

The *Pulse* of Long Island



November 1, 2002 - Vol. 52 No. 9

The monthly newsletter of the Long Island Section of the Institute of Electrical and Electronics Engineers, Inc.

Chair's Message

The Long Island Section is in the process of rejuvenating our website. We looked at the great job James Colotti did in developing the EMC Chapter website, and we asked if he would be interested in upgrading the Sections. He was kind enough to agree to volunteer his time. I recommend that you check it out at www.ieee.li.

At the past Executive Committee meeting, the members unanimously endorsed Dr. Charles Rubenstein as its nominee for candidacy as Region 1 Delegate-elect/Director-elect for 2004-2005. Charles is actually a member of the New York Section, which has also endorsed his nomination, as he works in the city. He is a professor at Pratt University. Charles is the present Area B Chair, and as such has been a great help to the Long Island Section. (The Long Island Section is one of 6 Sections included in Area B. Region 1 of the IEEE has a total of four Area Chairs to support the 21 Sections.). Charles lives on Long Island and even before his present responsibility has supported the Section's events and conducted Seminars for the Section. Charles really cares about the membership, and I wish him well in his candidacy.

Last month I noted that the Executive Committee voted to approve the petition for the creation of a Nuclear and Plasma Sciences Chapter for Long Island, and forwarded the petition to Region 1 for approval. I can now report that Region 1 has approved the partition. I appreciate the efforts that Dr. Arlene Zhang and Dr. Ralph James have expended and continue to expend to make this happen and be a successful Chapter. Dr. James has recently moved to Long Island, and is nationally renowned in the field of developing radiation detection devices. He presently is the Assistant Laboratory Director for Energy, Environment & National Security at Brookhaven National Laboratory, and is very involved in Homeland Security matters. I'm hoping to hear him speak at the NPS Chapter meeting in the near future.

Regarding Homeland Security matters, I noted in a previous column that Northrop Grumman is in the process of planning an event addressing "Integration of Emerging and Convergent Technologies" for companies on Long Island. This effort is still on going. I believe we on Long Island have a heightened awareness of Homeland Security after the events of 9-11. The capabilities that exist on the Island in this regard are quite impressive.

(continued on page 2)

The PULSE is now available on-line!

To get the on-line PULSE and get up-to-date information about the Section, visit our web site at:

http://www.ewh.ieee.org/r1/long_island/ and www.ieee.li

IEEE Long Island Section Election Results

By: Babak Beheshti, Chair, Tellers Committee

The Tellers Committee is pleased to announce and certificate the election results held in October of 2001 for the slate of candidates of the IEEE Executive Committee Officers. The results of the ballots reflect the following elected officers for the 2003 term:

CHAIR

Dave Mesecher

FIRST VICE CHAIR

Christian DiFranco

SECOND VICE CHAIR

Daniel Rogers

SECRETARY

TREASURER

David Wolff

Meeting Announcement

The consultants program for Nov. 6 2002 at 7:00 PM at Briarcliffe College, is a presentation entitled; "Outrageous Contract Clauses" collected by Irwin Weitman. This is a collection of clauses that have appeared in the contracts that some companies have proffered to some of our members. Questions and answers from the floor.

(continued from page 1)

I attended a ribbon cutting ceremony at Polytechnic University celebrating the opening of their new graduate center. It is quite an impressive facility. At the event, it was good to see the support that the Engineering profession has from our local politicians. They appear to support the efforts from academia and industry in Homeland Security matters. That hadn't been the case companies in the defense industry in years past, which is partly the reason so many engineering jobs in this sector have disappeared.

In a couple of weeks we will be celebrating Thanksgiving. I was thankful to see my son go away to college. But I'll be thankful to see him come home for a couple of days. I hope the rest of the membership will be celebrating with their families as well.

William Rooney, Chair
W.rooney@ieee.org

Long Island Section Officers

Chair. William Rooney
1st Vice Chair Dave Mesecher
2nd Vice Chair. . . Christian DiFranco
Secretary. Lisa Zannella
Treasurer. Daniel Rogers

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PULSE Deadlines

For Dec. 2002: **11-5-02**
For Jan. 2003: **12-5-02**

Consultants Network of LI

The Consultants Network of LI maintains a referral service of Engineering, Computer, Managerial and Technical Professionals. Call or write for more information. There is no charge to the client for this service.

Voice Mail 516-379-1678
P.O. Box 931
Patchogue, NY 11772-0931
www.consult-li.com

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Full Page.....\$575.00 per issue
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1/3 Page \$250.00 per issue
Business Card.....\$85.00 per issue

other size ads.....Contact the editor

IEEE Long Island Section Calendar

(No membership requirements, no registration, no fees at meeting unless otherwise noted.)

Please visit our web site at <http://www.ieee.li> for up to date listings, changes and corrections.

November 6, 2002 - LI Consultant's Network at 7:00 PM at Briarcliffe College, is a presentation entitled; "Outrageous Contract Clauses" collected by Irwin Weitman. For further info call Irwin Weitman (631) 266-2428.

November 6, 2002 - IEEE New Jersey Coast Section, & Monmouth University Present, Career Management Workshop, *Wednesday November 6, 2002, 5:15 – 9 PM, Wilson Auditorium Monmouth University.* Visit <http://ewh.ieee.org/r1/njcoast> for registration & workshop details

November 13, 2002 - Long Island IEEE Computer Society Meeting 11/13/02, "The Requirements Iceberg", Dr. Daniel Berry, University of Waterloo, at EDO, Commack Road, Deer Park. For more information, contact Daniel Rogers, at drogers@ieee.org

November 11, 13, 2002 - Multi-Threaded Programming for Embedded Systems Seminar - See ad on page 10.

November 25, 2002 - EXCOM meeting at 6:00 PM, The Weeping Willow on Route 110 in Farmingdale

December 4, 2002 - Nuclear Detection and Homeland Security By Dr. Ralph B. James, Fellow IEEE, *Associate Laboratory Director, Brookhaven National Laboratory*, 4:00 pm – 5:00 pm, (Refreshments will be served at 3:30 pm), Berkner Hall Auditorium, Brookhaven National Laboratory, Upton, NY 11973. To register, please send attendee's name, affiliation, and citizenship information to Dr. Zhang at arling@ieee.org and Dr. Rehak at rehak@bnl.gov by Nov. 20th 2002.

December 10, 2002 - "Printed Wiring Board Design and EMI / EMC Considerations", by Mr. James Colotti, a Staff Engineer at Telephonics. at Telephonics (Farmingdale) at 7pm. An RSVP is required by 12/3 -- Please do this via willard@ieee.org OR r.j.mohr@ieee.org -- For interested persons who do not have E-mail access, a message may be left at (631)265-2282.

December 16, 2002 - EXCOM meeting at 6:00 PM, The Weeping Willow on Route 110 in Farmingdale

EDA AD
here

IEEE Computer Society and
IEEE Long Island Section
Present

Multi-Threaded Programming for Embedded Systems Seminar
November 11,13—2002

Overview

As the embedded applications become more complex, use of commercially available RTOSes is becoming more popular, particularly in mid to high end applications. The Long Island Section of IEEE and its Computer Society are presenting a two session (3 hours per session) training course "Multi-Threaded Programming for Embedded Systems ". This seminar is intended to familiarize engineers with this tool.

Who Should Attend

This course is intended for engineers and developers who have a background in embedded systems programming (using microprocessors and microcontrollers) and programming in a high level language (preferably C, but not required). No background in multi-tasking or multi-threaded programming is necessary.

Key Benefits

- Learn the advantages of using Real-Time-Operating-Systems (RTOS) in solving embedded applications that require multiple concurrent tasks to execute
- Learn the terminology and fundamental key concepts of RTOSes
- Learn the limitations and requirements an RTOS puts on the processor

Content

What you will learn: Review of fundamentals, Traditional approaches to executing multiple tasks and their shortfalls, how an RTOS solves these shortfalls by means of task synchronization and inter-task communication, RTOS terminology: queues, tasks, semaphores, review of currently available commercial RTOS vendors.

Seminar Coordinator and Instructor

Babak D. Beheshti has been designing embedded systems hardware and software using Motorola, Intel, Microchip and TI chips. He has also instructed the basic and intermediate microprocessor seminars for IEEE in the past.

Location and Times

The seminar will be given in Melville, 6:00 to 9:00 PM. Registrants will be advised of the exact location and receive an acknowledgment by mail shortly after registration. The seminar

wholly the responsibility of IEEE Long Island Section and the instructor.

For further information contact Babak Beheshti via email at b.beheshti@ieee.org or by phone at 516-686-7437.

Fees will be refunded in full if the seminar is canceled or the registrant cannot be accommodated due to capacity limitations. Other refunds will be considered.

Registration Fees

If Payment Due Public	IEEE Member	Student/Life	
Nov. 5	\$285	\$235	\$190
Nov 10	\$335	\$285	\$200

Registration Form

**Multi-Thr. Prog. For Embedded Systems
Nov. 2002**

Make checks payable to "IEEE Long Island Section".
Send form to Babak Beheshti, 101 Caffrey Avenue,
Bethpage, NY 11714-1435

Name: _____

Company: _____

Home Address: _____

City and Zip: _____

Hphone: _____

Bphone: _____

Fax: _____

email: _____

Member #: _____ Grade: _____

Amount enclosed: _\$ _____

The Long Island Chapter of the IEEE NPSS Presents
Nuclear and Plasma Sciences Lecture

Nuclear Detection and Homeland Security



By

Dr. Ralph B. James, Fellow IEEE

*Associate Laboratory Director
Brookhaven National Laboratory*

Date: Dec. 4th, 2002
Time: 4:00 pm – 5:00 pm
(Refreshments will be served at 3:30 pm)
Place: Berkner Hall Auditorium
Brookhaven National Laboratory
Upton, NY 11973

The Lecture is free and open to public; **Advance Registration is required** for gate access. To register, please send attendee's name, affiliation, and citizenship information to Dr. Zhang at arling@ieee.org and Dr. Rehak at rehak@bnl.gov by Nov. 20th, 2002. Please visit the Web-page: www.bnl.gov/bnlweb/maps.html for directions to BNL.

Dr. Ralph B. James

Dr. James is the Associate Laboratory Director for the Energy, Environment and National Security (EENS) Directorate with the U.S. Department of Energy's Brookhaven National Laboratory. The Directorate encompasses Brookhaven's Department of Environmental Sciences, Department of Energy Sciences & Technology, Department of Nonproliferation & National Security, Center for Data-Intensive Computing, and Research and Business Operations. He is also chair of the Brookhaven's Counter-terrorism Working Group to conceptualize and coordinate efforts to develop technologies that can fight terrorism.

Dr. Ralph B. James was born in Nashville, TN in 1953. He received BS in Engineering Physics with highest honors from the University of Tennessee in 1976, MS in Physics from Georgia Institute of Technology in 1977, MS and Ph.D. in Applied Physics from California Institute of Technology in 1978 and 1980. He was a Eugene P. Wigner Fellow at Oak Ridge National Laboratory from 1981-1984, and a Distinguished Researcher and Manager at Sandia National Laboratories from 1984-2001.

Dr. James is a leading scientist in radiation detection, and leader of Brookhaven's Homeland Security Initiative. Quoted from IEEE NPSS, "Dr. James' research results are extensive and fundamental, and the impact of his work has been immediate and lasting." Dr. James has authored more than 300 scientific publications, served as editor of 11 books. He has 7 patents, and 2 patents pending. Dr. James won Discover Magazine's 1997 Innovator of the Year award for developing radiation detection devices, and is a three-time winner of R&D Magazine's R&D 100 Award (1998, 2000, 2001) for developing a new method to grow semiconductor crystals and various compact sensors to detect and image radiation.

Dr. James is a Fellow of IEEE (Institute of Electrical and Electronic Engineers), Fellow of APS (American Physical Society), and Fellow of SPIE (International Society of Optical Engineering).



IEEE New Jersey Coast Section
&
Monmouth University
Present



Career Management Workshop

Wednesday November 6, 2002

5:15 – 9 PM

*Wilson Auditorium
Monmouth University*

Life Management Skills for Success

By Bala Prasanna – AT&T

Life outside the cubicle -

Preparing for a successful career

By Donald Herres, P.E.,

Workshop is FREE, but you MUST register

**IEEE members, non-members, engineers, and non-
engineers Any Student can benefit from this!**

Pizza, Soda & workshop proceedings are on us – FREE!

Please visit

<http://ewh.ieee.org/r1/njcoast>

for registration & workshop details

**Networking Mentoring Conflict -Resolution ENGLISH As A
Second Language Continuous -Learning Resume-
Building What-Is-Your-Brand Leadership Harassment
Office Politics DON'T -Sweat-The-Small-Stuff**

Professional Activities Report

by Irwin Weitman, P.E.

On Nov. 6, 2002 the IEEE Consultants Network of Long Island (LICN) will hold it's monthly meeting at Briarcliffe College in Bethpage. IEEE members are invited to attend all meetings at 7:00 PM at the College located at 1055 Stewart Ave. See map at the LICN web site: www.consult-li.com select "next meeting" then "Briarcliffe" for directions and a map. Or if you want to go directly to the map, the URL is <http://consult-li.com/images/Briarcliffe.jpg>

The November meeting will have a PowerPoint presentation of consulting contract clauses that have been in contracts that potential clients have presented the some of our members during the years. They all have some potentially harmful content, to consultants. The presenter will be Irwin Weitman. The audience will be asked to comment about the content of each of these clauses. This should be an informative and possibly exiting session.

Were you aware of the fact that the resume's of employees and brochures of consulting engineers are becoming more similar as time goes by. Ten or more years ago the resume' was similar to a documentary list of the employment history of the engineer in chronological order.

The brochure of the consultant was sort of a sales brochure advertising the skills and accomplishments of the consultant. Now, both list the skills, and specific specialties of the individuals. Networking was always useful in finding a job or assignment. Now it is the primary source. The companies are very specific in searching for the exact skills they are looking for the specific position they are trying to fill. There are still needs for the extraordinary generalist but the company needs the resources and acumen to spot and retain such a person.

PACE would like to provide the resources of IEEE to help those members who need help in enhancing their careers. Please let me know what you would like IEEE to do. I and IEEE would like to aid its members in this time of recession.

Contact me at <mailto:i.weitman@ieee.org>

MEETING ANNOUCEMENT

Long Island IEEE Computer Society Meeting 11/13/02

Title: The Requirements Iceberg

Speaker: Dr. Daniel Berry, University of Waterloo

Location: EDO, Commack Road, Deer Park

For more information, contact Daniel Rogers, at drogers@ieee.org

IEEE ALIAS VIRUS ALERT NEWS

Recently a number of IEEE volunteers on various IEEE aliases received one or more virus alerts from the IEEE server. These messages indicate the IEEE's anti-virus protection program is working. They are not a result of a worm/virus originating from the IEEE.

These recent virus-alert messages are most likely a result of the KLEZ worm/virus that is commonly found throughout the Internet. The worm/virus steals the email address book of an infected computer and sends infected dummy messages to names in the stolen address book. The IEEE email server detects and deletes the virus, and sends an alert message to both the recipients and the sender. The recipients see both the original message without the infected portion (e.g. usually an infected attachment) and the virus-alert message. The worm/virus is pervasive, and the virus scanning service provide by IEEE is preventing it from spreading throughout the IEEE community.

For additional questions, contact Gilberto Santiago, Email & Security Services, g.santiago@ieee.org.

Retlif Ad
Here!

LIFE MEMBERS & LM CHAPTERS - A VALUABLE SECTION RESOURCE

To achieve LM status, a member must be 65 or more, and age plus the number of years of IEEE membership must equal at least 100. As of January 2002, there are 29,528 members who achieved this status. With such a large number of LM's, there are sure to be some LM's in your Section who would like to be involved in IEEE activities.

A LM Chapter is similar to an IEEE Affinity Group but the IEEE Life Members Committee rather than the Section supports it (rebate for activity is not supplied through the Section).

Life Members are encouraged to form Life Member Chapters within their own Sections. All you need is the name of the organizer and a list of LM's within your Section who indicate they will participate if a LM Chapter is formed. After you obtain this information, please forward your request to your Regional LM Chapter Coordinator. The SAMIEEE database can assist you in identifying LM's who resident in your Section.

Check out the LMC web site (<http://www.ieee.org/lmc>) for additional information on LM Chapters. You can also send an email to LM-activities@ieee.org.

Poly Ad

COMING IN 2003: THE IEEE MEMBER DIGITAL LIBRARY

Coming in 2003, the new IEEE Member Digital Library will allow IEEE members to access individual online articles from IEEE-published journals, magazines and conference proceedings with one convenient subscription. Subscribers will pay a monthly fee to access up to 25 articles and papers a month from the current year and the last five years worth of publications. Access will be through the IEEE Xplore (R) online delivery platform.

"This new offering will greatly enhance the scientific and education goals of the IEEE," said Dr. Raymond D. Findlay, IEEE President. "In addition, IEEE publishes the most highly cited information in EE and Computer Science, and online access to a wider range of information will greatly enhance our members' careers."

The IEEE Member Digital Library provides IEEE members with direct online access to the articles and papers in IEEE journals and conference proceedings without requiring subscriptions to the individual publications.

"IEEE members tell us that the number one reason they join is to gain access to technical data," said Findlay. "The IEEE Member Digital Library will prove to be a marked addition to the information IEEE members already gain from individual journal subscriptions and technical society memberships."

IEEE members renewing or joining for the 2003 year will be eligible to subscribe to the IEEE Member Digital Library. Anyone subscribing by 31 December 2002 will receive their first month of the IEEE Member Digital Library for free. The service will be available in January 2003.

For more information on the IEEE Member Digital Library or the first-month free offer, visit www.ieee.org/ieeemdl

October 8 Distinguished Lecturer Event

Bruce B. Willard

On 8 October the IEEE EMC Chapter "kicked off" their program of bi-monthly events with a presentation by IEEE Distinguished Lecturer Dr. Lothar (Bud) Hoefft. The lecture, entitled "A View of Electromagnetic Life Above 100 MHz -- An Experimentalist's Intuitive Approach," provided the attendees with some sobering reminders that circuit cards, wires, and components are not always what they appear to be... We were also reminded that as important as it is to make measurements to understand what these circuit cards, wires, and components are really doing, measurements are not always what they appear to be either, so we had better do "sanity checks" to be sure!

Dr. Hoefft spent quite a bit of time meeting with our 41 attendees, both before and after the presentation, and from the feedback that we received, this direct communication period proved to be a positive experience for attendees and Dr. Hoefft.

Dr. Hoefft has graciously given us permission to place his slides from the presentation onto the EMC Chapter Website: <http://www.ieee.li/emc.htm>

Our next event will focus upon the design of circuit cards. James Colotti, a Staff Engineer at Telephonics, will be making the presentation at Telephonics, in Farmingdale, NY on 10 December at 7 PM, and we will provide coffee, cookies, etc. To expedite the Security process at Telephonics, RSVPs are again required -- So, if you are interested in attending, please send an E-mail to either: willard@ieee.org, or r.j.mohr@ieee.org. If you do not have E-mail access, please leave a message at (631)265-2282. EMC Chapter meetings are also scheduled for December, April and June and details on location / registration will be provided at a later date.



The Long Island Section of IEEE Computer Society and
LISTnet's Long Island Software Process Improvement Network

Are presenting a seminar titled:

“The Requirements Iceberg and Various Icepicks Chipping At It”

WHO SHOULD ATTEND? Persons who are interested in the Requirements Elicitation process.
The seminar is free and open to all.

WHAT ARE THE KEY BENEFITS? Learning about the Requirements Elicitation Process.



Speaker:

Dr. Daniel M. Berry, University of Waterloo, Canada

Abstract:

This talk observes that determining what the requirements for a software system should be can be the hardest part of the software life cycle, perhaps an order of magnitude more difficult than specifying them formally. This hard part has been given the name “requirements elicitation”. It reviews past work in requirements engineering and remarks that in the past, this work generally avoided dealing with elicitation and has focused on specification. It then surveys recent and current work and shows how it focuses on cracking the elicitation problem.

Seminar Coordinator:

Daniel Rogers, Computer Society Chair of the IEEE Long Island Section.

Speaker Bio:

Daniel M. Berry got his Ph.D. in Computer Science from Brown University in 1974. Prof. Berry's current research interests are software engineering in general, and document processing and requirements engineering in the specific. He has taught software engineering for over 25 years at UCLA and the Technion. He has consulted about software engineering in general, inspections, formal methods, and requirements engineering. He has been programming for over 35 years and still enjoys it. More information about him can be found at <http://se.uwaterloo.ca/~dberry/>.

Location and Time:

The seminar will be presented from 6:00 to 8:30 PM Wednesday, November 13, 2002 located at EDO Corporation, Commack Road, Deer Park, NY. Refreshments will be provided. The seminar is free and open to all. If you wish to attend, please contact the coordinator Daniel Rogers by email at drogers@ieee.org (please indicate if you are not an American Citizen, as the facility must badge Foreign Nationals differently). A confirmation email will be sent. The seminar is wholly the responsibility of IEEE Long Island Section and the speaker.

Directions: Leave Long Island Expressway (Route 495) at Exit 52 – South (Commack Road). Proceed 3 miles crossing Long Island Railroad tracks; turn left at signal light, EDO's (AIL) main entrance. Proceed to Visitor's Parking Lot on your right.

30 YEARS AGO
By: Rod Lowman, Historian

In 1972 cable television was a means of getting good television reception from remote stations or into urban areas blocked by tall buildings with poor access to antenna locations. However, the IEEE speaker of the month, Peter Lubell foresaw vast communication networks of cable which not only transmitted television pictures but data transmission of all types which he called "Cablecasting". It has taken a number of years but many of the things he predicted are now becoming reality. He discussed the principal characteristics of contemporary Cable TV system (Headends, Trunk and Distribution Networks). He also discussed the application of more sophisticated electronic technology (integrated circuits, microwaves and computer-aided design) to this industry.

Peter was consulting in the field of microwave communications especially in cable television and data transmission. He had a long term association with the microwave communication industry developing point-to-point links for commercial and educational television, as well as cable TV. A past chairman of both the L. I. chapters of the MTT and Com. Societies, Peter was elected Chairman of the L.I. Section four years later. After a number of years with Cablevision in which he helped to bring about many of his predictions, he served as the Director of Business Development for Rainbow Networks Communications.

Another historical note – The L.I. Section had polled all of the congressional candidates for election in 1972 on a number of engineering issues. Almost all of the candidates favored building nuclear power plants to satisfy the future power needs of L. I. All of the candidates favored research to develop fast breeder reactors, magnetohydrodynamic power cycles, fusion reactors, solar energy and tidal power.

It was a busy period for the Section as Gunther Geiss, chairman of the 25th Anniversary Committee was starting to collect memorabilia for the celebration, the PULSE was publishing the history of the first and second 10 years of the section, and the section was organizing a tour to Cape Canaveral to view the last moon launch, Apollo 17.



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