation night for current and prospective members to present electric engineering related papers. Any undergraduate student can present a research, writing, and presenting a paper is strongly encouraged. It is an early opportunity in expressing ideas relating to engineering. Subject matter should be confined to engineering design, management, or social aspects of electrical, mechanical, electronic, and software development. Abstract will be submitted to Sunday approximately one month before the date due to a false requirement of technical sophistication. The important thing is that students get the chance to practice presentation skills in front of the audience. This will be an opportunity for students of local IEEE members from many fields and backgrounds.

The North Jersey Section 1996 Student Presentation Night will be held 7:00 PM, Wednesday, March 20th at Stevens Institute of Technology. Each presentation should be limited to several minutes, including accuracy, use of visual aids, organization, and audibility, among others. Speakers will have ten minutes to present their paper. The authors will then be given an opportunity to ask questions. The audience is encouraged to ask questions. The audience is encouraged to take notes and ask questions. The authors will then be given an opportunity to ask questions. The audience is encouraged to take notes and ask questions.

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**IEEE NORTH JERSEY SECTION SEMINAR**  
**OBJECT-ORIENTED C++ PROGRAMMING**  
**TUESDAYS**  
**APRIL 2 - JUNE 11, 1996**  
**JERSEY CENTRAL POWER & LIGHT COMPANY, 300 MADISON AVENUE, MORRISTOWN, NEW JERSEY**

The North Jersey Section IEEE is offering an evening course entitled “Object-Oriented C++ Programming.” Object-oriented programming has been described as the biggest advance in computer programming since the creation of higher level languages 30 years ago. Instead of focusing on functionality (what the programs do) it focuses on the natural objects comprising the problem and how they, and their capabilities, are modeled in the program. C++ is, by far, the most widely used language today for object-oriented design and programming. This course will cover both the concepts of OOD and their implementation in C++ code. The course will begin with a review of common aspects of C and C++, but this time will be too brief to learn fundamentals of programming. THEREFORE ONLY THOSE WHO ARE FAMILIAR WITH PROGRAMMING CONCEPTS SHOULD REGISTER FOR THE C++ COURSE.

There will be ten weekly lectures and homework will be assigned and corrected. The topics listed below will be covered. The instructor is Dr. Edward (Ted) Byrne, owner of a software consultant business.

**TOPICS**

1. Review common elements of C and C++: punctuation and key words, variable naming, typing and scope, functions and subfunctions, arguments, operators and assignments, conditionals and logical variables, looping and testing, handling text strings, arrays and structures, pointers.
2. Concept of Object-Orientation: objects and classes of objects, methods and messages, encapsulation and abstraction, overloading of functions and operators, inheritance and polymorphism.
3. C++ improvements to C: new commands and operators, comments, stream I/O, function prototypes, more explicit typing and linking.
4. C++ implementation of objects: what is a C++ object, data and method functions within an object, public, private and friend, static and dynamic objects, constructors and destructors.
5. Encapsulation and abstraction within C++ objects: references and aliases, scope control operator, this object, overloading, functions, operators.
6. Inheritance and polymorphism among C++ objects: parent class or object, extending classes, redefining object data and methods, multiple inheritance.
7. C++ I/O streams: standard I/O, formatted I/O with manipulators, disk and device I/O.
8. C++ library classes and their use: characteristics of a good library class, conversion base classes, video base classes, window base classes, database base classes.
9. Overall program structure with C++ objects: how to lay out a C++ program, how to reuse classes in a program, how to test and evolve a C++ program, how to find errors and debug C++ object programs.
10. Recent topics: object-oriented design methodologies, templates and the standard template library, namespaces and interactive program design.

Class size will be limited to a maximum of 25 with a minimum registration of 15. Early registration is recommended. Phone reservations will NOT be accepted. Reservations accepted after March 15, 1996 will require an additional late fee of $25. No reservations will be accepted after March 22, 1996.

**WHERE:** Jersey Central Power & Light Company, 300 Madison Avenue, Morristown, N. J.

**WHEN:** Ten sessions, Tuesday evenings, starting April 2, 1996, 6:30 PM to 9:00 PM

**Cost:** With Text Book and Borland Turbo C++ Compiler, IEEE Members $300, Non-IEEE Members $400

**Contact:** Mr. John A. Baka at (201)455-8534 (Business)

**REGISTRATION OBJECT-ORIENTED C++ PROGRAMMING**

TO: Mr. John Baka, Distribution Engineering, JCP&L Company, 300 Madison Avenue, Morristown, NJ 07962-1911

Name
Affiliation
Address

Check if Borland Turbo C++ Compiler is needed or not Y [ ] N [ ]

Please enclose required fee made payable to "NORTH JERSEY SECTION IEEE"

Signature

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**North Jersey Section Activities**

**February 1996**

**Feb. 7**—"NJ Section Executive Committee Meeting"—7:00 PM, Plant 11, GEC-Marconi, 164 Totowa Road Totowa, NJ, Serge Goboenko (201) 785-3073 (H).

**Feb. 8**—"Wheelchairs For The Brain?"—NJ Section PACE, 7:30 PM, JCP&L Co. 300 Madison Ave., & Punch Bowl Bd., Morristown, NJ. Dr. Michael Liechtieman (201) 471-0721.

**Feb. 15**—"Adjustable Speed Drive Systems Harmonics"—PES & IAS, New York & LI Chapter, 5:30-7:30 PM, Con Edison, 4 Irving Place, 19th Floor Auditorium, NYC. For information: Ralph Tatino (718) 904-4526.

**Feb. 15**—"Introduction To Computer Programming In C"—Metropolitan Sections EMBS NJ/NJ & LI, 7:15 PM Registration, 7:30 Lecture, Rockefeller University, Weiss Room 305, 1200 York Ave., NYC. Joel Levit (212) 478-7805.

**Feb. 20**—"The Engineer As A Leader In This Century And Beyond"—Metropolitan Engineering Societies Council, United Engineering Center, 345 East 47th Street, NYC. See article for details.


**Feb. 21**—"Micropoint Strip-Element Phased Arrays"—NJ Section MTT-SA/P-S Chapter and NJIT, 7:00 PM, NJIT, Engineering & Computer Center, ECE C202, 2nd Floor Conference Room, Newark, NJ, Chandra Gupta (201) 635-4409.


**Upcoming Meetings**

**Mar. 6**—"NJ Section Executive Committee Meeting"—7:00 PM, Plant 11, GEC-Marconi, 164 Totowa Road Totowa, NJ, Serge Goboenko (201) 785-3073 (H).

**Mar. 20**—"1996 Student Presentation Night"—NJ Section, 7:00 PM, Stevens Institute of Technology, Hoboken, NJ, Amy Bissmeyer (201) 742-2381, ext. 24 or (201) 229-5505 (elev.).

**Apr. 2-June 11**—"Seminars: Object-Oriented C++ Programming"—NJ Section, 10-Sessions, JCP&L Co., 300 Madison Ave., Morristown, NJ. John Baka (201) 455-8534.

**April 30-May 2**—"ELECTRO ’96"—Sponsored by Region 1, METSAC and CNEC, IEEE, New York and New England Chapters, ERA, Garden State Convention Center, Somerset, NJ. (800) 322-9332.

**Members and Non-Members Welcome**

Access the IEEE North Jersey Section World Wide Web home page at:

http://hertz.njit.edu/~ieee/
The NJ Computer Chapter is Making Illegal Work. On February 26, 1996, the IEEE NJ Computer Chapter will present a talk on "Making Illegal Work: A Reality: The NJ Computer Project." The speaker will be Jean-Luc Gautier. This talk will introduce "foreign language interfaces," in order to allow the run-time exchange of parameters among programs written in different languages with possibly different strengths. Further, he will discuss the array partitioning work as well as other software cache systems to provide a larger run-time system.

This project is a collaboration of teams from the University of Southern California, Stanford State University, and the Lawrence Livermore National Laboratory.

About The Speaker
Jean-Luc Gautier received his MSc and PhD degrees in Computer Science from the University of California, Los Angeles. Since graduating in '82 he has been on the faculty of the Department of Electrical Engineering Systems, University of Southern California, where he is currently an Associate Professor.

All Welcome
You do not need to be an IEEE member to attend. Please bring your friends.

Time: 2:30 PM, Monday, February 26, 1996.
Place: NJIT, CJS Conference Room, ITD-415, Newark, NJ.
Information: Prof. Andrew Sohn, EEE-CIS Department, NJIT, (201) 596-2515.

WRI International Symposium Sept. 11-13, 1996
Second Call For Papers
Weber Research Institute along with technical co-sponsors, the IEEE Microwave Theory and Techniques Society, IEEE Antennas and Propagation Society in cooperation with IEEE Microwave and Wave Metropolis Sections is sponsoring a three-day WRI International Symposium on Directions For The Next Generation Of Millimeter-Wave Circuits. Microwave and millimeter-wave integrated circuits are becoming increasingly important in modern military and commercial communication systems. Current trends are towards multi-chip, high-frequency, multifunctional, multichip and multilayer integration, covering millimeter and submillimeter wave regions. The integration of diverse subfunctions, such as lightwave, mm-wave, microstrip circuits, digital circuits and ferrite devices, together with conventional microwave or millimeter-wave devices, circuits and antennas, would allow implementation of large systems on a single chip. Research on advanced materials, processes, performance packaging methods, advanced CAD tools, measurement and testing techniques, as well as material and fabrication technology, are being directed to meet the new challenges.

Continuing on Weber Research Institute's series of symposia, we will host an international symposium on the recent developments and research directions for the next generation of microwave and millimeter wave integrated circuits and systems, it will be organized as a three-day symposium, running in a single-session format of regular papers, poster presentations and panel discussions. The symposium will be held in our CATT Auditorium located at the Metrotech Center, Brooklyn, New York. Hotel accommodations will be available in the Manhattan area, conveniently connected to the conference site by subway. The extended versions of the papers will be published as a bound volume by Plenum Press, New York.

The topics of interest are as follows: Components and Devices; Novel Transmission Media; Printed Antennas and Phased Arrays; Millimeter 2 Integration; Interconnects and Packaging; Multifunctional Integration; Fabrication Technology; Measurement, Testing and Reliability; Application Systems; CAD Tools and Environment; Analytical/Computational Techniques; Guided Wave Effects and EM Theory.

TIME TABLE:
* Final Call For Papers: February, 1996
* Submission of One-page Summary: March 30, 1996
* Notification of Acceptance: May 30, 1996
* Extended Manuscript and Details of Publication: At the Conference Registration.

Send two copies of one-page abstracts addressed to Prof. Nirod K. Das, Conference Co-Chair, 1996 WRI Symposium, Polytechnic University, Route 110, Farmingdale, NY 11735. For further information contact Tel: (516) 755-4288; Fax: (516) 755-4404; E-mail: rdas@plram.poly.edu.

IEEE NORTH JERSEY SECTION SEMINAR
INTERNET USERS
TUESDAYS, FEBRUARY 26, MARCH 26, 1996
JERSEY CENTRAL POWER & LIGHT CO.
300 MADISON AVENUE
MORRISTOWN, NEW JERSEY

The Network Section is offering an evening course entitled "Internet Users." The Internet is becoming increasingly popular to people and businesses alike. The role of personal computers in our society is changing from a means to increase personal productivity to a means of conveying and assimilating information. This information is being made available by the growth of the internet. This course will cover some of the underlying principles that allow the internet to operate, as well as the practical knowledge of how to use the required software to get connected and begin using the information resources the internet has to offer.

Students interested in taking this course should be computer literate, have access to an IBM compatible personal computer with at least a 9600 baud modem and be willing to subscribe to an internet access provider (most of the course material will be available to Macintosh users, however, the software requirements will differ). The course includes a suite of internet software products (SPRY's Internet in a Box) including a special edition textbook, The Whole Internet Users Guide by Ed Krol. The instructor will be Steven Morisse, an author and instructor of courses on internet usage.

There will be five weekly lectures and homework projects will be assigned and discussed in class. The topics listed below will be covered.

1) The background and history of the internet. Who is responsible for administration of the internet? Who pays to maintain and improve the internet? What is the future of the internet?
2) How does the internet work? Including TCP/IP networking theory, the Domain Name System (DNS), Server/Client model and an introduction to common internet application software.
3) How do you get connected to the internet? Allowing the students to access and finally connect to the internet.
4) How to select, configure and use the software required including FTP, TELNET, EMAIL, USENET NEWS, Gopher and World Wide Web browsing.
5) Using the World Wide Web and how to find information. Introduction to HyperText Markup Language (HTML) and how to create your own Web Documents.

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 9, 1996 will require an additional late fee of $25. No reservations will be accepted after February 16, 1996.

WHERE: Jersey Central Power & Light Co., 300 Madison Avenue, Morristown, N.J.
WHERE: Five sessions, Tuesday evenings starting February 20, 1996, 6:30 PM to 9:00 PM
WHERE: Contact: Mr. John Baka at (201) 455-834 (business)

REGISTRATION "INTERNET USERS"

To: Mr. John Baka, Distribution Engineering, JCP&L Co., 300 Madison Avenue, Morristown, NJ 07962-9111
Name ___________________________  
Affiliation ________________________  
Phone Number ____________________  
Address ___________________________

Please enclose required fee payable to North Jersey Section IEEE

Signature ___________________________